# EdTech
## in the WILD

edited by
## royce kimmons

# EdTech in the Wild

## critical blog posts

Royce Kimmons

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# Introduction

## Or 'Why Collect EdTech Blog Posts?'
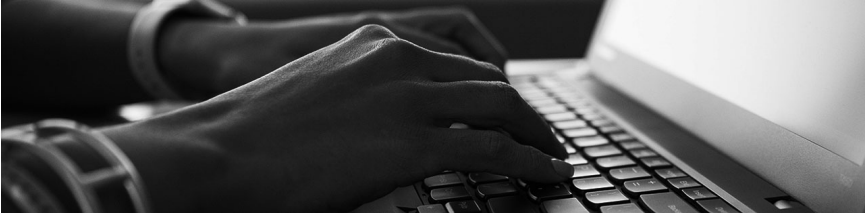
## Scholar-Blogger

She feverishly types at her keyboard, the bright screen casting shadows from her fingers in the otherwise dark room. Fighting back grogginess, she shakes her head with a jolt and checks the time.

It's 1am.

"Why am I doing this?" She whispers in a frustrated but controlled voice, careful not to wake her spouse in the next room.

A hundred tasks rush through her head as she remembers her duties as an academic: papers that need grading, proposals that need submitting, data that need analyzing, students that need mentoring ... and now what ... blogs that need blogging?

"*Why* am I doing this?" She asks again with a defeated slump in her shoulders.

She knows that her department chair or her dean will never read the blog. She also knows that even if a thousand people read her post and were inspired to solve important problems, there's no way to make a

tenure committee see that the practice has value.

"If it doesn't yield a publication or grant funding, then it's not worth doing," they would say with a patronizing air, and they'd have a point ... at least as far as tenure and promotion are concerned.

*Then why do it? Why carve out my precious time to blog when I could be taking this idea and shaping it into an article in a reputable journal?*

She smiles wryly as she slowly presses the "Submit" button.

*Probably because I actually want people to read it.*


The first time someone recognized my name from my academic work was as a graduate student. I was sitting at my computer in an office where I worked my 30-hour-a-week job as a graduate assistant. A student from another department had dropped in and was conversing with my colleague about a technology issue when all of a sudden he blurted across the room:

"Wait, are you Royce Kimmons?"

I replied with a hesitant and quizzical "Yes..."

He explained: "I just watched your YouTube video on TPACK. It was great!"

I'd like to pretend that these situations arise frequently, but they don't, and I'd like to pretend that for every citation that one of my peer-reviewed research articles receives a group of knowledge-hungry educators was edified by its scientific rigor, but I know that doesn't happen either.

In fact, in the same timeframe that it took my most widely-cited article

to garner a measley 200 citations, [that unscripted YouTube video](https://edtechbooks.org/-BdY) [https://edtechbooks.org/-BdY], which I made in 5 minutes for no other reason than to test out a new document camera, had received over 80,000 views.

Honestly, I didn't even like that video. It was sloppy, inaccurate, nasal, and meandering. It had low production value, and it didn't get into any of the complexities that we academics relish. It was simplistic, fast, and dirty ... and yet, that's probably why it has had a greater reach than (likely) all of my carefully-crafted research studies, despite the fact that those underwent rigorous peer review and have been published in many top journals.

Rather, that video seems to be valuable and useful to people precisely because it's raw and wild, without access barriers and without the pretense and sophistry that we often use to dress up research articles in the pomp and circumstance that academia has taught us knowledge artifacts deserve.

In short, the value of information resources in a digitally-networked world plays by fundamentally different rules than academics are used to, and our institutions (ahem ... tenure and promotion) and publishing venues are ill-equipped to grapple with these new realities.

I'm not saying anything new here, because just about everyone recognizes that our current and evolving knowledge ecosystem plays by different rules than previous historical paradigms have and that there may be inherent tensions between doing scholarship that is highly-rigorous and nuanced and doing scholarship that appeals to a mass audience. But this leads us to a point of fateful decision:

Do we, on the one hand, ignore these new realities that shape the impact of our scholarly work in the world, or do we alternatively embrace them, enshrine them, and move forward recognizing that the (potentially) simplistic, fast, and unregulated artifacts of a wild web may be some of the most impactful information resources of our age?

The former ignores emerging realities of a digital world, while the latter invites a legitimacy crisis for scholarship.

The fact that you are even reading this now means that you, like me, are probably at least intrigued by the latter option, because otherwise, why would you be reading an openly published book that has not undergone peer review or relied upon the heretofore established orthodoxies of academic publishing?

Maybe it's because you recognize with me that some of the most important dialogue happening today isn't happening within the confines of academic journals but is unfolding daily on scholars' blogs, on Twitter, and on Facebook, and that much of that dialogue is inherently unpublishable (e.g., too radical) or simply unfolds too quickly to be captured in journals (e.g., by the time any research was published on MySpace, MySpace was already obsolete).

This book represents my own first attempt at dealing with this issue by collecting and enshrining the words of various bloggers in our discipline in a way that represents and signals value toward the diversity of voices in our scholarly community. As such, I have engaged in this work as a miniscule attempt at subverting academic publishing expectations for the purpose of helping the reader to understand some of the real history of the educational technology field as it has unfolded "in the wild" or on the web through artifacts that traditionally would not otherwise be aggregated, published, and cited.

In this volume, I've collected various blog posts from educational technology scholars and leaders. My process went as follows:

1. In January 2019, I solicited blog and post nominations from educational technology folks on Twitter via a community-editable Google Spreadsheet;
2. I utilized the Moz online service [https://moz.com/] to identify the posts from each blog that were most often linked to from

another domain as a proxy for determining what might be the most impactful posts from each blog;

3. I read through all nominated blog posts and the top three to five posts provided by Moz to identify those that most closely fit the goals of this volume;

4. I included up to two posts from each nominated author (for the purpose of ensuring inclusivity of diverse voices over dominance by a few voices);

5. When necessary (i.e., when posts were not shared under an [open license [https://edtechbooks.org/-MQu]](https://edtechbooks.org/-MQu)), I contacted the authors of these posts for permission to include them in the volume as well as to solicit biographical information;

6. And then I coded and organized these posts under an emergent set of categories to provide some semblance of structure and narrative between them without (hopefully) losing the valuable messines and rhizomatic nature of the history of the field.

Not all selected authors responded to my request for permission to include their posts in this volume, and it is certainly the case that there are many, many other important and influential EdTech bloggers out there whose work is worthy of inclusion in this volume but was not included. Though this book is a first, finite attempt at gathering some of these artifacts, I hope that others will engage in similar pursuits to collect additional blog posts to address the necessary omissions that my own limited approach necessitated.

I have organized included blog posts under the following four topical sections to aid my readers' navigation and understanding, though the sections are by no means exclusive of one another, and each blog post could meaningfully be included under more than one section:

A. [Innovation & Disruption [https://edtechbooks.org/-wve]](https://edtechbooks.org/-wve)
B. [Openness & Sharing [https://edtechbooks.org/-snf]](https://edtechbooks.org/-snf)
C. [Identity & Participation [https://edtechbooks.org/-gMF]](https://edtechbooks.org/-gMF)
D. [Equity & Power [https://edtechbooks.org/-HoN]](https://edtechbooks.org/-HoN)

A description of the topics is provided on each section's introduction page, and I have also provided a [List of Author Blogs and Twitter Accounts \[https://edtechbooks.org/-IFW\]](https://edtechbooks.org/-IFW), which lists each author along with their Twitter and blog information; an [Index by Author \[https://edtechbooks.org/-zhC\]](https://edtechbooks.org/-zhC), which lists all authors and their accompanying blog posts; and an [Index by Topic \[https://edtechbooks.org/-yTH\]](https://edtechbooks.org/-yTH), which lists common keywords across blog posts along with links to the paragraphs within the posts in which the terms are mentioned. I have also provided some appendices, which include a [List of EdTech Blogs \[https://edtechbooks.org/-NPD\]](https://edtechbooks.org/-NPD), both included and not included, and [Recommendations for Formal Learning \[https://edtechbooks.org/-Cwi\]](https://edtechbooks.org/-Cwi), which provides some activity ideas for using this book in a classroom setting.

Furthermore, I have tried to maintain similar formatting in each blog post as is present in the original, and links to original blog posts are provided whenever possible. I have similarly tried to keep typographic corrections minimal (e.g., not converting everything to APA formatting) so as to maintain much of the "wild" flavor of the posts themselves.

And finally, a note on my own motivations and vision for doing this.

As a pre-tenure faculty member, I began this work knowing fully that it would not "count" for anything, that there would be no academic gold stars, and that many of my colleagues would not view this process or its product as valuable in the least. And yet, I feel that this project has been worthy of such prioritization and attention precisely because these blog posts represent diamonds in the academic rough: words and ideas that are worthy of our scholarly attention but that are often ignored because of where they come from - the non-peer-reviewed spaces of personal blogs.

If not already, I hope that this value will become evident to you as you

make your way through each post and grapple with the ideas, stories, and voices that each one represents. After all, the world is full of stories, and one cannot understand what educational technology has been or what it is now without hearing and understanding those stories.

# List of Author Blogs and Twitter Accounts

Most of the communication with blog post authors that was required to create this book was accomplished through Twitter.

Almost all included blog authors actively used the platform at the time of compilation, and a list of their names and associated blog URLs and Twitter handles is provided below.

| Name and Blog Link | Twitter Handle |
| --- | --- |
| **Alan Levine [https://cogdogblog.com/]** | **@cogdog [https://twitter.com/cogdog]** |
| Benjamin Doxtdator [https://edtechbooks.org/-qpG] | @doxtdatorb [https://twitter.com/doxtdatorb] |
| Bon Stewart [https://edtechbooks.org/-NmZ] | @bonstewart [https://twitter.com/bonstewart] |
| Brian Lamb [https://abject.ca/] | @brlamb [https://twitter.com/brlamb] |
| Catherine Cronin [http://catherinecronin.net/] | @catherinecronin [https://edtechbooks.org/-Bap] |
| Clint Lalonde [http://clintlalonde.net/] | @edtechfactotum [https://edtechbooks.org/-QSE] |
| Dave Cormier [http://davecormier.com/] | @davecormier [https://edtechbooks.org/-FLm] |
| David Wiley [http://opencontent.org/] | @opencontent [https://edtechbooks.org/-ZWn] |
| Frances Bell [https://francesbell.com/] | @francesbell [https://edtechbooks.org/-KfM] |
| George Veletsianos [http://www.veletsianos.com/] | @veletsianos [https://edtechbooks.org/-wYH] |

| Name and Blog Link | Twitter Handle |
|---|---|
| Jim Groom [https://bavatuesdays.com] | @jimgroom [https://twitter.com/jimgroom] |
| Karen Cangialosi [https://karencang.net/] | @karencang [https://twitter.com/karencang] |
| Kate Bowles [http://musicfordeckchairs.com] | @katemfd [https://twitter.com/katemfd] |
| Lorna M. Campbell [http://lornamcampbell.org/] | @lornamcampbell [https://edtechbooks.org/-uJg] |
| Maha Bali [https://blog.mahabali.me/] | @bali_maha [https://twitter.com/bali_maha] |
| Martin Weller [http://blog.edtechie.net/] | @mweller [https://twitter.com/mweller] |
| Michael Feldstein [https://mfeldstein.com/] | @etwiterate [https://twitter.com/etwiterate] |
| Rajiv Jhangiani [http://thatpsychprof.com/] | @thatpsychprof [https://edtechbooks.org/-mEu] |
| Rob Farrow [https://edtechbooks.org/-iAP] | @philosopher1978 [https://edtechbooks.org/-Ezb] |
| Robin DeRosa [http://robinderosa.net/] | @actualham [https://twitter.com/actualham] |
| Rolin Moe [http://edutechnicalities.com/] | @rmoejo [https://twitter.com/rmoejo] |
| Royce Kimmons [http://blog.roycekimmons.com] | @roycekimmons [https://edtechbooks.org/-CfD] |
| sava saheli singh [https://edtechbooks.org/-Gio] | @savasavasava [https://edtechbooks.org/-CHp] |
| Scott Leslie [https://scottleslie.ca] | @sleslie [https://twitter.com/sleslie] |
| Scott McLeod [https://edtechbooks.org/-Nxk] | @mcleod [https://twitter.com/mcleod] |
| Sheila MacNeill [https://howsheilaseesit.net/] | @sheilmcn [https://twitter.com/sheilmcn] |

| Name and Blog Link | Twitter Handle |
| --- | --- |
| Sherri Spelic [https://edifiedlistener.blog/] | @edifiedlistener [https://edtechbooks.org/-adRS] |
| Stephen Downes [https://www.downes.ca/] | @downes [https://twitter.com/downes] |
| Tannis Morgan [http://homonym.ca/] | @tanbob [https://twitter.com/tanbob] |
| Tony Bates [https://www.tonybates.ca/] | @drtonybates [https://edtechbooks.org/-FkM] |
| Tressie McMillan Cottom [https://tressiemc.com] | @tressiemcphd [https://edtechbooks.org/-tvi] |

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In the case of each chapter, link and author information is provided to direct you to the original author of the blog post. Any copyright questions should be directed to them directly and not to the book editor(s).

# 1

# Innovation & Disruption
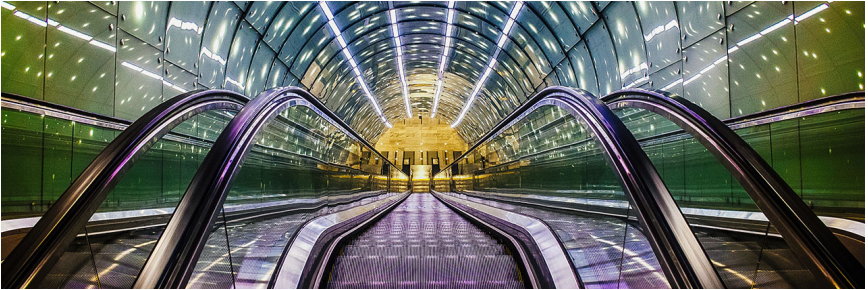


Perhaps the most foundational assumption of the educational technology discipline is that new technologies can influence learning. How this happens and to what extent varies, with some believing that technology can serve as a positive force for change itself (technocentrism) and others arguing that its true benefit is to allow us to engage age-old problems and inequities with new life and in new ways.

Additionally, learning doesn't happen in a vacuum, and educational institutions are shaped by the social, cultural, economic, and political realities that surround them. Technology can play a role in shaping these realities by placing techno-cultural pressures on societies more generally (e.g., expectations that everyone has and will use smartphones), which then influence how educators and schools are expected to teach students (e.g., bring your own device initiatives).

Throughout conversations about technology's role in society at large

and within education in particular, technology is often referred to through an innovation mentality, wherein new practices are expected to gradually supplant the old and students, teachers, and educational institutions are expected to adopt new habits and practices to become (or remain) cutting-edge. Alternatively, narratives of disruption, borrowed heavily from business, are also commonly used to articulate technology's role as a catalyst for change within entrenched systems. That is, the technology is seen to have potentially transformative power upon the system to shake it from its sleeping state to shape it into something new.

In this section, blog authors grapple with what innovation within educational technology has looked like over the years, whether technology has achieved its promises for transforming or disrupting the education space, and how scholars should approach innovation and disruption in their own spheres of influence.

# 25 Years of Ed Tech

## Themes & Conclusions

## Martin Weller

### Editor's Note

This was originally posted to [Martin Weller's blog
\[https://edtechbooks.org/-eyC\]](https://edtechbooks.org/-eyC) on September 5, 2018.

Now that I have completed the [25 Years of Ed Tech
\[https://edtechbooks.org/-hDS\]](https://edtechbooks.org/-hDS) series (which was actually 26 years,
because maths), I thought I'd have an attempt at some synthesis of it
and try to extract some themes. In truth, each of these probably
merits a post of its own, but I wanted to wrap this series up before the
[25 Year anniversary of ALT-C next week
\[https://edtechbooks.org/-qwP\]](https://edtechbooks.org/-qwP). Plus, tired.

**No country for rapidity** – one of the complaints, particularly from
outsiders is that higher ed is resistant, and slow, to change. This is
true, but we should also frame it as a strength. Universities have been
around longer than Google after all, and part of their appeal is their
immutability. This means they don't abandon everything for the latest
technology (see later for what tech tends to get adopted). If you're
planning on being around for another 1000 years then you need to be
cautious. We didn't close all our libraries and replace them with
LaserDiscs in the 90s. As the conclusion of the Educause piece I wrote
stated "it's no game for the impatient".

**Historical amnesia** – I've covered this before, but one of the characteristics of ed tech is that people wander into it from other disciplines. Often they wouldn't even know they're now in ed tech, they're doing MOOCs, or messing about with assessment on their psychology course, and they may spend a bit of time doing it and return to their main focus. Ed Tech can be like a holiday resort, people passing through from many destinations, with only a few regulars remaining. What this means is there is a tendency we see repeatedly over the 25 years for ideas to be rediscovered. A consequence of this is that it sees every development as operating in isolation instead of building on the theoretical, financial, administrative and research of previous work. For example, you probably don't get OER without open source, and you don't get MOOCs without OER, and so on.

**Cycles of interest** – there are some ideas that keep recurring in ed tech: the intelligent tutor, personalised learning, the end of universities. Audrey Watters refers to zombie ideas [https://edtechbooks.org/-ZDQ], which just won't die. Partly this is a result of the aforementioned historical amnesia, and partly it is a result of techno-optimism ("This time it really will work"). It is also a consequence of over enthusiastic initial claims, which the technology takes 10 years or so to catch up with. So while, intelligent tutoring systems were woefully inadequate for the claims in the 90s, some of that is justifiable in 2018. Also, just conceptually you sometimes need a few cycles at an idea to get it accepted.

**Disruption isn't for education** – given it's dominance in much of ed tech discourse, what the previous trends highlight is that disruption is simply not a very good theory to apply to the education sector. One of the main attractions of higher ed is its longevity, and disruption theory seeks to destroy a sector. Given that it has failed to do this to higher ed, despite numerous claims that this is the death of universities, would suggest that it won't happen soon. Disruption also plays strongly to the benefits of historical amnesia, which is a

weakness here, and the cycles of interest argue that what you want to do is build iteratively, rather than sweep away and start anew. There are lots of other reasons to distrust the idea of disruption, but in higher ed at least, it's just not a very productive way to innovate.

**The role of humans** – ed tech seems to come in two guises: helping the educator or replacing them. If we look at developments such as wikis, OER, CMC, blogs, even SecondLife, then their primary aim is to find tech that can help enhance education, either for a new set of learners, to realise new approaches, or sometimes, just try some stuff out. Other approaches are framed in terms of removing human educators: AI, learning analytics, MOOCs. Not necessarily – for example, learning analytics can be used to help human educators better support learners. But often the hype (and financial interest) is around the large scale implementation of automatic learning. As I mentioned in a [previous post \[https://edtechbooks.org/-vhE\]](https://edtechbooks.org/-vhE) education is fundamentally a human enterprise, and my sense is we (at least those of us in ed tech in higher ed) should prioritise the former types of ed tech.

**Innovation happens** – for all the above: change happens slowly, people forget the past, disruption is a bust, focus on people – the survey of the last 25 years in ed tech also reveals a rich history of innovation. Web 2.0, bulletin board systems, PLEs, connectivism – these all saw exciting innovation and also questioning what education is for and how best to realise it.

**Distance from the core** – the technologies that get adopted and embedded into higher ed tend to correlate closely with core university functions, which we categorised as content, delivery and recognition in our recent [OOFAT report \[https://edtechbooks.org/-BfE\]](https://edtechbooks.org/-BfE). So, VLEs, eportfolios, elearning – these kinds of technology relate very closely to these core functions. The further you get from these then the more difficult it becomes to make the technology relevant, and embedded in everyday practice.

So, that's really the end of the series.

## Suggested Citation

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# Martin Weller



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He is Director of the [OER Research Hub](#), and the ICDE Chair in OER. He regularly provide workshops and keynote talks on the use of social media by academics, open education, and online learning. He blogs at [http://blog.edtechie.net/about/.](#)

# If We Were Really Serious about Educational Technology

## Scott McLeod

### Editor's Note

This was originally posted to [Scott McLeod's blog [https://edtechbooks.org/-hxy]](https://edtechbooks.org/-hxy) on November 22, 2010.

If we were really serious about educational technology, we would... [here are 10 to get you started]

- show students how to edit their privacy settings and use groups in Facebook instead of [banning online social networks [https://edtechbooks.org/-xkU]](https://edtechbooks.org/-xkU) because they're 'dangerous' and/or 'frivolous';
- teach students to understand and contribute to the online [information commons [https://edtechbooks.org/-cXd]](https://edtechbooks.org/-cXd) rather than ['just saying no' [https://edtechbooks.org/-BkE]](https://edtechbooks.org/-BkE) to Wikipedia;
- put a robust digital learning device into every student's hands ([or let them bring and use their own [https://edtechbooks.org/-BBL]](https://edtechbooks.org/-BBL)) instead of pretending that we live in a pencil, notebook paper, and ring binder world;
- integrate digital learning and teaching tools into subject-specific preservice methods courses rather than marginalizing instructional technology as a separate course;

- understand [the true risk [https://edtechbooks.org/-ShY]](https://edtechbooks.org/-ShY) of students encountering online predators and [make policy accordingly [https://edtechbooks.org/-prV]](https://edtechbooks.org/-prV) instead of succumbing to scare tactics by the media, politicians, law enforcement, computer security vendors, and others;
- find out the exact percentage of our schools' families that don't have broadband Internet access at home rather than treating the amorphous 'digital divide' as a reason not to assign any homework that involves use of the Internet;
- [treat seriously and own personally [https://edtechbooks.org/-Mey]](https://edtechbooks.org/-Mey) the task of becoming proficient with the digital tools that are transforming everything instead of [nonchalantly chuckling [https://edtechbooks.org/-GME]](https://edtechbooks.org/-GME) about how little we as educators know about computers;
- recognize [the power and potential [https://edtechbooks.org/-dVV]](https://edtechbooks.org/-dVV) (and limitations) of online learning rather than blithely assuming that it can't be as good as face-to-face instruction;
- tap into and utilize the technological interest and knowledge of students instead of pretending that they have nothing to contribute;
- better educate and train school administrators rather than continuing to turn out new leaders that know virtually nothing about creating, facilitating, and/or sustaining 21st century learning environments;
- and so on…

What else could we add to the list?

> *If we were really serious about [educational technology issue], we would [?] instead of [?].*

It's almost 2011. Isn't it time for us to get serious about educational technology?

## Suggested Citation

# We Can't Let Educators Off the Hook

## Scott McLeod

### Editor's Note

This was originally posted to [Scott McLeod's blog](#) on September 29, 2010.

[Steve Dembo said](#):

> I don't see it as teachers spurning technology, or choosing not to take advantage of those new ideas and tools. I think most teachers don't even realize that there's a decision to be made. It's not a matter of choosing the red pill or the blue pill… if you don't know that there are even two pills available as options.
>
> … A teacher that has never heard of Blabberize or Glogster or Prezi, has never been introduced to the new world of online applications that are available to them. They likely don't follow blogs or listen to podcasts. They have probably never been to an EdTech conference or seen a TED talk. In short, they're just ordinary, average educators who aren't aware that there's a whole other world that they have easy access to… if they just 'take the blue pill'.

… I'm all for conversations about 'big' change. And yes, I agree, it's not the technology, it's the pedagogy. However, I also think that you need at least a minimal base to build from before you can have those conversations. And the vast majority of the educators in this country do NOT have that base yet.

Every day that I present for educators, I have a greater appreciate for how distorted the view is as seen through the eyes of a typical EduBlogger. In fact, the majority of the voices in the EdTech Community are so far ahead of the curve that it doesn't even seem like their on the same road anymore. Most educators have never listened to a podcast, much less created one. They've never edited a wiki, much less started one of their own. So how on earth could they be expected to have a rational conversation about the impact new technologies are having on the skill sets our students need? Simply put, they can't. The majority of the voices many of us listen to on a regular basis… actually represent just a tiny fraction of the educators out there. We're the minority, the outsiders, the ones who talk using strange terms involving words with far too many missing vowels.

[Darren Draper said](#):

the large majority of teachers that I know are very caring individuals that believe firmly in life-long learning. Most love teaching because making a difference in the lives of our youth can be the most rewarding profession on the planet. Most love kids, love community, and want to share. It's not that they don't want to try new things, it's not that they're lazy, and it's not that they're incapable. Rather, it's that their priorities don't always line up with

those of other progressive educators in and out of the blogosphere. I'm not saying it's right, but I am trying to describe the reality that so many in the blogosphere seem to misunderstand.

[Darren also said](#):

> Those content to lurk but still hesitant (or unable, for whatever reason) to contribute.

> The fact of the matter is that there exist a very large number of effective educators that are simply not able to contribute in any significantly recurrent amount to online discussion. All told, it's not that they're incapable of participating and it's not that they're unwilling. Rather, this group maintains perceived silence online because their professional priorities prohibit them from spending the time or energy required to provide plausible contribution.

To which I say, **NO, WE CAN'T LET EDUCATORS OFF THE HOOK**. Whether they're teachers or administrators or librarians or education professors, they have a voluntarily-assumed, paid responsibility to be relevant to the needs of children and education TODAY and to prepare graduates as best they are able for TOMORROW. 'Professional priorities' must be aimed at preparing students for the world as it is and will be. Otherwise, what are educators there for?

You can't 'firmly believe in life-long learning' and simultaneously not be clued in to the largest transformation in learning that ever has occurred in human history. Those two don't co-exist. Being a 'life-long learner' is not [ignoring what's going on around you](#); you don't get to

claim the title of 'effective educator' if you do this.



My fish hook

Look, it's not like those of us who now 'get it' were born with this knowledge. We weren't like this at the beginning. At some point in our personal histories we were the same as these educators that for some reason now get to be labeled as 'unable' to do this. ***Unable to do this? Poppycock.*** At no time in the personal computer / Internet era has this technology and social media stuff been easier to initiate. It's not like back when you needed to know computer coding. Want to use a wiki? Click Edit; type; click Save. Want to leave a comment on a blog? Click on Comments; type in your name, e-mail, school web site, and comment; click on Save. There isn't an educator alive who 'can't do that.' They engage in similarly-easy activity every time they search or order something online.

The reason many of us now 'get it' is because we realized that the world is changing, we recognized our responsibility to our students and schools, and ***we dived in and learned as we went***

*along*. Changing inertia into momentum, not waiting for someone to hand us the answer, taking responsibility ourselves rather than blaming others for our own inactivity – *that's what life-long learners do. That's what effective educators do. That's what we owe our children.*

If you're a teacher / administrator / librarian / education professor that somehow 'doesn't even realize [yet] that there's a decision to be made,' should you even be working in a school or university? Don't our children and our school systems need and deserve someone who's in a different place than you are? It's one thing to still be a learner; heck, we're all learners with this technology stuff. It's another to opt out or not even recognize the choice. If we look at what our kids need, shouldn't we replace you with someone else?

*It's not about us.* It's not about our personal or professional priorities and preferences, our discomfort levels, or any of that other stuff that has to do with *us*. It's about our students: our children and our youth who deserve at the end of their schooling experience to be prepared for the world in which they're going to live and work and think and play and be. That's the obligation of each and every one of us. No educator gets to disown this.

We can't let educators off the hook. Not a single one. So keep that fishhook firmly wedged in their mouths. Keep tugging them along on the line. Keep scooping them up in our nets. Feed them tasty tidbits if need be. Do whatever it takes to make this happen. But insist on them doing the same.
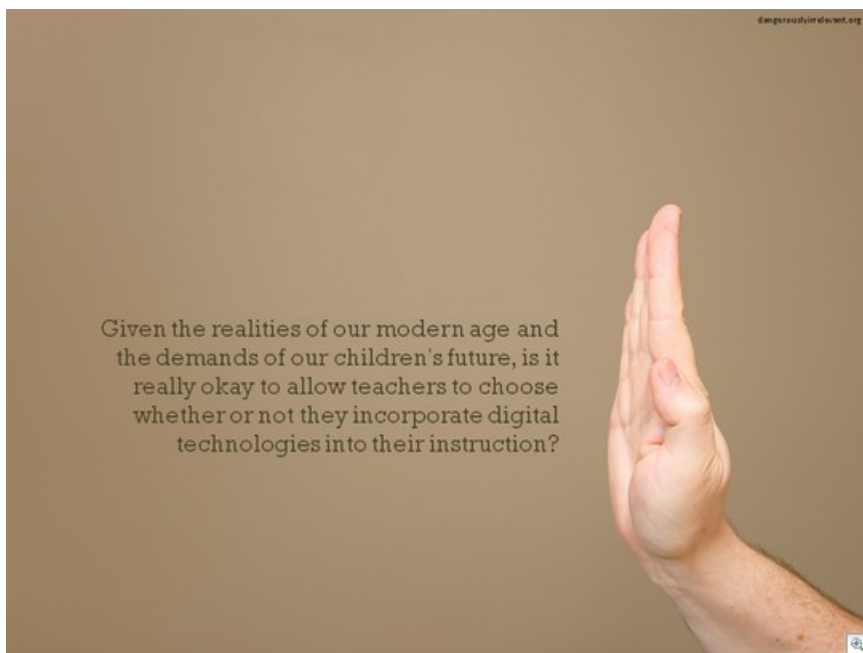
## What do you think?

Should teachers be allowed to choose whether or not they will integrate technology in their classrooms?

a. Yes
b. No

## Suggested Citation

*McLeod, S. (2019). We Can't Let Educators Off the Hook. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/off_the_hook*

# Interventions

## Brian Lamb

### Editor's Note

This was originally posted to [Brian Lamb's blog \[https://edtechbooks.org/-duB\]](https://edtechbooks.org/-duB) on July 17, 2017.

*Jim Groom invited me to crash the party on a position paper that he is writing. We were asked to "address pressing issues", and to offer "examples of current educational designs, models, and formats that push the boundaries of higher education." As the draft below indicates, I'm pretty far from a writing headspace these days, but it's always a blast to do things with Jim and I couldn't resist his kind offer. We'll see what comes of this, feedback is welcome.*

[As Jim Groom says in his paper \[https://edtechbooks.org/-gj\]](https://edtechbooks.org/-gj), there is really no fun in bashing the Learning Management System (LMS) anymore.

That particular buzz was definitely killed two years ago, when the EDUCAUSE Learning Initiative (ELI) published its [white paper on Next Generation Digital Learning Environments (NGDLE) \[https://edtechbooks.org/-NJ\]](https://edtechbooks.org/-NJ). The ELI is not widely regarded as a hotbed of radical, anti-ed tech sentiment, yet when it consulted "with more than 70 community thought leaders" it came to a sobering assessment of what is by far the most commonly used platform for online learning:

What is clear is that the LMS has been highly successful in enabling the administration of learning but less so in enabling learning itself. Tools such as the grade book and mechanisms for distributing materials such as the syllabus are invaluable for the management of a course, but these resources contribute, at best, only indirectly to learning success. Initial LMS designs have been both course- and instructor-centric, which is consonant with the way higher education viewed teaching and learning through the 1990s.

Describing the emerging needs as "interoperability; personalization; analytics, advising, and learning assessment; collaboration; and accessibility and universal design", the white paper promotes "a "Lego" approach to realizing the NGDLE, where NGDLE-conforming components are built that allow individuals and institutions the opportunity to construct learning environments tailored to their requirements and goals."

The white paper has been widely read in the field, oft-cited and in large part defining what a serious, forward-thinking learning technology strategy should be addressing. This significance is re-asserted by [the July-August 2017 issue of *EDUCAUSE Review* \[https://edtechbooks.org/-fPm\]](https://edtechbooks.org/-fPm), which is largely dedicated to reflections, updates and elaborations on the NGDLE vision. These pieces for the most part double down on the existing claims for significance. In one article [Stephen Laster of McGraw Hill Education argues \[https://edtechbooks.org/-HZW\]](https://edtechbooks.org/-HZW) that "the full implementation of the NGDLE framework not only will allow the edtech industry to cement the powerful role that technology can play in solving our efficiency and effectiveness issues but also will enable us to achieve an immensely positive impact on education at large."

The technological vision articulated by Laster is no less bold: "a seamless, open ecosystem that prioritizes flexibility over structure and in which institutions have the freedom to construct learning

environments that are central to their mission."

It's foolish to argue against calls for enhanced interoperability amongst learning technologies that promote seamless open ecosystems and free us to do what we need to do. That said, interoperability is hardly a new concept. Such calls sound all too familiar to those of us who worked to realize the decades-old vision of "learning objects", which promised to develop standards to enhance "interoperability" of learning materials that would lead to adaptive, personalized learning experiences. These efforts [cited LEGO blocks as their metaphor \[https://edtechbooks.org/-ZMK\]](https://edtechbooks.org/-ZMK) as well.

While it is a lovely thing to dream of a generational leap in the capabilities of our learning environments, of optimized bespoke toolset ecosystems interconnected seamlessly by APIs, it's difficult to envision the transformation described in these manifestos being implemented by the average institution, where most ed tech units have been hollowed out by more than a decade of outsourcing and austerity. Yes, there are elite institutions that can still afford to employ teams of developers, pay the vendor licenses and hire the consultants and contractors to make NGDLE-type learning environments happen. But those options seem remote, bordering on incomprehensible to those of us struggling to keep software and materials up to date, to build relationships with our communities, to provide the support our students and instructors need to get through the next semester.

As the Director of a "Learning Technology and Innovation" team, I feel obliged to align our efforts with best practices in the field, and to position us to take advantage of future developments. But so far I have seen little in NGDLE discourse that gives me a sense of what concrete steps I can take to position us for the next wave. ELI Director Malcolm Brown, a co-author of the 2015 white paper, hails the ["Zen-like emptiness" \[https://edtechbooks.org/-XpW\]](https://edtechbooks.org/-XpW) of the NGDLE, and its non-prescriptive nature: NGDLE "makes no

recommendation on vendor vs. local applications or on commercial vs. open."

It's not easy to articulate a vision for "what comes next", and given the amount of half-baked speculation I've spewed out over the years I am in no position to criticize. But the promise of NGDLE remains fuzzy and inchoate to most of us, a dream of algorithmic secret sauce that will rescue us in the near future if we trust in the industry to provide.

In the same issue of *EDUCAUSE Review*, [Chris Gilliard offers a welcome counterpoint [https://edtechbooks.org/-fIR]](https://edtechbooks.org/-fIR) to these happy technodreams, and also identifies a more pervasive danger of blind faith in what the digital future may hold if we simply accept things as they are.

> I call the web "broken" because its primary architecture is based on what Harvard Business School Professor Shoshana Zuboff calls "surveillance capitalism," a "form of information capitalism [that] aims to predict and modify human behavior as a means to produce revenue and market control."2 Web2.0—the web of platforms, personalization, clickbait, and filter bubbles—is the only web most students know. That web exists by extracting individuals' data through persistent surveillance, data mining, tracking, and browser fingerprinting and then seeking new and "innovative" ways to monetize that data. As platforms and advertisers seek to perfect these strategies, colleges and universities rush to mimic those strategies in order to improve retention.
>
> …a web based on surveillance, personalization, and monetization works perfectly well for particular constituencies, but it doesn't work quite as well for persons of color, lower-income students, and people who have been walled off from information or opportunities because of the ways they are categorized according

to opaque algorithms.

Gilliard moves the case that seemingly value-neutral or even liberatory technologies embed values that in fact reinforce injustice. [Tressie McMillan Cottom calls it [https://edtechbooks.org/-AXI]](#) ["the iron cage [https://edtechbooks.org/-Zoa]](#) in binary code. Not only is our social life rationalized in ways even Weber could not have imagined but it is also coded into systems in ways difficult to resist, legislate or exert political power."

Critics such as Gilliard, Cottom, Audrey Watters articulate a wider sense that the web has not only failed to achieve the breathless utopian ideals of a space in which traditional power relationships would be challenged, it is increasingly a mechanism for power to exert itself in ways that were unimaginable until recently. Higher education seems resigned to accepting the fundamental logic of surveillance capitalism as it stands, without asserting competing values or working to address its ill effects.

But if the implementation of NGDLE seems beyond the scope of action for most educational technologists, how can we begin to address such deeply-rooted and disturbing realities while clinging to the promise of digital and networked tools to enhance learning?

At the #OER17 conference in London, Kate Green, Markus Deimann and Christian Friedrich co-facilitated the Workshop ["Towards Openness: Safety in Open Online Learning?"](#) [https://edtechbooks.org/-Lw] The core activity of this workshop was to invite participants to construct "interventions", such as a "prototype, class, tool, process or even a recommendation" that would confront the darker realities that we face. ([Jim and I were part of a group [https://edtechbooks.org/-fsY]](#) that participated.)

In other words, the facilitators challenged us to think of some action to uncover, to challenge or to address the dark complexities of open online learning today. To come up with something that we ourselves

might be able to accomplish. That strikes me as a very fruitful thing to do. Which leads me to ask… What are some examples of contemporary practice in learning technology that constitute such interventions? Before wrapping up, I'd like to point at some work that makes me feel more hopeful.

In the course of her work exploring ["critical digital pedagogy in troubled political times" \[https://edtechbooks.org/-GwA\]](https://edtechbooks.org/-GwA), Amy Collier has presented the challenge to educators to construct and protect ["digital sanctuary" \[https://edtechbooks.org/-wHM\]](https://edtechbooks.org/-wHM) in their practice. Collier states that a "digital sanctuary initiative questions the role our technological systems play in students' safety and looks for ways to minimize risks to students associated with those technological encounters." She offers a number of practical guidelines for the handling of student data, such as to "closely examine and rethink student tracking protocols", and asks "could we build an inventory of all of the digital tools that collect data and then surface that information to students as part of curriculum?"

Collier also suggests "using data literacy as a teaching opportunity", which brings to mind a significant set of recent interventions from Michael Caulfield. In response to the wave of attention paid to "fake news", Caulfield has been regularly posting responses to the present unreality that are grounded in learning technology. Some of these are abstract (his frequent and longstanding criticisms of ["the stream" \[https://edtechbooks.org/-to\]](https://edtechbooks.org/-to) as an inadequate frame for constructing knowledge), others are practical and easy to adopt (such as exercises promoting the [use of reverse image search \[https://edtechbooks.org/-rCN\]](https://edtechbooks.org/-rCN) to determine the provenance of online memes). He has collected them into an open textbook *[Web Literacy for Student Fact Checkers \[https://edtechbooks.org/-vE\]](https://edtechbooks.org/-vE)*, and if we were looking for immediate, concrete steps to move the needle it seems like these techniques and principles could be applied across all disciplines.  As [Caulfield argues \[https://edtechbooks.org/-Fi\]](https://edtechbooks.org/-Fi), "the web is both the largest propaganda machine ever created and the

most amazing fact-checking tool ever invented. But if we haven't taught our students those capabilities is it any surprise that propaganda is winning?"

We need to do so much more, but I could point to a couple of interventions at my home institution, Thompson Rivers University. During a research fellowship at TRU, Alan Levine built a number of tools [http://cogdogblog.com/?s=splot] that were dedicated to the notion of making it easier to share materials and learning on the open web while also not requiring any personal data from the contributors (such as user accounts). These tools can be used for simple writing spaces [https://edtechbooks.org/-VyM], or collecting images [https://edtechbooks.org/-jHK] or sounds [https://edtechbooks.org/-xGC]. The concept is captured by the as-yet undefined yet undeniably brilliant acronym of SPLOT [http://splot.ca/] (which stands for something like Simplest Possible Learning Online Tool… or something). Whether or not one wishes to adopt the specific SPLOT tools, one wonders what might result if more of us worked to build pieces that were tightly focused on simple experiences, and that resisted the trend to build learning on the accretions of personal data.

TRU Professor of Law Katie Sykes has used SPLOTs in some of her courses [http://l21c.trubox.ca/], but her most impactful learning technology activity was built on top of a vendor platform. In her course "Designing Legal Expert Systems: Apps for Access to Justice" [https://edtechbooks.org/-KtT], Sykes had her students build real, functioning apps for non-profit organizations, such as RISE Women's Legal Centre [https://womenslegalcentre.ca/], Animal Justice Canada [http://www.animaljustice.ca/] and the BC SPCA [https://edtechbooks.org/-cp]. Students in this course get valuable and demonstrable experience and skills training, and far from going through the motions of "disposable assignments" instead engage in needed work. As Sykes notes, the mission is "to facilitate broader access to justice for all."

I can't resist quoting Mike Caulfield's take on Katie Sykes's work, from [a recent keynote that he gave [https://edtechbooks.org/-ckR]](https://edtechbooks.org/-ckR):

> Students walk away from this class having actually made a tangible difference in the world. This is a class that quite literally — literally! — saves puppies. Puppies! And the benefits go beyond that. Students are working with non-profit partners on this stuff and making connections that will help them get into that 60% of students that find a job as a lawyer. They are learning what law looks like in the real world, and how lawyers might collaborate with others. They are learning how to break down tricky law problems, while their colleagues are studying textbooks. And I can't say this enough. They are literally saving puppies. How can you argue with that?

In my two decades working in this field, some things seem destined to repeat themselves over and over. Some things feel like they have not changed at all. But surveying the current landscape, it's hard not to feel we are at a very dangerous inflection point. It is all too easy to give in to despair. I'm grateful to Green, Deimann and Friedrich's workshop for planting the idea of interventions for more ethical open online learning. I'm looking for more to do.

## Suggested Citation

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# Waiting for O Superman

## Rolin Moe

### Editor's Note

This was originally posted to Rolin Moe's blog [https://edtechbooks.org/-Iza] on January 7, 2019.

[https://edtechbooks.org/-oh]

The Choose Your Own Adventure books [https://edtechbooks.org/-dojN], brilliant Generation X artifacts, worked not because within their covers was the Great American Novel, but because the opportunity to read multiple threads on a particular plot was engaging. I was lucky to get to read dozens of these titles as a kid; my grandmother worked in a bookstore in Palm Springs in the 1980s and when I would visit I would sit in the break room with the newest titles, working through every possible pathway to see what was possible. The plots alone were not exciting, but it

became immersive when augmented with new pathways, doorways to nowhere, and doubling back to try again, and seeing if there was anything I had missed.

That bookstore is worth talking about.  Bookland had [prime Palm Springs real estate, basically on the corner of Palm Canyon and Tahquitz [https://edtechbooks.org/-ybZj]](https://edtechbooks.org/-ybZj) (now Tahquitz Canyon). During the middle of the 20th Century it was where vacationing celebrities would buy their relaxation reads, where the locals would get their magazines, and where Truman Capote would buy his daily newspaper.  It served its community and watched the rise of Palm Springs from barren desert to modernist dreamscape.  By the time I was thumbing through its CYOA case in the 1980s, the city was on a downward slope, and Bookland had big box competitors in the form of Super Crown and Brentano's.  By the time a Barnes & Noble opened in Palm Desert at the turn of the century (primed to win the race of the big box stores), Bookland was a forgotten memory, long replaced by a T-shirt store. Choose Your Own Adventure books were by this time also an artifact of the past, considered by many to be a fad.

> …it takes a lot of effort to develop a comprehensive story, and if every choice led to completely new events and outcomes the work required to produce such a volume would be prohibitive.

Today, Palm Springs has experienced a resurgence as a getaway destination, and the idea of Choose Your Own Adventure has new life thanks to [*Black Mirror: Bandersnatch [https://edtechbooks.org/-DAK]*](https://edtechbooks.org/-DAK), the newest Black Mirror — draped in nostalgic retro fashion as well as what many believe is a pilot run for more interactive television (and the data mining that comes with using platforms in our day and age). The *Bandersnatch* story is enjoyable…follow the game designer through the struggles of bringing a game to market and how that experience branches out to address themes like free will. There isn't

really free will though, as most of the choices push you back to the predominant plot line. And that makes perfect practical sense; it takes a lot of effort to develop a comprehensive story, and if every choice led to completely new events and outcomes the work required to produce such a volume would be prohibitive. CYOA books that consisted of <150 large font pages (and scattered images) would push people back to a handful of main plot lines, and they only required an author or small author team working entirely in text and drawing. I want *Bandersnatch* to take me to entirely different places based on my wholly unique choices rather than throwing me a cutesy Easter egg if I stumble somewhere the right way, but to produce and manage that much footage would currently be nearly if not completely impossible.

When *Bandersnatch* went live, I tracked my progress through the story the first time (including the times Netflix pushed me to go back and try things again), then immediately went back to the beginning and took entirely new pathways.  It was not a disappointment to find out that some of the choices did not matter to the outcome; that was no different from the books of my childhood.  It was only a disappointment that there were not more opportunities to follow the story in the same way I was disappointed when every page of one of my dog-eared CYOA books had been discovered and followed.

Part of the reason Choose Your Own Adventure worked was because it was its own enclosed story controlled by an authorial voice focused on the cohesion of plot and path, but it also worked because of that promise of the unknown, of forging pathways and getting to go back again and try again. One of the criticisms against *Bandersnatch* is that it is a gimmick, and if you were to just tell the story there would be nothing to drive the action or audience interest. Does *Black Mirror: Bandersnatch* hinge on a gimmick?  Sure. So does *Memento*, [Christopher Nolan's early 21st Century film about a guy without a functioning short-term memory [https://edtechbooks.org/-Rdw]](https://edtechbooks.org/-Rdw) whose story is told from end to beginning.  Neither experience is about the

story as much as it is about engaging something traditional from a unique perspective, combining the authorial road map with the individual's sense of adventure. *Bandersnatch* is a streaming media version of the book structure, like a video game but on a television service, somewhat clunky but better than what has been tried before.

The capabilities of the technology have not hindered the societal expectations of viewers and pundits. The Black Mirror audience, waiting for new content since the Season 4 launch in late December of 2017, lit social media ablaze before any announcements or advertising (?) a new title, [having found a deleted tweet in November 2018 referencing a Black Mirror launch [https://edtechbooks.org/-ppm]](https://edtechbooks.org/-ppm) on December 28. From that point, speculation ran rampant and any potential information on new Black Mirror was analyzed, dissected, deconstructed, reconstructed, and published for others to analyze, dissect and deconstruct.  It was not until December 19 that Netflix started their advertising campaign, adding to an already overwhelming tempest of hype.

There's an elephant in this room: since the *Bandersnatch* launch, much of the 'future of television' stories are about the ability for Netflix to mine the data of viewers and their choices, using that information to tailor on-demand content mid-show. Many have noted the irony of tech dystopian *Black Mirror* as the trial balloon for data mining television streaming. After a month of breathless anticipation and a day of textual analysis, the conversation is about the tech and Netflix platform, which many have argued is what brought the episode down from what it could be. A good but not great Black Mirror episode is now the conduit for invasive technology.

> When [tech] fails to meet expectations, there are
> *always* mitigating circumstances to blame, and the
> media landscape moves onto the next hype machine to
> float before it crashes down.

This is where I can't get *Like Netflix, but for Education* [https://edtechbooks.org/-pEP] out of my head, the trope of EdTech marketing/hype/fluff that accompanies the newest innovation in the world of higher education. MOOCs or blockchain or the Internet of Things or iPads in schools or personalized learning get breathless coverage upon launch but never meets the expectations. Most of this EdTech is built on existing research but presented as a novelty or a serendipitous happening. When it fails to meet expectations, there are always mitigating circumstances to blame, and the media landscape moves onto the next hype machine to float before it crashes down.

We can't separate Charlie Booker and the *Black Mirror* show from Netflix and the technology platform funding his work and running the adaptive viewing software. But I don't want a month of show hype to lead to a day of show analysis and then months of tech hype counterbalanced by tech criticism.  We were excited for *Bandersnatch* because we were excited for another story from the lens of *Black Mirror*, in the same way I was excited every time I visited Bookland to see what new Choose Your Own Adventure titles had been released. In education, we are excited to lead people into experiencing things and ideas they don't yet know they love.  How can we bring our focus back to building remarkable opportunities for learning instead of being caught up in the endless hype cycles?

Jean Lyotard wrote in *The Postmodern Condition* [https://edtechbooks.org/-Vex] that the technological revolution would largely render formal education redundant because the whole of the world's knowledge would be accessible by anyone who could access a computer terminal (he noted that teachers would not be lost in this new paradigm because someone would need to teach people how to use computer terminals). This did not happen, partly because instruction is vital to a learning environment and partly because knowledge is not so cut and dry that it could end up sterilized in a platform. But the hype still pushes us in that direction. The most frequently chosen pathway today argues that the world's knowledge

can be accessed by computer and therefore formal education is redundant, but the computer does not function as anticipated and the removal of facilitation and development for learners makes the Internet experience one of consumption briefly highlighted by decontextualized curiosities. A pathway forward for technology, media and education needs to embrace that we cannot do it all, but we can use our history to do teaching and learning in a way to not only introduce but inspire and engage.

## Suggested Citation

*Moe, R. (2019). Waiting for O Superman. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/superman*

# A Field Guide to "Jobs that Don't Exist Yet"

## Benjamin Doxtdator

**Editor's Note**

This was originally posted to [Benjamin Doxtdator's blog](#) on July 8, 2017.

## The statistic you either love or hate

Thanks to the [*Shift Happens*](#) videos (2007), you will likely be familiar with this statistic about the future of work:

> "The top 10 in demand jobs in 2010 did not exist in 2004. We are currently preparing students for jobs that don't exist yet, using technologies that haven't been invented, in order to solve problems we don't even know are problems yet."

People repeat the claim again and again, but in slightly different forms. Sometimes they remove the dates and change the numbers; 65% is now in fashion. Respected academics who study education, such as [Linda Darling-Hammond](#) (1:30), have picked up and continue to repeat a mutated form of the factoid, as has the [World Economic Forum](#) and the [OECD](#). It takes some work to find out that the claim is

not true. When I tried to find an original source for the claim, I was surprised to find out that versions of it date from at least to 1957. Interestingly, in 1973 Norman Kurland said such statements 'typified' the 1970s discourse about how jobs are supposed to change, but the claim now appears new and radical in 21st century videos like Shift Happens. I'll get to that deeper history soon.

The *Shift Happens* video, originally made by Karl Fisch as a presentation and turned into a [viral video](#) by Scott Mcleod, situates the claim in Thomas Friedman's 'flat' world perspective that concerns itself with America retaining a 'comparative advantage' in rapidly changing times. Right between statistics about the rise of China and India and the historical decline of the British Empire, the video drops the claim about 'in demand jobs' and attributes it to Richard Riley, Bill Clinton's Secretary of Education. Even though it lacks his linguistic 'secret sauce', I had bet that Thomas Friedman might have been an original source for the claim because it fits so well with his neoliberal perspective. In the notes to the video, Fisch gives [Ian Jukes](#) as a [source](#), and in an email conversation with Jukes, he was kind enough to confirm: "I was in attendance at an event (the SC Summit) in Columbia, South Carolina on or about [Aug 7, 2006](#) – Riley was the opening keynote – that quote is word for word (or as close as I was able to record) to what he had to say." Incidentally, [Bill Clinton](#) – certainly a flattener in Friedman's eyes – made such a claim a decade earlier in 1996 in Birmingham:

> "This is the last election for President of the 20th century and the first election for President of the 21st century. And you have to decide. Many of you young people in this audience, in a few years you will be doing jobs that haven't been invented yet. Some of you will be doing work that has not even been imagined yet. And you have to decide: what kind of America do you want."

[The brush Bill Clinton painted 'free-trade' with](#) is still being used to color in an awful lot of education books in 2017:

> "Change is upon us. We can do nothing about that."

Is the claim stated as a statistic true? [Andrew Old](#) and more recently [Michael Berman](#) and the [BBC](#) have provided a solid de-bunking.

But why does the claim continue to circulate? What ideology does it serve?

# Future Proof?

The OECD uses a version of the claim to frame their *[Case for 21st Century Learning](#)*, as does the World Economic Forum in their *[Future of Jobs](#)* (2016) report. More recent versions of the claim have removed specific dates, and switched from talking about the top 'in demand jobs' to talking about a percentage – 65% is the magic number – of children who will work in jobs that haven't been invented yet.

Yet, the claim serves the same function as it did in the *Shift Happens* videos: to suggest that education has failed to keep pace with, and prepare our children for, an ever changing world of work. In the face of this known unknown, the only answer is to instill flexibility and adaptability along with 'skills' like creativity. [Keri Facer](#) gives us a helpful term for this narrative: the 'future proofing' narrative "suggests that there is only one question about socio-technical change that the 'future-proof' school needs to address: namely, how successfully will the school equip young people to compete in the global economy of tomorrow?"

This logic is so pervasive that we barely notice it. Even reformers that

appear progressive, such as Ken Robinson, ultimately link progressive values like creativity to work. A century ago, the logic of future proofing went under the name 'social efficiency', but that branch of the progressive movement found vigorous opposition in [John Dewey](#) who said that as a matter of politics, the "education in which I am interested is not one which will 'adapt' workers to the existing industrial regime; I am not sufficiently in love with the regime for that."

Now, social efficiency in the language of 'future proofing' is embedded in the neoliberal ideology that equates freedom with free markets, and makes the individual solely responsible for her own fate. As much as the claim is an indictment of schools, it also serves as a warning to individuals. Be a 'lifelong learner' or else. When [Andreas Schleicher](#) of the OECD repeats the claim (with no source), he makes clear that only our imaginations and not material circumstances might hold us back in life: "As columnist and author Thomas Friedman puts it, because technology has enabled us to act on our imaginations in ways that we could never before, the most important competition is no longer between countries or companies but between ourselves and our imagination."

The WeF [*Future of Jobs*](#) report exemplifies the future proofing ideology and Thomas Friedman's methodology by making an "extensive survey of CHROs and other senior talent and strategy executives of leading global employers" (p. 3) to learn about the future of work, which then drives their future of education policy:

> "By one popular estimate 65% of children entering primary schools today will ultimately work in new job types and functions that currently don't yet exist. Technological trends such as the Fourth Industrial Revolution will create many new cross-functional roles for which employees will need both technical and social

and analytical skills. Most existing education systems at all levels provide highly siloed training and continue a number of 20th century practices that are hindering progress on today's talent and labour market issues. … Businesses should work closely with governments, education providers and others to imagine what a true 21st century curriculum might look like."

In this narrative, the education system hinders progress, thus steering the conversation away from explicit economic policies, which are often driven by corporations and Capital. The *Future of Jobs* cites the *Shift Happens* videos as their source, but switches the statistic (or confuses the prediction) from 'top 10 in demand jobs' to the figure of '65% of children' while dropping the date which has expired by seven years now. That post-modern pastiche, and repetition without referent, becomes exhausting.

Perhaps most importantly, the *Future of Jobs* relies on the perspective of CEOs to suggest that Capital has lacked input into the shape and direction of education. Ironically, the first person I found to make the claim about the future of jobs – Devereux C. Josephs – was both Businessman of the Year (1958) and the chair of Eisenhower's President's Committee on Education Beyond High School. More tellingly, in his historical context, Josephs was able to imagine a more equitable future where we shared in prosperity rather than competed against the world's underprivileged on a 'flat' field.

# The Political Shift that Happened

While the claim is often presented as a new and alarming fact or prediction about the future, [Devereux C. Josephs](#) said much the same in 1957 during a Conference on the American High School at the University of Chicago on October 28, less than a month after the Soviets launched Sputnik. If Friedman and his 'flat' earth followers

were writing then, they would have been up in arms about the technological superiority of the Soviets, just like they now raise the alarm about the rise of India and China. Josephs was a past president of the Carnegie Corporation, and at the time served as Chairman of the Board of the New York Life Insurance Company.

While critics of the American education system erupted after the launch of Sputnik with calls to go back to basics, much as they would again decades later with *A Nation at Risk* (1983), Josephs was instead a "besieged defender" of education according to Okhee Lee and Michael Salwen. Here's how Joseph's talked about the future of work:

> "We are too much inclined to think of careers and opportunities as if the oncoming generations were growing up to fill the jobs that are now held by their seniors. This is not true. Our young people will fill many jobs that do not now exist. They will invent products that will need new skills. Old-fashioned mercantilism and the nineteenth-century theory in which one man's gain was another man's loss, are being replaced by a dynamism in which the new ideas of a lot of people become the gains for many, many more."[4] Devereux C Josephs, The Emerging American Scene, The School Review, Vol. 66, No. 1 (Spring, 1958)

Josephs' claim brims with optimism about a new future, striking a tone which contrasts sharply with the *Shift Happens* video and its competitive fear of The Other and decline of Empire. We must recognize this shift that happens between then and now as an erasure of politics – a deletion of the opportunity to make a choice about how the abundant wealth created by automation – and perhaps more often by offshoring to cheap labor – would be shared.

The agentless construction in the *Shift Happens* version –

"technologies that haven't been invented yet" – contrasts with Josephs' vision where today's youth invent those technologies. More importantly, Josephs imagines a more equitable socio-technical future, marked not by competition, but where gains are shared. It should go without saying that this has not come to pass. As productivity shot up since the 1950's, worker compensation has stagnated since around 1973.

**Growth of real hourly compensation for production/nonsupervisory workers and productivity, 1948–2011**
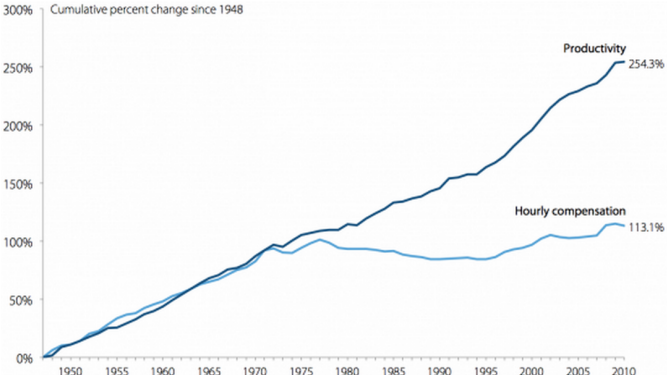


**Note:** Hourly compensation is of production/nonsupervisory workers in the private sector and productivity is for the total economy.

**Source:** Author's analysis of unpublished total economy data from Bureau of Labor Statistics, Labor Productivity and Costs program and Bureau of Economic Analysis, National Income and Product Accounts public data series

**Economic Policy Institute**

Source: epi.org

In other words, the problem is not that Capital lacks a say in education, but that corporations and the 0.1% are reaping all the rewards and need to explain why. Too often, this explanation comes in the form of the zombie idea of a 'skills gap', which persists though it keeps being debunked. What else are CEOs going to say – and the

skills gap is almost always based on an opinion survey – when they are asked to explain stagnating wages?

Josephs' essay echoes [John Maynard Keynes'](#) (1930) in his hope that the "average family" by 1977 "may take some of the [economic] gain in the form of leisure"; the dynamism of new ideas *should have* created gains for 'many, many more' people. Instead, the compensation for CEOs soared as the profit was privatized even though most of the risk for innovation was socialized by US government investment through programs such as DARPA.



**Growth of hourly productivity, real average hourly compensation, and real median hourly compensation (overall and by gender), 1973–2011**
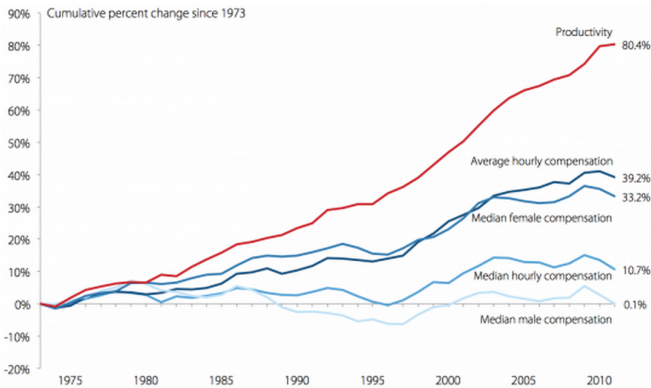
**Note:** Compensation is for production/nonsupervisory workers in the private sector, and productivity is for the total economy.

**Source:** Author's analysis of unpublished total economy data from the Bureau of Labor Statistics, Labor Productivity and Costs program and Bureau of Economic Analysis, National Income and Product Accounts public data series

**Economic Policy Institute**

Source: [epi.org](#)

Those robots that are always threatening to take our jobs, like Baxter, are the product of government funding going back at least to 1990

when Rodney Brooks, creator of the Roomba, founded iRobot whose [first project](#) was to "build a six-legged insectlike robot named Attila for NASA's Jet Propulsion Laboratory." The article explains that "early revenue [for iRobot] came from research contracts with government agencies like the Defense Advanced Research Projects Agency, or DARPA, at the Pentagon." Now, Brooks has started a new company, Rethink Robotics, backed by venture capitalists. According to an [interview](#) with Brooks, "Baxter was developed at a VC backed company, Rethink Robotics. So there is no funding to receive from governments or funding agencies. In the past the pre-research for the technologies that went into Baxter have been funded by the US government, via NASA and DARPA."



Josephs and Keynes predicted shared prosperity from the rise of automation. They did not foresee such a massive welfare program designed to help corporations.

We must not confuse the hope that Josephs and Keynes shared with Thomas Friedman's [facile claim](#) that "America, as a whole, will do fine in a flat world with free trade" because "there is no limit to the number of idea-generating jobs in the world." So-called 'knowledge work' depends on [sacrificial people toiling in sacrificial places](#), doing the dangerous and dirty work we still rely on. Writing in 2003, [Doug](#)

Henwood asks:"We've been hearing about post-industrial society for at least thirty years; if it had come about, would we have to worry about global warming?"

Yet, because 'thought leaders' follow Friedman, they conclude that schools must work to provide the kind of skills that will allow individuals to create their own knowledge work. In *The Sociological Imagination* (1959), C. Wright Mills already observed a shift taking place where public issues were being blamed on personal troubles that "occur within the character of the individual". So we should not be surprised when Thomas Friedman interviews Tony Wagner – an education 'thought leader', friend of Friedman, and advocate of the skills agenda – and suggests that people who need jobs should invent them. Wagner tells Friedman that "Young people who are intrinsically motivated — curious, persistent, and willing to take risks — will learn new knowledge and skills continuously. They will be able to find new opportunities or create their own — a disposition that will be increasingly important as many traditional careers disappear." In contrast, Josephs was still able to believe in a collective responsibility, writing that "the price tag on this [coming economic] abundance is the responsibility of society for the welfare of the individuals who are, from time to time, dislocated."[7] *Emerging Scene*, p. 25

Instead of factoids without substance, we actually have good statistical projections about the future of jobs, and it's bleak. A look into the future of paid work shows persistent gaps and cracks rather than a 'flat' world. The Bureau of Labor Statistics' projections for numeric job growth from 2014-2024 indicate that four out of the top five growing jobs pay salaries that are less than $21,400 per annum. With the exception of Registered Nurses (#2), who on average earn $66,640 and require a Bachelor Degree, the other top five growing jobs require no formal credentials.[8] I borrow this paragraph from my essay here.

# Beyond Press Releases

[Audrey Watters](#) has written about how futurists and gurus have figured out that "The best way to invent the future is to issue a press release." Proponents of the 'skills agenda' like the OECD have essentially figured out how to make "the political more pedagogical", to borrow a phrase from [Henry Giroux.](#) In their [book](#), *Most Likely to Succeed*, Tony Wagner and billionaire Ted Dintersmith warn us that "if you can't invent (and reinvent) your own job and distinctive competencies, you risk chronic underemployment." Their [movie](#), of the same title, repeats the hollow claim about 'jobs that haven't been invented yet'. Ironically, though Wagner tells us that "knowledge today is a free commodity", you can only see the film in private screenings.

I don't want to idealize Josephs, but revisiting his context helps us understand something about the debate about education and the future, not because he was a radical in his times, but because our times are radical.

In an interview at [CUNY](#) (2015), Gillian Tett asks Jeffrey Sachs and Paul Krugman what policy initiatives they would propose to deal with globalization, technology, and inequality.[9]This part of their conversation starts at about 32:00 After Sachs and Krugman propose regulating finance, expanding aid to disadvantaged children, creating a robust  social safety net, reforming the tax system to eliminate privilege for the 0.1%, redistributing profits, raising wages, and strengthening the position of labor, Tett recounts a story:

"Back in January I actually moderated quite a similar event in Davos with a group of CEOs and general luminaries very much not just the 1% but probably the 0.1% and I asked them the same question. And

what they came back with was education, education, and a bit of digital inclusion."

Krugman, slightly lost for words, replies: "Arguing that education is the thing is … Gosh… That's so 1990s… even then it wasn't really true."

For CEOs and futurists who say that disruption is the answer to practically everything, arguing that the answer lies in education and skills is actually the least disruptive response to the problems we face. Krugman argues that education emerges as the popular answer because "It's not intrusive. It doesn't require that we have higher taxes. It doesn't require that CEOs have to deal with unions again." Sachs adds, "Obviously, it's the easy answer for that group [the 0.1%]."

The kind of complex thinking we deserve about education won't come in factoids or bullet-point lists of skills of the future. In fact, that kind of complex thinking is already out there, waiting.

## Suggested Citation

*Doxtdator, B. (2019). A Field Guide to "Jobs that Don't Exist Yet". In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/jobs_that_dont_exist*

# A Definition of Emerging Technologies for Education

## George Veletsianos

### Editor's Note

This was originally posted to [George Veletsianos's blog [https://edtechbooks.org/-FYC]](https://edtechbooks.org/-FYC) on November 18, 2008.

Surprisingly enough, the education, e-learning, educational technology, instructional design, and so on literatures do not include a definition of emerging technologies for education. Below is my attempt at defining the term. This definition will be part of a book chapter to be published in 2009. The complete chapter will be posted here by the end of January 2009. Enjoy, and if you have any comments, or if you happen to stumble upon a definition of emerging technologies, please feel free to comment!

Emerging Technologies are tools, innovations, and advancements utilized in diverse educational settings (including distance, face-to-face, and hybrid forms of education) to serve varied education-related purposes (e.g., instructional, social, and organizational goals). Emerging Technologies (ET) can be defined and understood in the context of the following five characteristics:

# 1. ET can be, but are not necessarily, new technologies

It is important to note that in this context the words emerging and new are usually treated as synonymous, but they may not necessarily be so. While a definition of new might be perilous and contentious, ET may represent newer developments (e.g., utilizing the motion sensing capabilities of the Wii Remote to practice surgical techniques) as well as older ones (e.g., employing open source learning management systems at higher education institutions). Even though it may be true that most emerging technologies are newer technologies, the mere fact that they are new, does not necessarily categorize them as emerging. This idea of new technologies being emerging technologies also begs the following two questions: When do technologies cease to be new? When technologies cease to be new, do they also cease to be emerging? For example, synthetic (or virtual) worlds were described as an emerging technology more than ten years ago (Dede, 1996). Today, virtual worlds are still described as emerging technologies (e.g. de Freitas, 2008). Newness, by itself, is a problematic indicator of what emerging technologies, as older technologies can also be emerging– the reasons for this will become clearer after we examine the characteristics that follow.

# 2. ET are evolving organisms that exist in a state of "coming into being"

The word evolving describes a dynamic state of change and continuous refinement and development. Twitter, the popular social networking and micro-blogging platform, represents an illustrative example of an ET that is "coming into being." Twitter's early success and popularity would often cause frequent outages. Such issues were most noticeable during popular technology events (e.g., during the MacWorld keynote address). After a while, Twitter's outage issues

were both lambasted and anticipated by the industry. When a new company moved into Twitter's old offices, an image was posted on the office door (Figure 1) as a tongue-in-cheek statement regarding Twitter's downtime and office relocation. Early attempts to satisfy sudden surges in demand included using more servers and implementing on/off switches to various Twitter features (e.g., during the 2008 WorldWide Developers Conference), while later efforts included  Re-designing the application's architecture and withdrawing services (e.g., free SMS and instant messaging support). Existing in a state of evolution, Twitter continuously develops and refines its service, while maintaining its core purpose, and still being an emerging rather than an established technology.

# 3. ET go through hype cycles

Today's emerging technology might be tomorrow's fad, and today's simple idea might be tomorrow's key to boosting productivity. While it is easy to fall into the trap of believing that today's innovations will completely restructure and revolutionize the way we learn and teach, it is important to remain critical to hype. Even though technology has had a major impact on how distance education is delivered, managed, negotiated, and practiced, it is also important to recognize that due to organizational, cultural, and historical factors, education, as a field of study and practice, is resistant to change (c.f. Cuban, 1993; Lortie, 1975). Technologies and ideas go through cycles of euphoria, adoption, activity and use, maturity, impact, enthusiasm, and even infatuation. In the end, some of today's emerging technologies (and ideas) will become stable (and staple), while others will fade in the background.

One way to describe the hype that surrounds emerging technologies and ideas for education is to observe the Hype Cycle model (Fenn & Raskino, 2008) developed by Gartner Inc. This model evaluates the relative maturity and impact of technologies and ideas and follows five

stages that have been successfully applied to diverse topics (table 1). Most specific to the topic of this book are the hype cycle models developed for Higher Education (Gartner, 2008a) e-learning (Gartner, 2006), and emerging technologies (Gartner, 2008b).

# 4.    ET satisfy the "not yet" criteria

The "not yet" criteria refer to two interrelated issues:

a. *ET are not yet fully understood*. One factor distinguishing ET from other forms of technology is the fact that we are not yet able to understand what such technologies are, what they offer for education, and what they mean for learners, instructors, and institutions. For example, what exactly is mobile learning? How does it differ from other forms of learning? What does it mean to have access to data regardless of geographic location? What are the social and pedagogical affordances of mobile learning in relation to alternative forms of learning? As a result of ET not being fully understood, a second issue arises:
b. *ET are not yet fully researched or researched in a mature way.* Initial investigations of ET are often evangelical and describe superficial issues of the technology (e.g., benefits and drawbacks) without focusing on underdtanding the affordances of the technology and how those affordances can provide different (and hopefully better) ways to learn and teach at a distance. Additionally, due to the evolutionary nature of these technologies, the research that characterizes it falls under the case study and formative evaluation approaches (Dede, 1996), which, by itself, is not necessarily a negative facet of research, but it does pinpoint to our initial attempts to understand the technology and its possibilities. Nevertheless, because ET are not yet fully researched, initial deployments of emerging technology applications merely replicate familiar processes, leading critics to argue that technologies are new iterations of the media debate

(e.g., Choi and Clark, 2006; c.f. Clark, 1994; Kozma, 1994; Tracey & Hasting, 2005). Unfortunately, to a large extend, they are right – newer technologies are often used in old ways: Linear PowerPoint slides replace slideshow projectors; blogs – despite the opportunities they offer for collaboration – replace personal reflection diaries; and pedagogical agent lectures replace non-agent lectures (e.g., Choi and Clark, 2006).

# 5. ET are potentially disruptive but their potential is mostly unfulfilled

Individuals and corporations recognize that a potential exists, but such potential hasn't yet been realized. The potential to transform practices, processes, and institutions, is both welcomed and opposed. For example, open access journals have the potential to transform the ways research and knowledge are disseminated and evaluated. While this advancement has the potential to disrupt scholarship, to date, the majority of research is still published at closed access journals and periodicals.

As I have said before, i developed the above "definition/description" because i couldn't find one in the literature. If you have one that for one reason or another i couldn't find, please feel free to add the citation/reference to the comments or send me an email. If you have any critiques, i also wouldn't mind hearing those either :)

## Suggested Citation

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# Innovation in Higher Education ... and Other Blasts from the Past

Tannis Morgan

**Editor's Note**

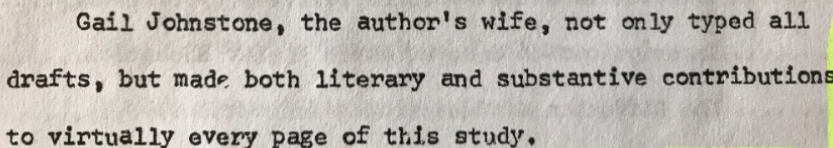This was originally posted to [Tannis Morgan's blog](#) on May 24, 2017.

I had the pleasure to be a keynote at [CNIE 2017 in Banff](#) last week, 14 years after first attending the very first iteration of this conference in the exact same location. This year's theme was *Exploring our past, present and future*, which could not have been a more perfect theme to talk about a topic I've become quite interested in over the past year.  Last year I began looking into the past of concepts like *[open pedagogy/pédagogie ouverte](#)*  and delving into this past has really helped me gain some perspective on how we are currently talking about *open*.  Preparing for the CNIE keynote gave me a great opportunity to delve  more deeply into the past of other concepts such as innovation, ed tech, and open in particular.

The point of this presentation was to take a journey to the past, the 1960s and 70s for the most part, and talk about current day open, ed tech, and  innovation in relation to the past.

We started with the *Then or Now* game. I put up 4 slides of different quotes from 1960-present and you had to guess whether the quote was from the past or present.  As expected, this wasn't an easy one to guess, the point being that a lot of the past rhetoric on open, ed tech, or innovation sounds very familiar to those of us who've been in the field for a while.  You can see the quotes in the slide deck, but the references for those slides follow:

1.  The Erosion of Innovation in Higher Education, 1970. ( A dissertation written by the future president of Buffalo State College, or was it really written by Gail, his wife?).



> Gail Johnstone, the author's wife, not only typed all
>
> drafts, but made both literary and substantive contributions
>
> to virtually every page of this study.

*note: you need access to pro quest to access this one, full citation here:[JOHNSTONE, DONALD BRUCE](#). University of Minnesota, ProQuest Dissertations Publishing, 1969. 7001794.*

2. [The automated university: bots and drones amid the dreaming spires, 2017](#)

3. [Technology and Education: who controls?, 1970](#)

And my personal favourite:



"Institutions are like blobs of jello. They absorb attempts to change their shapes"

4. [Radical Innovation in a Conventional Framework: Problems and Prospects, 1977](#)

The point of the Then or Now game is that there are many recognizable tropes in those quotes, and what I learned in looking at 1960-1980 is that for every gushing Chronicle or Ed Surge article you can find a 1960s or 70s equivalent. Of course, there is both great

comfort and room for critique in that observation.

*"The crisis facing higher education in our nation has been mentioned so often that I fear we may tend to consider it an old story. It is not."*

In 1963, where this quote is from, it turns out there actually was a crisis in higher education in the 60s and 70s. What we learn from reading about this time period is that the drivers for the crisis, perceived or real, are not dissimilar to today.

For example, there is a pressure of numbers- in an [OECD report in 1968 *Change and innovation in higher education*](#) pointed to the pressure of numbers (changing demographics) as a result of growth in population and demand for greater equality – for example, I was surprised to learn that in UK between 1961 and 1968 24 new universities were created.

Also noted is the driver of scientific and tech progress: "new disciplines must be introduced; boundaries between the old ones become artificial; the rapid obsolescence of existing technologies has to be taken into account".  Those same drivers appear in this [Huffington post article from 2015.](#)

I then continue with more echoes from the past including:

1.  Disruption 1960s style: " there is a chorus of exhortations – articles beginning 'Higher Education should' or 'must'". From 1967 – [*Innovation: Processes, Practice and Research*](#) p.38.
2. No shortage of buzzwords and technology solutionism: "technological revolution" is a term "used with great abandon and little definition". From 1968 [*Educational Technology: New Myths and Old Realities*](#).
3. And no shortage of skepticism – the newest trend becomes embraced or critiqued:  "in spite of or because of its obscure meaning, individualized instruction is held up as a panacea for the ills of education"– 1968: [*Educational Technology: New*](#)

4. And of course, the obligatory tech as distraction reference: "Kids who are used to having blaring transistor radios around hem every waking moment have trained themselves to ignore anything coming into their ears, and therefore hear very little of what comes out the the earphones they we are in the language lab" : 1968: *Educational Technology: New Myths and Old Realities*



One of the greatest higher education innovations was the Open University. I find it curious that during the MOOC mania, there was little discussion about how open universities were a real solution to a demographic/accessibility/education massification problem, AND they actually provided students with real credits in a meaningful education "currency". The OU UK was established in 1968, and many other open universities followed. Here in Canada, as a result of the Quiet

Revolution, there was the establishment of a new higher ed system called CEGEPs in Quebec in 1968, resulting in 46 new 2-3 year colleges that were accessible and largely free.  The scale of higher ed expansion at this point in time is mind-boggling.  In a period of 10 years, 28 other open universities were established around the world.

In 1979 John Daniel writes somewhat retrospectively on this phenomenon in [Opening Open Universities](): "They are designed to serve working adults, usually without any academic prerequisites for entry, and they involve the delivery of instruction at a distance. Best known of these new institutions is the Open University of the UK, which has identified some 29 other universities around the world which implementthe open university concept in various ways. For most of these universities, adult off campus students constitute the sole or primary clientele".

Here in Canada, in 1972 a task force on the Télé-Université reported that the establishment of TELUQ should address these challenges.

- Lifelong learning
- Real accessibility for all.
- Social development.
- Needs of working population.
- Greater mobility of knowledge.
- Wide use of new media and techniques.
- Rethinking the learning situation.
- Taking account of people's prior life experiences.
- Reduction of unit costs

What is striking is how incredibly ambitious this list is.

In comparing our current day solutions to changing demographics, population, tech change, accessibility, to those of the 60s and 70s, where there drivers were very similar, it is notable that in the 60s and 70s the open universities had very ambitious agendas.  Today, it appears, we lean on MOOCs and OERs to address our higher ed

problems, and we are certainly asked to buy into a rhetoric of disruption.

What is interesting, however, is that in the 60s, disruption meant actual student protests and disruption on college and university campuses around the world.  Today, it means the creation of new tech products, that will somehow solve higher education problems.  This is the innovation conversation of today that many of us in the ed tech field are familiar with. As this graphic from 2015 shows, the sample of the 'ed tech players' are for the most part LMS or MOOC platforms.



Ed Tech Players Disrupting Education

And we are breathlessly reminded that this is a growth industry.

**JULY 17, 2015**

# Funding To VC-Backed Education Technology Startups Grows 503% over 5 Years

Keep in mind there has always been an education market. In 1966-67 it was estimated to be worth 48 billion dollars in the US, second only to defense. Today the ed market, however defined, is second only to heath care in the US.

The question is, how much of what we are doing is recreating the past. To this, we can look at Open Pedagogy as a possible example.

When I began looking into the origins of open pedagogy, I didn't find many references in the English literature, but found a body of work in the French literature that dates from the early 70s, associated with Claude Paquette, a professor at UQAM.

Open pedagogy in its current day form has been argued to be the pedagogy that results when open education resources (as defined by the 5R permissions) are used. Along with this definition are the 5Rs as articulated by David Wiley.

Retain – the right to make, own, and control copies of the **content**

Reuse – the right to use the **content** in a wide range of ways

Revise – the right to adapt, adjust, modify, or alter the **content** itself

Remix – the right to combine the original or revised **content** with other material to create something new

Redistribute – the right to share copies of the original **content**, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

As a result, this is a content focussed definition, and Wiley has since reframed his definition of open pedagogy as [OER enabled pedagogy](#).

What becomes interesting is when we contrast the current day open pedagogy, centred on the permissions surrounding content, with open pedagogy of the 1960s where learner emancipation, not the use of OERs, was the goal of open pedagogy. Claude Paquette outlines 3 sets of foundational values of open pedagogy, namely: autonomy and interdependence; freedom and responsibility; democracy and participation. For me, this is a much more ambitious definition of open pedagogy, focussed less on the how and more on the actual goal.

So what happened? We can perhaps look to the 80s for some clues, although I spend less time in this era of the literature and there is more work to be done here.

The first hint I found is from [Patricia Cross, speaking about community colleges in 1981](#): "the message seems to say that the old ideals of the 1960s that used to excite and inspire, albeit midst frequent controversy, are gone, and new ones have not yet emerged". She describes the emergence of a plateau "between 2 periods of high energy and a sense of mission in the community colleges" and notes that the early ideals have receded. In this article, she compares 'should be' goals at a 10 year interval and notes particularly the decline in the *should be* goal of accessibility, a significant decline in esprit de corps...mutual trust and respect among faculty students and administrators.

We also can see the emergence of corporate-speak applied to higher education as exemplified in this quote from 1982:"institutions of higher education lag behind most other sectors of the economy in their capacity to improve productivity".  This article, which was published in Journal of Higher Education – is entitled [The Impact of Organizational and Innovator Variables on Instructional innovation in Higher Education](#) .

There are some interesting examples from the graveyard of dreams that also demand us to pause and ask how we came so close to getting it right.

Consider, for example, the case of the Earth Sciences department at St. Lawrence University. In 1977 Bill Romey (same author of the blobs of jello quote) writes: "An opportunity arose to implement a new program in a conventional academic department of geology and geography at St. Lawrence University. Would it be possible to bring about extensive change from within a conventional department in an old-line, conventionally oriented liberal-arts school? "

The change Romey describes includes 10 or so characteristics of the new program that would have considerable appeal by current day standards.  These include:

- Independent project work at all levels, for all students and faculty, would replace all standard courses.
- Students would evaluate their own work.
- Students would keep portfolios of their own work as an alternative means of showing what they had accomplished. There would be no more examinations of conventional types.
- Students and faculty would participate fully and equally in the governance of the department.
- The department was to run as an open organism with free access for everyone in the university, whether or not they were formally enrolled for credit.

- Each person would function both as a teacher and as a learner.
- The faculty accepted responsibility, in cooperation with the students, to create and maintain a rich and stimulating learning environment for the benefit of all.

Romey describes the evolution over a few years, and notes that conventional thinking is starting to creep back in but for the most part the department is operating as described above.

If you go to the department page today you will see there appears to be no essence of this spirit left and the now [Geology department adopts a structure](#) not unlike many other universities.  In fact, the only hint of this former time can be found on [the academics page](#), where some amount of program customization is referenced, but this comes across more as academic strategy-speak than real.

It's important to underline that there were lots of these types of idealistic experiments happening on campuses across North America ([see the chapter on Recent Developments, p.10, for a good description of this](#)) –St. Lawrence not the only one and it would take some work for somebody to dig in and explore how they look today.  Also notable is that there were several threads of open across concepts such as individualized learning, open enrolment, and open classrooms, to name a few.

Fortunately, there are also some examples of things that have only gotten better with time – in [1970, MacManaway writes what can only be described as flipped learning 1970s style](#) – provide students with the lectures scripts for private reading and use the classroom time for small group discussion and assignments.

What the past and present version of ourselves shared was a common desire for teaching, learning, and student success. And this is where I think current day higher education can innovate with openness.  Of course, openness is often associated with Creative Commons licensing.  But increasingly I'm less interested in potential of CC

licensing and more in the question of *Open as a means to what*? I feel like our 60s and 70s counterparts were much more clear and explicit about this question.

In this section of the presentation I describe some examples where I think we can clearly answer the question, *Open as a means to what*? These include:

1. BCcampus as providing the higher education sector in BC as a means to collaborate.
2. The BC Open Ed Tech Collaborative
3. The beginnings of a WordPress Cooperative as a new model for doing things together
4. Some JIBC examples of open for the public good: eg. Fentanyl Safety , which was recently written up in the Atlantic
5. An international collaboration between JIBC and University of Guadalajara where early discussions and contract language included a CC BY NC license.
6. JIBC's work in developing an open textbook Zed Cred/Zee Degree in Law Enforcement Studies
7. Virtually Connecting

If I can note anything about this journey to the past, it's that the 60s and 70s literature is not dull reading...many of the articles linked above are written with incredible candour and passion, and there are plenty of LOL moments.

## Suggested Citation

*Morgan, T. (2019). Innovation in Higher Education ... and Other Blasts from the Past. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/blast_from_past*

# To Lecture Capture or Not to Lecture Capture?

## Thatâs Not Really the Question

Sheila MacNeill

**Editor's Note**

This was originally posted to [Sheila MacNeill's blog](https://edtechbooks.org/-EuM) [https://edtechbooks.org/-EuM] on September 20, 2018.

Photo by Yucel Moran [https://edtechbooks.org/-LSN] on Unsplash [https://edtechbooks.org/-qtL]

So you know how it is, you are trying to write an internal paper about something (in this case lecture capture) and as part of your research (aka distraction tactics) you put out a message on twitter just to see if anyone is there/ cares/ can actually help you- and then you get slightly taken overwhelmed with the response.

In response to to the this tweet

Sheila MacNeill
@sheilmcn

to lecture capture or not to lecture capture - what do you think?

♡ 8   06:37 - 19 Sep 2018

💬 34 people are talking about this

I got a fair few responses covering quite a range of opinions.  From the almost straightforward,



Sheila MacNeill @sheilmcn · 19 Sep 2018
to lecture capture or not to lecture capture - what do you think?

Simon Thomson
@digisim

Yes, but...............

♡ 2   08:36 - 19 Sep 2018

👤 See Simon Thomson's other Tweets

to the more slight more nuanced

Sheila MacNeill @sheilmcn · 19 Sep 2018
to lecture capture or not to lecture capture - what do you think?

Leo Havemann
@leohavemann

depends
♡ 1   07:22 - 19 Sep 2018

See Leo Havemann's other Tweets



Sheila MacNeill @sheilmcn · 19 Sep 2018
to lecture capture or not to lecture capture - what do you think?

SLRM
@StuartLRM

Ask yourself what would your students miss out on by watching the capture vs being in the room. If the answer is, "nothing" then lecture capture
♡ 1   06:57 - 19 Sep 2018

See SLRM's other Tweets

to the more creative

*EdTech in the Wild*                                                      83

**Sheila MacNeill** @sheilmcn · 19 Sep 2018
to lecture capture or not to lecture capture - what do you think?

**Dr. Louise Drumm**
@louisedrumm

Here's a thought: each lecturer asks students to draw up agreement about when they want it, why, and how they intend to use it. Then outsource actual recording and sharing of videos to students themselves, giving them access to data usage & review. Make it part of the curriculum.

♡ 3   08:06 - 19 Sep 2018

See Dr. Louise Drumm's other Tweets

to the more serious points



**Sheila MacNeill** @sheilmcn · 19 Sep 2018
to lecture capture or not to lecture capture - what do you think?

**Dr. Donna Lanclos**
@DonnaLanclos

I also think that if I were at an institution "capturing" my teaching I'd want damn sure for it to be in writing somewhere how long they kept those recordings for (until end of term no later) and what restrictions on use were.

♡ 3   10:52 - 19 Sep 2018

See Dr. Donna Lanclos's other Tweets

(For a very relevant and thought provoking exploration of that very

issue, I highly recommend watching Melissa Highton's [recent presentation [https://edtechbooks.org/-fFn]](https://edtechbooks.org/-fFn) at this year's ALT conference )
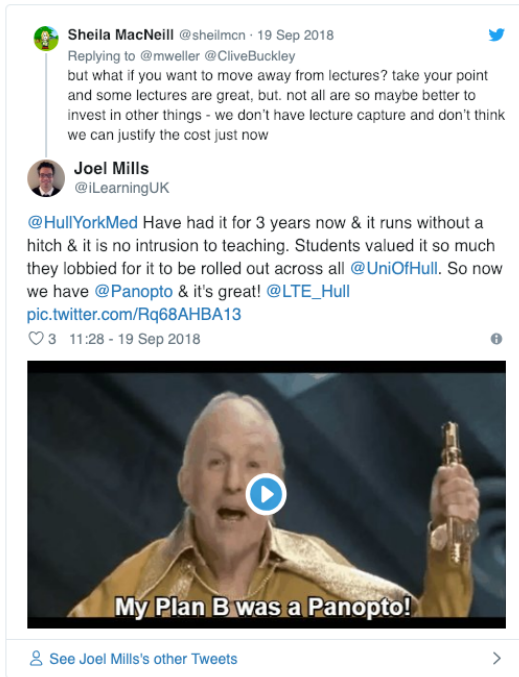
And the success stories



But this . . .

Sheila MacNeill @sheilmcn · 19 Sep 2018
to lecture capture or not to lecture capture - what do you think?

Dr. Donna Lanclos
@DonnaLanclos

Context Matters :)
♡ 3   08:55 - 19 Sep 2018

See Dr. Donna Lanclos's other Tweets

To quote from Tressie McMillian Cottom's keynote [https://edtechbooks.org/-cuJ] (again from the ALT conference) the devil is always in the context.

My context is this. My institution does not have a lecture capture system, but it seems everyone else does, so our senior management are asking about it. I have to prepare a discussion paper for our Senate. So whilst I see the benefits that lecture capture can bring – there are many –  I am also acutely aware of the costs (not just hardware/software) but the staff resources, and the wider CPD issues for both staff and students.  At at time when we are not awash with money for anything, I have to ask is it worth spending a substantial amount of money on lecture capture? Or should we not just do something because everyone else, but instead focus our resources and efforts around changing our expectations for both staff and students on the role of not lecture capture but learning capture – those key suggests/points of knowledge transfer that really make the difference to understanding. And in doing so, take another look at the tech we already have and see how we can extend its use.

As part of my research I came across this preprint [https://psyarxiv.com/ux29v] of a review of the impact of lecture capture. In terms the value students get from lecture capture it states:

*"the literature clearly indicates that for the majority of students the greatest value of recordings is as a learning resource. They use recordings to revisit and clarify complex confusing topics"*

Of course there are benefits for students with disabilities, non native speakers etc, in being able to access lecture recordings, but again do they need the whole lecture? There were more responses like this

> Fair point but I converted my 2 hr chemistry lectures into 20 min videos (converted narrated PPT) and uploaded to YouTube in about 30 mins each. Not BBC standard but probably better than LC
>
> — Clive Buckley (@CliveBuckley) [19 September 2018 \[https://edtechbooks.org/-fri\]](https://edtechbooks.org/-fri)

Which is more of what I think we need to be doing. In turn investing in cpd to help support staff develop relevant digital capabilities. There's then of course the need to provide time from staff to actually think about the wider issues around lecture/learning capture and not just a tech solution, that provides resource for students, but with a bit more thought could provide a better, accessible resource for students. This would provide a way to refocus our institutional approach to more active learning.

For me the question just now is not to lecture capture or not to lecture capture, it is much deeper. In fact I don't really think it is one question. It's a number of them around what, who, how and when we should be investing in people, learning spaces (both physical and digital) and tech to improve and advance learning and teaching.

I wonder if I should ask twitter again . . .

## Suggested Citation

*MacNeill, S. (2019). To Lecture Capture or Not to Lecture Capture? Thatâ[]s Not Really the Question. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/lecture_capture*

# Possible Futures for Innovation and Technology in Higher Education

## Frances Bell

### Editor's Note

This was originally posted to [Frances Bell's blog [https://edtechbooks.org/-trz]](https://edtechbooks.org/-trz) on June 14, 2016.

The actual gap between European/ N American tectonic plates or a photo opportunity at Pingvellir Visitor Centre?

Kate Bowles wrote an interesting post [https://edtechbooks.org/-irB] about how she responded to students' enthusiasm to use Slack and how it worked out well for her and a group of students in thinking about critical narrative professionalism. I've never used Slack but I have heard many good reports of it. Her lovely story of "the everyday nature of artisanal change in universities"  reminded me of my earlier educational experiments with Web 2.0 services such as flickr.com [http://flickr.com] (now much changed), http://del.icio.us/ (apparently in transition), elgg.net [http://elgg.net](an old favourite and still available as Open Source Software) and of course Twitter [http://Twitter.com], a favourite of many academics but whose use of algorithms is now starting to put off some people. I loved those experiments but a more cynical view from the distance of retirement

is of a graveyard of dead or moribund services where some of the undertakers have made off with pockets full of cash or services have morphed into something quite different.

Ben Werdmuller, co-founder of elgg and known.com [http://known.com] and not one of those greedy undertakers, has written a powerful essay [https://edtechbooks.org/-vvS] on how to build an Open Source business. It raised hope for me that there might be possibility for inventive developers and service providers to make a living without ~~fleecing~~ relying on investors and exploiting users via their personal and activity data.

In particular, I wonder about how software and services that might really help education realise benefits of the Internet in future can come into being as supported services for students and staff. How can the benefits available in artisanal pedagogic change be scaled with technical support across universities?  I already wrote about how building technology is more than a heroic tale of invention [https://edtechbooks.org/-QIg] and is a messy process of appropriation and working around. Higher Education's investments in technology have been in infrastructure like networks, computer labs, email services, digital libraries, administrative systems, etc. and of course the ubiquitous Learning Management System / Virtual Learning Environment. When I was working in HE, it was my dissatisfaction with aspects of Blackboard that drove me to try out alternatives such as student blogging, offering Twitter updates as alternative to Blackboard announcements, sharing bookmarks on Delicious, linked within a Blackboard course. A module team I was leading managed to get a Buddypress [https://buddypress.org/] installation going to provide an Open Source Social Networking Service (SNS) for use in supporting first year students on our module.  After IT support was completely centralised that year, this became possible no longer but we still managed to draw on student personal experiences of proprietary SNS to help them critique their use in business. Each year, students became more aware that there were 'costs' of the free

service and they applied workarounds but hadn't thought too much about the broader implications and alternatives until we raised questions with them.

I was interested to see what the business model was for Slack, since it benefited from a [huge new funding round [https://edtechbooks.org/-mrn]](https://edtechbooks.org/-mrn) in 2015 . In March 2016 Slack proclaimed their goal "One day, Slack hopes to replace email as the main form of electronic communication for businesses." Slack's [pricing model [https://slack.com/pricing]](https://slack.com/pricing)is currently '[freemium [https://edtechbooks.org/-HQJ]](https://edtechbooks.org/-HQJ)' with 1 free and 2 levels charged per user, with an enterprise version in the pipeline. [Less than 1/3 of 2.3 million users pay for service [https://edtechbooks.org/-Mvz]](https://edtechbooks.org/-Mvz) and I would guess that currently most of those are on the Standard or Plus pricing plans.

Something that Web 2.0 services can be good at (certainly in their golden funded early stages) is user experience, and Ben Werdmuller [identified [https://edtechbooks.org/-vvS]](https://edtechbooks.org/-vvS) that as a weakness of Open Source systems.

It's difficult for software companies to break into the enterprise market but that's [Slack's aim. [https://edtechbooks.org/-zqq]](https://edtechbooks.org/-zqq) Even ventures like Microsoft Sharepoint who have had some success at the Enterprise level have found to difficult to engage with the complex organisational structures of HE institutions, to move from projects, based in IT Services, to enterprise-wide staff and student applications.

The business models for some SNS like Facebook make member data the product that generates advertising revenue that [can have consequences for members. [https://edtechbooks.org/-hMq]](https://edtechbooks.org/-hMq) Stewart Butterfield speaks warmly of Etsy's business model, [having been an early investor [https://edtechbooks.org/-LwE]](https://edtechbooks.org/-LwE), after selling on Flickr to Yahoo. The reference to Etsy interested me since Gordon Fletcher and I did some research on Etsy in 2012, [presented at AoIR](#)

[https://edtechbooks.org/-gVSo] in October 2012. We found that there were listings that didn't comply with 'handmade' and that some members were selling goods where their labour was valued little or not at all. Sure enough, the following year, Etsy redefined 'handmade' to be not necessarily handmade. Etsy's handmade policy [https://edtechbooks.org/-zIA] is what my dear late mother would have called mealy-mouthed. On a bit of a puff piece, [https://edtechbooks.org/-UWa] Etsy sellers make some interesting comments there about flagrant reselling that they apparently couldn't make at Etsy itself, suggestive of Etsy's approach to diluting dissent. For me the concept of Etsy (though I am attracted to buying there) seems a bit of a sham. The community and handmade feelgood factor that has helped them to acquire investment and sell shares is more apparent than real – in effect community became a part of the product to be sold as the company was launched.

So are there alternatives to monolithic LMS like Blackboard, 'member is the product' SNS like Facebook and chimera like Etsy?

I can think of two examples that are different but that have two things in common: they are grounded in educational practice, based on clear educational philosophies; and they make use of the Open Source blogging software WordPress.

# Student as Producer

Joss Winn and Mike Neary have developed the concept of Student as Producer [https://edtechbooks.org/-WQd] as part of the project questioning What is a University?

> *The point of this re-arrangement would be to reconstruct the student as producer: undergraduate students working in collaboration with academics to create work of social importance that is full of academic content and value, while at the same time reinvigorating the university beyond the logic of market*

*economics.*

Lincoln's [Buddypress site \[http://blogs.lincoln.ac.uk/\]](http://blogs.lincoln.ac.uk/) is active and open and Student as Producer is integral to the University of Lincoln's [plans and operation \[https://edtechbooks.org/-FGI\]](https://edtechbooks.org/-FGI).

> S*tudent as Producer is central to the learning and teaching philosophy at the University of Lincoln, and is embedded within the Teaching and Learning Plan and in all module planning. It is fundamental to everything we do at the University of Lincoln, and is one of the key selling points to potential students.*

# Domain of One's Own

Jim Groom outlined the history of DoOO at OER16, that [I blogged, \[https://edtechbooks.org/-Jqy\]](https://edtechbooks.org/-Jqy)and Mark Sample gave [his perspective as an educator \[https://edtechbooks.org/-fEp\]](https://edtechbooks.org/-fEp) working with Reclaim Hosting. Jim has moved from within HE to a business setting where [Reclaim Hosting \[https://edtechbooks.org/-bAG\]](https://edtechbooks.org/-bAG) offer a fairly-priced service for individuals and universities.

# Possible Futures

I can't lay out a neat plan of how Higher Education can offer technology support for innovation in the future but I do think that the ideas and practices put forward by Ben Werdmuller, Joss Winn, Jim Groom, Tim Owens and Lauren Blumfield can inform a richer possible future than one that relies on Silicon Valley to provide outsourced services or neat packaged solutions.

> Where will HE institutions turn for technology services in future?

Of course, I haven't mentioned MOOCs and their providers but that's another story.

## Suggested Citation

*Bell, F. (2019). Possible Futures for Innovation and Technology in Higher Education. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/possible_futures*

# This is Not the Online Learning You (or We) are Looking For

## Alan Levine

**Editor's Note**

This was originally posted to [Alan Levine's blog
\[https://edtechbooks.org/-UNK\]](https://edtechbooks.org/-UNK) on September 5, 2017.

Yes, I am no Obi Wan Kenobi, have no Jedi mind tricks, and am
completely mangling [the classic Star Wars line
\[https://edtechbooks.org/-etG\]](https://edtechbooks.org/-etG). But I like it.

In the notification letter I received last month for the institution I am adjunct teaching for (remotely) this semester, there was an offer to complete a New Faculty Orientation that was delivered online. That's considerate of my case of not being able to come to campus. There was even a $75 incentive, which to me is a nice touch.

I've flipped and flopped and flooped about writing about this experience, which was rather dismal, as it is my employer. But my educator conscience is deeply bothered.

So this online orientation was delivered through the LMS, Blackboard Learn. While I may have a reflex to bash the LMS, I've not seen the inside of one in a long time, and maybe never as a student.

While in total [critical agreement with Sean Michael Morris](https://edtechbooks.org/-ViA) [https://edtechbooks.org/-ViA], I'd say the design of such systems has a significant impact on the courses it pops out, somewhere behind all this is a person, an educator, maybe an instructional designer making choices about how to assemble them. And if they are good, they ought to be able to do some creative end arounds within the arcane structures there.

Again, my main complaint is not the dreaded LMS, but when I see this screen (it was a browser tab I left open and came back a day later), I have to scream that there is absolutely no excuse for a software, especially one that has been around this long, to present to a learner a red bannered ACCESS DENIED screen.
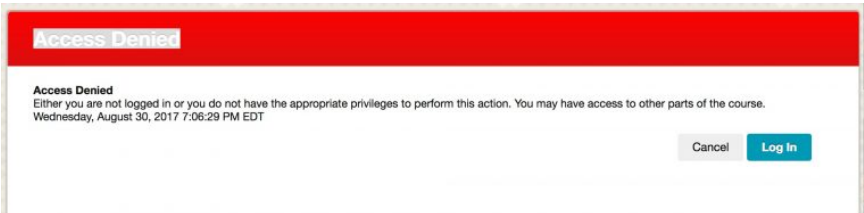
**This is abhorrent, repulsive, and wrong on every front.** Most modern web application systems like my bank, my insurance company, present warnings when my session is about time out, and if it does, will leave a human message, like
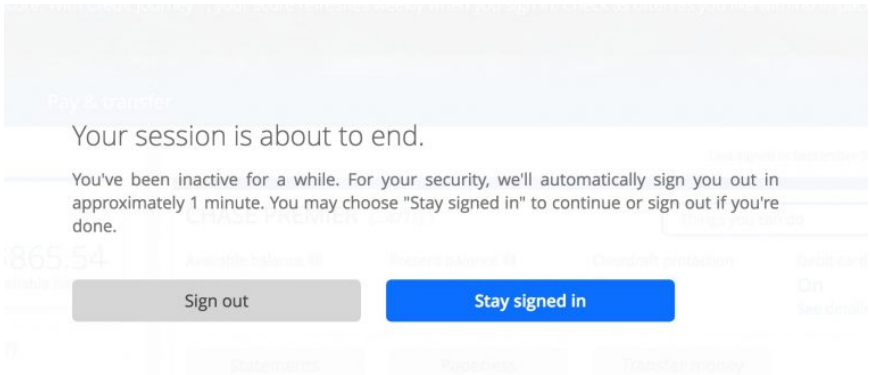


A humanly worded warning from my bank. Why can't an LMS do this?

If I do not do anything, it lets me know "You've been signed out."

There is a huge difference between that and ACCESS DENIED. Huge. I'm a human being damnit, my life has value [https://edtechbooks.org/-DoH].

Blackboard has been around about since the time my students were born, and they cannot do better human experience design than ACCESS DENIED?

I do not know if these screens are built into Blackboard or if it is the way it is locally set up, but this is wrong, vile on every level. What is a student new to online learning mean to feel upon seeing such a message?

But that's easy pickings for criticism.

What's equally bad is the "design" of this course (air quotes

intentional).

Despite adding data tracking and more quiz tools, this Blackboard course I saw tells me the basic structure of the system has not evolved at all since I first saw it in the late 1990s.



Pixabay image by EsaRuitta shared into the public domain using Creative Commons CC0

It's folders of folders of [folders of...] of documents all the way down.

Each course is a storage device (easily disposed of), inside you find folders for units, modules, and inside a recursive directory structure of more content files. The course I saw had 10 folders or units, in each one was a page with a list of objectives, a content folder that contained only an index of links to Word documents, Powerpoint files, external web links. Then there was an "assessment" a multiple choice quiz.

This course was set up that I could not proceed to say unit 2 until I passed the quiz does unit 1.

Let me break down few things.

# I Don't Mind Objectives But...

I fully accept that Objectives are useful when designing a course, like a sticky note that keeps you focused on how you design it. As a learner, I almost never look at them. First of all, they are not my objectives. They are the objectives of the course for me. Does the course care what I want to learn? Nope.

My objectives in taking a new faculty orientation might be:

- To learn more about the history, culture of the institution.
- To understand the students who attend it.
- To know resources, people who can support me as a teacher.
- To know other resources/departments I may need to use.

My objective is to be a great teacher and for my students to do exceptional work.

But the objectives of this New Faculty Orientation are really to tell me the names, locations, services of various administrative offices, to inform of policies. The opening unit did have some suggestions, quasi messages about teaching. The nine others had almost nothing to do with pedagogy.

# It's Lonely Out in Online Learning Space

This course had no voice, no character, no personality. And it treated me the same, there was nothing that acted like it was a person talking to me. It was really "Here are objectives, a pile of content, and you must pass the quizzes to proceed." This is brutal, content-centric, non-human, un-empathetic design.

There was nothing to connect the disparate pieces of content, to weave connections.

And mostly, there was no social/presence of others. I was drifting alone in online learning space.

The opening unit was the only one I actually even saw humans. It was a one hour video of a provost welcoming new faculty at an in person orientation. (I should add, that the intro to the unit said estimated completion time as 20-30 minutes yet the content was an hour long video. Do the math).

This is huge design flaw in online instruction, that a video of what is done in person would be effective to an online learner (I should add the video quality was such that I could barely hear the people in the audience).

## Meaningless, Inane Assessments

If you really want me to feel a sense of accomplishment in a course, for *****'s sake do not build it as a set of multiple choice questions that I can pass merely by analyzing the responses.

Frankly after sifting through that first unit, seeing that there were 9 more, I was ready to say fugggedaboudddit.

Then I had an idea. The end of unit "assessments" (which I will keep putting air quotes around) were 4-8 multiple choice questions. You had to pass them to move on to the next unit– by the way I find this lock step approach an insult to my intelligence, it's a method right out of the ways prisons operate.

When you submitted a quiz, it told you what you got right and wrong, and offers the chance to retake the quiz.

That's where my light bulb went BING. **I would do what any student would do.** Given this brutal instructional treatment, my objective now is to jump through the system hoops as quickly as

possible to get back to doing something worthwhile.

**I decided to skip all the unit content, and go directly to the quizzes.** When I got my results, I wrote down on a piece of paper the correct answers, and retook the quiz.
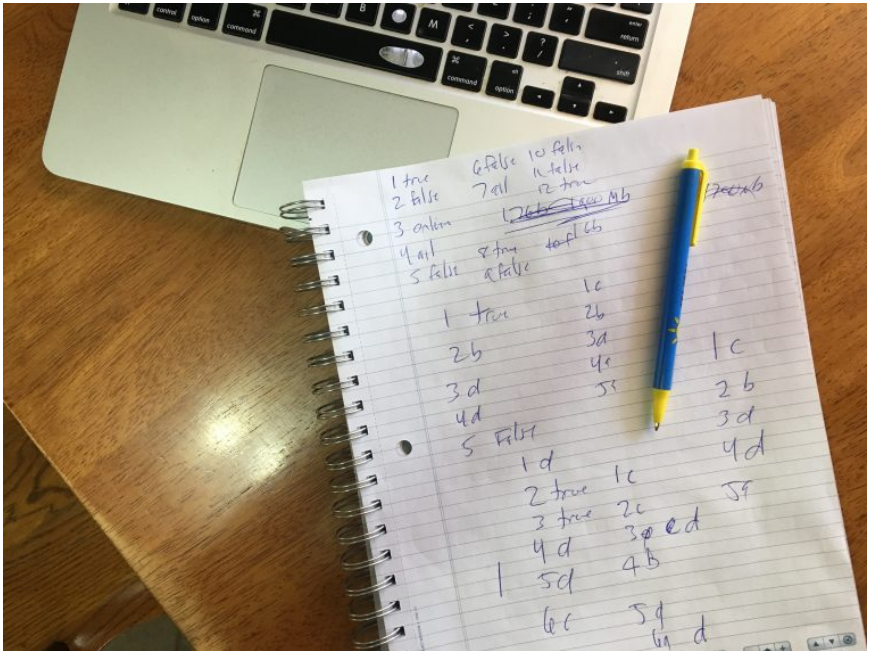


In this way, I completed the entire course in about 75 minutes, while I ate dinner. I have always been skilled at multiple choice tests (is there a job where I can use this skill?), and in fact, without reviewing any content, I passed on the first time through the units on Instructional Computing, Ethics, and Affirmative Action.

These are the types of questions I could answer simply by discarding the obvious wrong ones or just applying logic.

**QUESTION**

The goal of the student conduct process at is to punish students for breaking the law

○ True
○ False

---

**QUESTION**

Adjuncts are permitted to accept gifts related to his/her official job duties.

○ True
○ False

## QUESTION

Who can I call to access my  Email account?

○ a. The Office of Computer and Information Services

○ b. The Office of Human Resources

○ c. The Cafeteria

○ d. The Athletics Department

These are obvious (well to me) terrible assessment questions. When I see these kinds of questions, it signals to me "This is a game" that they don't really care about what I have learned, they care about looking like they care about what I have learned. This assesses absolutely nothing.

When I lose respect for your "assessment", I lose respect for your content, and your objectives. It's not only disposable, this is completely worthless no matter how many charts and graphs you can generate from its data.

# Fin

In the end, none of my objectives for this faculty orientation were met. And the fact I can pass the "assessment" without seeing a shred of content should signify the designers' objectives are not met either. My objective became "how can I pass this thing as effortlessly and quickly as possible."

I have no idea how widespread this style of course design is in higher education. It scares me to even wonder. This is not totally the fault of the LMS, a person or group of persons made these design decisions and put them into place.

The answer is not in the technology, it's PEBKAC.

And now I have to wonder if the Storm Troopers are coming after me...

### Suggested Citation

please as long as you properly attribute it.

# Reclaiming Disruption

## Karen Cangialosi

### Editor's Note

This was originally posted to [Karen Cangialosi's blog \[https://edtechbooks.org/-hah\]](https://edtechbooks.org/-hah) on June 30, 2017.

One of the problems with being a slow writer, is that as you are in the middle of putting something together, you keep reading and wanting to add more. (I blame twitter for this).

Just after returning from Domains17, I started reading tweets from the New Media Consortium 2017 conference (which I didn't attend), then the transcript from [Audrey Watters keynote \[https://edtechbooks.org/-dHY\]](https://edtechbooks.org/-dHY). And the lurking ghost in my mind materialized with her words:

*"No matter the predictions we make about disruption, in time everything in ed-tech becomes indistinguishable from the learning management system." AW*

Of course we want our DoOO project to succeed and for many students to engage. But the fear that the 'administration' or the college 'marketing and communications' office or whoever, will want to take this project from us and turn it into something else if we become too successful, too visible or too widespread has been haunting me from the beginning.

[https://edtechbooks.org/-wqF]

This ghost has of course plagued others that have come before me. Martha Burtis, in her Domains17 keynote, '[Neither Locked Out, Nor In [https://edtechbooks.org/-dXe]](), asks: *"How do we free our students from the shackles of corporate and commercial Web spaces without creating some new kind of shackle?"* As someone who has been employed by an institution for a long time, but considers herself an activist, I am accustomed to working with [One foot in, One foot out [https://edtechbooks.org/-mV]](). We become at least semi-comfortable

with this quagmire, we use Trojan horse solutions. (Over the years, my co-conspirators and I have effectively wheeled in a lot of Trojan horses). But only those of us with privilege (like tenure) can even do that. Yet another paradox.

*"We prefer to think of ourselves as professors or pedagogues or scholars or students, not as consumers or users." AW*

But my worry about our DoOO project being co-opted by the dominant systems, the consumer-driven forces, feels especially frightening now, because more than ever before, Higher Ed IS A CONSUMER-DRIVEN BUSINESS. Even here, in spite of our designation as a "public" college. Or maybe especially here, BECAUSE of our small, poorly funded public college status with far fewer resources and high student debt (only 8% of our funding comes from the state). So we are fairly low in the higher education caste system [https://edtechbooks.org/-fvj](a la Bryan Alexander), and efficiency and productivity drive everything we do now.

And Silicon Valley ideology creeps in more and more every day.

*"That is to say in my mind at least, Silicon Valley ideology – libertarian, individualist, consumerist, capitalist – seeks to mediate all relationships: social, professional, civic, familial." AW*

The ideologies that we hope will shape our DoOO project, when we use words like inclusion, connection, community, agency, access, contribution could be undermined, transmuted into things that we did not intend. This keeps me up at night.

*"New technologies, and the ideologies that underpin them, have brought the language of efficiency and productivity out of the workplace and into the classroom and into the home – into the realm of reproductive labor. Everything becomes a data-point to be tracked and quantified and analyzed and adjusted as (someone deems) necessary." AW*

And especially kicks the bees in my bonnet ([HT Tanya D E](https://edtechbooks.org/-wEF]) [https://edtechbooks.org/-wEF]) about institutional 'assessment'. Because really it's about surveillance, isn't it? And we have "confused surveillance for care". I am haunted by the knowledge that Domains, Domains of our Own, or whatever we call this thing that we are doing, is/are not immune to being turned into an electronic portfolio system that can be 'assessed'. The distinction between assessment and surveillance seems really blurry to me.

I take Audrey Watters work (not just in this piece, but in all of her writing) as a call to action. If there are those of us that want a different educational narrative, a more compassionate ideology focused on actual care, and real 'transformation' based on voices that promote these ideas- instead of the now dominate, capitalistic, greed-based, corporate scheming that is currently underlying the 'ideologies that underpin our technologies'- then we need to be explicit in our work and our writing about this, we need to organize together to promote a different kind of messaging, we need to openly fight against this mechanistic and profit-based for the sake of profit mentality that is driving not just educational technology, not just education generally, not just (jeezuz!) parenting – but EVERYTHING that we do, that we believe in, that we believe is our reason for existing on the planet in the first place.

> EVERY SINGLE WORD OF THIS. "Thinking Dangerously: The Role of [#HigherEd [https://edtechbooks.org/-NAH]](https://edtechbooks.org/-NAH) in Authoritarian Times" by [@HenryGiroux [https://edtechbooks.org/-zen]](https://edtechbooks.org/-zen) [https://t.co/tviNDTo8bE](https://t.co/tviNDTo8bE)
>
> — Robin DeRosa (@actualham) [June 28, 2017](https://edtechbooks.org/-ho) [https://edtechbooks.org/-ho]

YES. EVERY SINGLE WORD OF THIS. (Please go read the whole thing, there is so much more there than what I can include here and ALL of it is critical).

[Thinking Dangerously: The Role of Higher Education in Authoritarian Times by Henry Giroux \[https://edtechbooks.org/-apy\]](https://edtechbooks.org/-apy)

This brilliant piece helps illuminate the links between education and real democracy that Audrey Watters is constantly talking about.

*"At the core of thinking dangerously is the recognition that education is central to politics and that a democracy cannot survive without informed citizens. Critical and dangerous thinking is the precondition for nurturing the ethical imagination that enables engaged citizens to learn how to govern rather than be governed. Thinking with courage is fundamental to a notion of civic literacy that views knowledge as central to the pursuit of economic and political justice. Such thinking incorporates a set of values that enables a polity to deal critically with the use and effects of power, particularly through a developed sense of compassion for others and the planet. Thinking dangerously is the basis for a formative and educational culture of questioning that takes seriously how imagination is key to the practice of freedom. Thinking dangerously is not only the cornerstone of critical agency and engaged citizenship, it's also the foundation for a working democracy."* HG

We all need to become braver, more dangerous thinkers like Audrey Watters. And more so, we need to be willing to speak up, step up and take risks like she does. We need to teach so that our students learn how to think dangerously. I believe that Domain of One's Own projects need to be about this.

*"Education is also vital to the creation of individuals capable of becoming critical social agents willing to struggle against injustices and develop the institutions that are crucial to the functioning of a substantive democracy. One way to begin such a project is to address*

*the meaning and role of higher education (and education in general) as part of the broader struggle for freedom." HG*

YES. This is the conversation I believe we should be having. How do we address the meaning and role of higher education as a struggle for freedom? We have done an excellent job at pointing out the problems, but I believe we need to be more consciously and actively working on solutions. Higher Education is currently imploding in many ways. The time is now to redirect it, reshape it, make it become what most of us have always wanted it to be- A place for the " *creation of individuals capable of becoming critical social agents willing to struggle against injustices".*

It's time to not just reclaim the web, but to Reclaim 'Disruption'. That word needs to be taken back, (the way many of us reclaimed the word 'dyke' a long time ago). Give it teeth, make it have some power. Can DoOO be the pathway to truly transmogrifying higher education? Can it provide the culture chamber for " an educational culture of questioning"? Where students can be nurtured and allowed to " *deal critically with the use and effects of power,*

**particularly through a developed sense of compassion for others and the planet"***?* THIS IS KEY.

Reclaiming Disruption means that we need to keep raising 'in your face' questions and work towards answering them.

Lora Taubs in her [Reclaiming the Web \[https://edtechbooks.org/-Cstr\]](https://edtechbooks.org/-Cstr) post asks:

*"Where are the radical possibilities within higher ed? How can we connect Domains to those initiatives? To civic engagement? Global studies? LGBTQ initiatives? Teacher Ed? Departments with social justice missions? Initiatives like Intergroup Dialogue? Where are the spaces/partners working to advance social solidarities? And how can we propose Domains as an ally, an amplifier, to these efforts? " LT*

And just about everything that Jesse Stommel and Sean Michael Morris ever said. ("NO, you don't own your own domain if I grade it." JS  for example)

And when we're thinking about WHO is doing this work, shaping our ideologies, we need to think about who ISN'T shaping our ideologies now, who hasn't been invited to the table, and why. We need to focus actively on making sure they get there. (One of the things that stuck in my mind from domains17 was the opening night gathering at the Retro Flashback pub. A fun place filled with arcade/video games that you could play as much as you want for free. Tanya and I tried a few games and then realized that we didn't really know the rules for any of them. Then Tanya, Sundi, Martha, me and some other women were chatting, we felt this familiar feeling, and then named it. This is a boys place; a white boys place. Yeah, some of us noticed.)

Reclaiming Disruption means that we need to disrupt the 'audit culture' of education.  It means to prevent students from becoming trained pigeons.

*"Audit cultures support conservative educational policies driven by market values and an unreflective immersion in the crude rationality of a data-obsessed market-driven society; as such, they are at odds with any viable notion of a democratically inspired education and critical pedagogy. In addition, viewing public and higher education as democratic public spheres necessitates rejecting the notion that they should be reduced to sites for training students for the workforce — a reductive vision now being imposed on public education by high-tech companies such as Facebook, Netflix and Google, which want to encourage what they call the entrepreneurial mission of education, which is code for collapsing education into training." HG*

Maybe Reclaiming Disruption means that our domains projects need to be a sort of civil disobedience of the web.  Where we, as teachers, cultivate the compassion in our students but let go of all of the

control, so they can disrupt our institutions and create pathways to freedom outside of them.

*"Educators, students and others concerned about the fate of higher education need to mount a spirited attack against the managerial takeover of the university that began in the late 1970s with the emergence of a market-driven ideology..."* HG

## Suggested Citation

*Cangialosi, K. (2019). Reclaiming Disruption. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/reclaiming_disruption*

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# Openness & Sharing

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There is a very strong argument that the single most important role that technology has played in the history of education is improving our ability to share.

The Gutenberg press fundamentally shifted the centralization of knowledge production from monastic institutions and allowed for the moderately wealthy to have personal home libraries that rivaled those of early empires. The advent of mass media and publication allowed for oceans of data and information to be printed, indexed, and organized, giving rise to the modern library. And now digital technologies allow for information to be rapidly and cheaply broadcasted such that even learners in some of the most impoverished

settings can, via a smartphone, e-book reader, or laptop, gain quick access to the most robust set of books, encyclopedias, and databases ever created.

Technical capacity, however, is not enough to ensure that sharing occurs or that people will benefit, because technologies that empower us to share can also be used for surveillance and restriction of learner activities, and the ability to fully utilize a commons of resources requires basic access and various literacies that, if not addressed, will perpetuate digital divides between the haves and have-nots.

In this section, authors discuss utopian visions that modern digital technologies can play a role in making possible and also grapple with many of the tensions, compromises, and paradoxes that openness and sharing via technologies introduces for teaching and learning. Can we live in a world where everyone shares and has access to meaningful learning opportunities? Can we live in a world where everyone can learn without traditional economic, geographic, and other barriers getting in the way? And if so, what moral and legal mandates must we put in place to ensure that the potential opening of learning that digital technologies afford actually becomes a reality?

# Into the Open

## Karen Cangialosi

### Editor's Note

This was originally posted to [Karen Cangialosi's blog \[https://edtechbooks.org/-Ksr\]](https://edtechbooks.org/-Ksr) on August 5, 2016.



The Seawall in Vancouver by K. Cangialosi

My 2016 summer session biology course, Evolution and Human Behavior, finished up a few weeks ago. I had asked my students to write a final blog post reflecting on their experiences in the course and figured it is about time that I do the same.

As I began to think about the summer course itself, I found that I needed to go back a little further and review how I got to this point. My decision to dramatically transform my teaching of this course

came about as a result of a series of events and interactions. Last year, I spearheaded a complete overhaul of one of our two main Introductory (1st year) biology courses, BIO 110 Molecules and Cells, using a blended design. Since most of the content was to be delivered online, we searched for an online textbook. Who knew that the journey into looking for free online readings and resources for our biology students would be the beginning of my journey into understanding the meaning and power of open education? We decided to use OpenStax Biology, an OER (Open Educational Resource). I thought it was great to be able to provide links to just those chapters that we wanted our students to learn, put them in whatever order we liked, and that there were practice quizzes and links to animations.  At the time, because we also used a lot of other freely available stuff like YouTube videos, material from the [Genetics Learning Science Center](https://edtechbooks.org/-CSI) [https://edtechbooks.org/-CSI] and other sites; the distinction between 'free' and 'open' was lost on me. We were saving our students money and that seemed like a big deal.

Then a few things happened that really opened (pun intended) my eyes and my world to the possibilities of Open Education. First of all, I was invited by our Keene State College Academic Technology director, Jenny Darrow, to attend the 2015 Open Education Conference in Vancouver last November.  What a difference a conference can make!  As I listened to numerous speakers, and had discussions with participants, it all started to become a little clearer. Open was about so much more than 'free stuff'. In my quest to understand more, during the conference, I began typing a list of things in my notes that I titled: "Possible things that people mean when they say Open". I shared my list with Jenny, and we kept discussing and going back and forth about what Open is and the potential that it held, not just for KSC, but for revolutionizing Higher Ed. The real turning point for me was realizing the incredible fortune (a great stroke of luck really!) that I had in having [Robin DeRosa](http://robinderosa.net/) [http://robinderosa.net/] from Plymouth State University as a USNH (University System of New Hampshire colleague)! If you don't already

know, Robin is a superstar in the Open Ed movement. There was a 'light bulb' moment (or two or three…) during some conversations with Robin when I realized that the true power and potential of Open Ed wasn't OER, but Open Pedagogy. Robin, and the colleagues that she connected with, were talking about revolutionary transformation in how we teach, and in how students could learn. This was powerful stuff and I wanted to know more.

Jenny and I wasted no time in inviting Robin to speak at Keene State College in January 2016. I've been in academia a long time, and I have had more than my share of cynicism and eye-rolling at Higher Ed jargon and slogans like 'student-centered' and 'putting learners first' and 'innovation'. But Robin was actually *doing it* -and being wildly successful at it.  Robin talked about making students the 'architects of the course' and having no 'disposable assignments' and emphasizing 'community and collaboration over content'.  She asked us to consider 'what is the shelf-life of the content in your discipline?' And even more powerfully- the crux of **open** pedagogy- that students need to be connected to a larger world outside of their classroom, their institution of higher learning, their instructor and their peers. "To bring the students into the community of scholars, you need to engage students in their professional and scholarly communities- in their own institutions with other professors, with professors and scholars and workers at other institutions, with students outside of their classroom, with students at other institutions, and with community stakeholders – so they can enter the knowledge economy that is turning over so much faster than ever before" (Robin DeRosa January 2016).  And how better to do that than through the use of the internet and digital tools? But this was about so much more than technology.

*"…networked learning is not about digital tools, but about the dream of the public commons. And that's not about new high-tech modes of connection but about community-driven communication and the empowerment of diverse public voices."* [Robin DeRosa 2015, Working In/At Public [https://edtechbooks.org/-Dpq]](https://edtechbooks.org/-Dpq)

When technology itself is presented as the central force driving change in education, it is often seen for the falsehood that it is by many a wise faculty member. Academic technology is just a set of tools, maybe a really awesome set of tools, but still a set of tools that have no skills and creativity of their own (like a set of high-end power tools, useless in the wrong hands). I have heard many faculty members say things like, 'I'd like to use educational technology, but I don't have time to learn it well enough to teach it to my students'. But the tools are NOT the point. In fact, Robin points to her own lack of familiarity (when she started) about how to use some of the technological tools, and how this actually improved her pedagogy because students going out and trying to learn things on their own *IS* the point. Inspire students, shake their foundations, teach them how to ask good questions, motivate them to seek answers and make connections- this is what we have always striven for as good educators. So why keep using a screwdriver to do this work when you have access to set of power tools?

Following Robin ([@actualham \[https://edtechbooks.org/-ySQ\]](https://edtechbooks.org/-ySQ)) on Twitter, reading nearly everything she has written about Open Ed, and reading and listening to other experts in Open Education and Educational Technology, led me eventually to listen to a [Future Trends Forum \[https://edtechbooks.org/-odY\]](https://edtechbooks.org/-odY) hosted by Bryan Alexander and his guest for the day, Gardner Campbell. Gardner said many brilliant things that day, and I really encourage you to listen for yourself to the recording at Bryan's website. But the one thing that he said, that stuck in my mind and wouldn't leave, was that his most important learning outcome for his students was that they have "an increased capacity for interest, both in breadth and in depth". When I heard this, I thought- that is exactly the learning outcome I want for my students- and the only learning outcome that is necessary.

I went to the notes that I had been making for a while about changes that I wanted to make in my online course, Evolution and Human Behavior, and wrote in all caps to myself: 'SCRAP THE WHOLE

F...ING COURSE AS IT IS!'

When Gardner Campbell talked about students not just contributing to the digital commons, but to that *"larger commons that we call civilization"*; and Robin wrote *"...what I think we could work for is the slow and deliberate carving out of a public digital space...one that insists on the critical naming and challenging of silencing, exclusive, cruel, and oppressive structures"*, I was moved in a way that I had not felt since reading [bell hooks [https://edtechbooks.org/-Hcs]](https://edtechbooks.org/-Hcs). Education could truly be about the practice of freedom, about real transgression, and the tools of Open Education could help get us there in a way that we have not experienced before. For those of us that believe that our job is to help students become agents that can transform the society we live in, not just replicate it, the potential of Open Ed was like breathing fresh air after living for a long time in a dark, moldy basement. But Robin also reminds us that Open is not a panacea, it is up to us to thoughtfully implement it in ways that make student learning truly transgressive.

So, my summer Evolution and Human Behavior course became my learning space and my first baby steps towards trying to do this.

INBIO 300 Evolution and Human Behavior is an upper-level, non-majors biology course that 'counts' as a requirement in the integrated studies (general education) program at Keene State College. So students don't necessarily have a lot of background in the subject area, but they are not first-year students either so they've learned a thing or two about how to navigate a college course. I used Canvas (the LMS for Keene State) as a place to provide 'nuts and bolts' information, but mostly the course took place via students blogs and twitter. I thought hard how to get rid of my usual managerial style of teaching which is often too controlling. In the spirit of Gardner Campbell, I wanted to create a 'swirling madness' that allowed to students to explore whatever ideas were interesting to them and help them avoid their tendency to be compliant as a means of getting a

good grade.  (The canvas course is publicly visible and you can access most of the material here [https://edtechbooks.org/-kpQ] if you like.)

Because human behavior is inherently interesting to most people, and offers such a broad range of possibilities for investigation, it seemed like the perfect course to do this experiment.

Also, as the understanding of evolution is fundamental to the study of every sub-field within biology, I wanted students to figure out its importance through their own self-driven interest and discovery. Students were asked to explore whatever questions or topics interested them within the context of the evolution of human behavior. I gave them questions to begin with, but they were free to explore questions not on my list if they wanted to. I also gave them a vocabulary list and asked them to incorporate the terms into their blog posts. (I guess I wasn't ready to entirely give up all my instructional influence on what they were doing, and I am not sure this is a bad thing. I welcome any suggestions or comments about this or anything else).  I also provided several readings, articles, videos and other content to help get them started if they wanted to use it. But everything was optional.

I barely provided any instructions on how to set up a blog (using wordpress) and all of them seemed to figure it out without major problems. Along the way, I answered a few questions and gave them some feedback via screencasts, but they mostly used wordpress help or other resources to set up and modify their sites. I am especially grateful to Laura Gogia (@GoogleGuacamole [https://edtechbooks.org/-go]) for her incredibly well-constructed resources for how to do proper and effective hyperlinking, embedding and attributing. I basically copied and pasted her stuff into my canvas course- it is so excellent and anyone considering using student blogs for their courses needs to read her work at The Integration of Web Culture into Higher Education [https://edtechbooks.org/-Kcn]. Check out especially the drop-down menu for students.  And no course like

this would be worthwhile without explanation and a link to [Creative Commons [https://creativecommons.org/]](https://creativecommons.org/).

Summer sessions are different in many ways, the time goes very quickly (only 7 weeks), and having only 9 students in the class makes it a different experience as well. It allowed me to read every blog and tweet and comment that any of them had written through the whole course- and to respond. I am still figuring out how to strike that balance between wanting them to feel my presence and input, but not wanting them to feel like they were always under surveillance or just writing for me.  Most of them did a great job commenting on the blog posts of their peers (another requirement).

I think twitter worked extremely well for discussion, reminders, links to blog posts, articles and any interesting stuff.  (You can explore #evolhumbehav on twitter if you are interested). It took some arm-twisting for some students to tweet, but most of them got it quickly and liked using it. There was resistance by one student who hated it. How much did they tweet just because I 'made them'?  I'm not sure I can answer this but a couple of them are still tweeting now that the class is over which is very gratifying to see. Towards the end of the course, I organized a synchronous Twitter chat with my students. It worked really well and next time I will organize one of these much sooner and do a few more.

My efforts to engage them in the larger community outside of the class were only somewhat successful. I think the short session time and summer vacations contributed, but I what I need to do mostly is to keep building my own online PLN (personal learning network).  But it was so great to see blog post comments and tweets from my wonderful colleagues and tweeps (especially @actualham, @googleguacamole, @susanwhittemore) and from some people with whom I had no previous connections. My students mentioned that they really liked hearing from others outside of our class, and again, the whole point of blogging and communicating outside of an LMS.

For grading, I used only self-evaluation forms where I asked them to give a grade for various things and to explain why they should have that grade (there were a total of 3 self-evaluation forms for them to complete- at 2 weeks, 4 weeks and 7 weeks. My hope was to get them thinking about their efforts and to see what might need improvement. At the end, I asked them to give an overall grade for themselves for the class. Surprisingly, they almost all gave themselves the same grade that I would have given them without their input. I also asked them whether they planned to keep blogging in the future and saw potential in their site for other uses.  Most of them said yes and I will keep an eye out for their work!  One student already made significant progress towards making her site into a professional e-portfolio.

In closing, I want to say that I really enjoyed this class much more than I usually do! I was so very impressed with my students and I learned many new things. It definitely increased my interest in continuing to learn how to be an educator in the Open.

*"Holy shit, bigger world!" (quote from Gardner Campbell, June 2016, USNH Academic Technology Institute).*

## Suggested Citation

*Cangialosi, K. (2019). Into the Open. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/into_the_open*

# Defining the 'Open' in Open Content and Open Educational Resources

David Wiley

**Editor's Note**

This was originally posted to [David Wiley's blog
[https://edtechbooks.org/-tFQ]](https://edtechbooks.org/-tFQ).

The terms "open content" and "open educational resources" describe any copyrightable work (traditionally excluding software, which is described by other terms like "open source") that is either (1) in the public domain or (2) licensed in a manner that provides users with free and perpetual permission to engage in the 5R activities:

1. Retain - the right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage)
2. Reuse - the right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)
3. Revise - the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
4. Remix - the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup)
5. Redistribute - the right to share copies of the original content,

your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

# Legal Requirements and Restrictions Make Open Content and OER Less Open

While a free and perpetual grant of the 5R permissions by means of an "open license" qualifies a creative work to be described as open content or an open educational resource, many open licenses place requirements (e.g., mandating that derivative works adopt a certain license) and restrictions (e.g., prohibiting "commercial" use) on users as a condition of the grant of the 5R permissions. The inclusion of requirements and restrictions in open licenses make open content and OER less open than they would be without these requirements and restrictions.

There is disagreement in the community about which requirements and restrictions should never, sometimes, or always be included in open licenses. For example, Creative Commons, the most important provider of open licenses for content, offers licenses that prohibit commercial use. While some in the community believe there are important use cases where the noncommercial restriction is desirable, many in the community strongly criticize and eschew the noncommercial restriction.

As another example, Wikipedia, one of the most important collections of open content, requires all derivative works to adopt a specific license - CC BY SA. MIT OpenCourseWare, another of the most important collections of open content, requires all derivative works to adopt a specific license - CC BY NC SA. While each site clearly believes that the ShareAlike requirement promotes its particular use case, the requirement makes the sites' content incompatible in an esoteric way that intelligent, well-meaning people can easily miss.

Generally speaking, while the choice by open content publishers to use licenses that include requirements and restrictions can optimize their ability to accomplish their own local goals, the choice typically harms the global goals of the broader open content community.

# Poor Technical Choices Make Open Content Less Open

While open licenses provide users with legal permission to engage in the 5R activities, many open content publishers make technical choices that interfere with a user's ability to engage in those same activities. The ALMS Framework provides a way of thinking about those technical choices and understanding the degree to which they enable or impede a user's ability to engage in the 5R activities permitted by open licenses. Specifically, the ALMS Framework encourages us to ask questions in four categories:

1. Access to Editing Tools: Is the open content published in a format that can only be revised or remixed using tools that are extremely expensive (e.g., 3DS MAX)? Is the open content published in an exotic format that can only be revised or remixed using tools that run on an obscure or discontinued platform (e.g., OS/2)? Is the open content published in a format that can be revised or remixed using tools that are freely available and run on all major platforms (e.g., OpenOffice)?
2. Level of Expertise Required: Is the open content published in a format that requires a significant amount technical expertise to revise or remix (e.g., Blender)? Is the open content published in a format that requires a minimum level of technical expertise to revise or remix (e.g., Word)?
3. Meaningfully Editable: Is the open content published in a manner that makes its content essentially impossible to revise or remix (e.g., a scanned image of a handwritten document)? Is the open content published in a manner making its content easy

to revise or remix (e.g., a text file)?

4. Self-Sourced: It the format preferred for consuming the open content the same format preferred for revising or remixing the open content (e.g., HTML)? Is the format preferred for consuming the open content different from the format preferred for revising or remixing the open content (e.g. Flash FLA vs SWF)?

Using the ALMS Framework as a guide, open content publishers can make technical choices that enable the greatest number of people possible to engage in the 5R activities. This is not an argument for "dumbing down" all open content to plain text. Rather it is an invitation to open content publishers to be thoughtful in the technical choices they make - whether they are publishing text, images, audio, video, simulations, or other media.

## Suggested Citation

*Wiley, D. (2019). Defining the 'Open' in Open Content and Open Educational Resources. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/open_definition*

# Exploring the Open Knowledge Landscape

## Lorna M. Campbell

### Editor's Note

This was originally posted to [Lorna M. Campbell's blog](https://edtechbooks.org/-Usd) on May 1, 2018.

*Transcript and slides from my keynote at the [FLOSS UK Spring Conference](https://edtechbooks.org/-NL) in Edinburgh.*

[https://edtechbooks.org/-mZN]

I'm not a programmer.  I'm not a developer.  And I don't contribute directly to the creation of free and open source software.  I originally started out as an Archaeologist but I now work in the domain of Open Knowledge and more specifically open education.  I currently work for the Open Education Resources Service within the Information Services Group at the University of Edinburgh, I'm a Board member of both the Association for Learning Technology and Wikimedia UK, and a member of Open Knowledge International's Open Education Working Group. All these organisations are part of the Open Knowledge landscape and what I want to do today is provide a broad overview of some of the different domains, communities and cultures that make up this landscape including open education, open data, open textbooks and Open Access Scholarly works.  And I also want to explore the boundaries that crisscross this landscape and demarcate

these open spaces, and ask who is included, who is excluded, and what we can do to make our communities more diverse and inclusive.

In the words of the late, great Maryam Mirzakhani, former professor of mathematics at Stanford University and the first female winner of the Fields Medal, who sadly passed away last year.

> "I like crossing the imaginary boundaries people set up between different fields—it's very refreshing. There are lots of tools, and you don't know which one would work. It's about being optimistic and trying to connect things."

So that's what I want to do today, to look at how we can cross the imaginary boundaries of the Open Knowledge landscape and connect our different open communities.

Of course the open landscape will look very different to each and every one of us and the view we see will depend very much on our personal perspective and the privilege of our vantage point. These are some of the domains and communities that populate the Open Knowledge landscape as I see it.

- Open licenses
- Open educational resources
- Open education policy and practice
- Open textbooks
- Open badges
- Open online courses
- MOOCs (a very contested open space.)
- Open data
- Open science
- Open Access scholarly works

- Open source software
- Open standards
- Open government
- Open GLAM

I'm not going to attempt to cover all these areas, as we'd be here until next week, but I do want to explore some of the areas that I'm most familiar with and look at how we can all benefit from crossing the boundaries and building connections between these domains.

# Open Education and OER

So let's start off with open education and OER.

The principles of open education were first outlined in the 2007 Cape Town Declaration, which laid the foundations of the "emerging open education movement" and advocated for the development of open education policy to ensure that taxpayer-funded educational resources are available under open license.  The Cape Town Declaration is still an influential document and it was updated last year on its 10th anniversary as Capetown +10 and I can highly recommend having a look at this if you want a broad overview of the principles of open education.

There is no one hard and fast definition of open education but one I like is from the not for profit organization OER Commons…

> "The worldwide OER movement is rooted in the human right to access high-quality education. The Open Education Movement is not just about cost savings and easy access to openly licensed content; it's about participation and co-creation."

Though Open Education can encompass many different things, open educational resources or OER are central to any understanding of this domain.

UNESCO define open educational resources as:

> "teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions."

It's useful to note that this definition accommodates a wide range of different resource types and it's notable that the term OER is interpreted very differently in different communities. In the US currently, OER tends to equate to open textbooks, and I'll go on and say why shortly, while in the UK we tend to have a much broader understanding of OER that encompasses a wide range of teaching, learning and cultural heritage resources.

The reason I chose this particular definition is that UNESCO is one of a number of organisations that actively supports the global adoption of OER. In 2012, five years after the Cape Town Declaration, UNESCO released the Paris OER Declaration which encourages governments and authorities to open license educational materials produced with public funds in order to realize substantial benefits for their citizens and maximize the impact of investment. And last year UNESCO brought together 111 member states for the 2nd OER World Congress in Slovenia, the main output of which was the UNESCO Ljubljana OER Action Plan. Central to the OER Action plan is the acknowledgement of the role that OER can play in achieving United Nations Sustainable Development Goal 4 [https://edtechbooks.org/-sUj] and support quality education that is equitable, inclusive, open and participatory.

In his summing up at the end of the congress UNESCO Assistant Director for Education Qian Tang said

> "to meet the education challenges, we can't use the traditional way. In remote and developing areas, particularly for girls and women, OER are a crucial, crucial means to reach SDGs. OER are the key."

One of the key characteristics of open educational resources is that they are either in the public domain or they are released under an open licence and generally that means a Creative Commons licence.

However not all Creative Commons licences are equal and only resources that are licensed for adaptation and reuse can really be considered as OER. At the recent OER World Congress, Creative Commons CEO Ryan Merkley emphasized that free is not the most important thing about OER, it's the permission to modify and adapt resources that is most important, because that is what allows us to adapt educational resources to allow us to meet the specific and diverse needs of our learners.

At the University of Edinburgh we believe that open educational resources are strongly in line with our institutional mission to provide the highest quality learning and teaching environment for the greater wellbeing of our students, and to make a significant, sustainable and socially responsible contribution to Scotland, the UK and the world.

We have a vision for OER that builds on our world-class education and research collections, traditions of the Scottish Enlightenment and the university's civic mission. And this vision is backed up by an OER Policy, which encourages staff and students to use, create and publish OERs to enhance the quality of the student experience.

Open.Ed is our OER portal where you can access open educational

resources produced by staff and students across the university, including teaching materials, video lectures, film content, games, 3 models and much more. Rather than investing in a proprietary repository, Open.Ed is supported by WordPress and we're currently in the process of implementing search and aggregation functionality based on the Solvonauts open source OER search engine developed by pgogy.

# Open Textbooks

I mentioned earlier that the prevalent form of OER in North America is open textbooks. The reason being that North American education systems tend to be centred heavily around single use textbooks. According to SPARC, the Scholarly Publishing and Academic Resources Coalition, the price of textbooks has increased at more than three times the rate of inflation for decades, resulting in college students face steep price tags of up $200 per book. These costs can be a considerable barrier in terms of access to education and also result in schools and colleges using books that are years out of date because they are too expensive to replace. SPARC is one of a number of organisations that campaigns for the adoption of open texbooks in the US, and they have recently been instrumental in persuading U.S. Congress to fund a $5 million open textbook grant program [https://edtechbooks.org/-IoM].

Although we don't rely quite so heavily on single course textbooks here in the UK, textbook costs can still be significant. The UK OpenTextbooks project is a partnership between the OER Hub at the Open University, OpenStax and The Open Textbook Network which aims to explore the viability of introducing open textbooks in UK higher education.

While open textbooks offer many benefits when used as is, including cost savings and access to affordable high quality learning materials, the benefits of open textbooks increase significantly when you

combine them with open source software.   One initiative that is doing just that is BC Campus in Canada. In 2012 BC Campus received a $1m grant from the British Columbia government to  provide free and open textbooks for the top 40 course subject areas in post secondary education.  The project collected existing open textbooks from OpenStax and the Open Textbooks Network, and adopted PressBooks, the open source book content management system, as a faculty friendly authoring platform for new open books.  Because of the open extensible nature of the software, BC Campus have been able to add new features to PressBooks, such as annotation and new import and export routines and these are contributed back to the community as open source code.  In the words of BC Campus' Clint Lalonde:

> "PressBooks is easy for most faculty to use because many are familiar with WordPress. Faculty feel empowered and have the skills needed to adapt open textbooks to fit their specific learning needs. Faculty make their textbook reflect their pedagogy instead of the reverse."

## MOOCs

Moving on now to MOOCs....

MOOCs, or Massive Open Online Courses, occupy a somewhat contested space in the Open Knowledge landscape. The term was originally coined in 2008 to describe a number of online courses, characterised by social connectivist and constructivist pedagogies, being run by the Universities of Athabasca and Prince Edward Island in Canada.  These innovative courses focused on knowledge creation and generation and encourage learners to play a central role in shaping their learning experiences.   From 2010 onwards however a number of primarily venture-capital funded commercial MOOC providers, including Udacity, EdX, Coursera and FutureLearn, entered

the market with promises to disrupt education.  The launch of these companies was accompanied by a huge amount of hype with Sebastian Thrun, founder of Udacity predicting that in 50 years time there would be only ten higher education institutions in the world, and of course, Udacity had a good chance of being one of them.  Udacity now focuses primarily on vocational courses rather than the Higher Education sector.

Although MOOCs did not disrupt Higher Education, they did fill an interesting niche in the education market, and I use that term advisedly in this instance, and commercial MOOC providers are still thriving.  My problem with MOOCs is that they are not open in any real sense of the word.  The word "open" in MOOC simply means that anyone can join a course free of charge, regardless of qualifications. The platforms themselves are proprietary, and even if course content is open licensed it is often difficult to extricate from the platform. Most MOOCs are free as in beer rather than free as in speech and even this is increasingly debatable as many now charge for premium features such as certification and continued access to course materials.  Of course one solution to this is to ensure all MOOC content is also available off these commercial platforms and available under open licence, and that's the road we have gone down at Edinburgh.  The University runs MOOCs on FutureLearn, Coursera and EdX platforms and has made a considerable investment in producing high quality content for use in these courses.  In order to ensure this content is accessible and reusable for both our own students and colleagues and others outwith the University we make sure is can be downloaded under open license from our multi media asset management system, Media Hopper Create.

The original social constructionist MOOCs haven't gone away though, and there are a wide range of creative and innovative online courses running all over the world now which truly embody openness and which are often supported by free and open source software.  One nice example is 23 Things for Digital Knowledge, an award winning,

open online course run by my colleague Charlie Farley at the University of Edinburgh. 23 Things is designed to encourage digital literacy by exposing learners to a wide range of digital tools for personal and professional development.  The course runs on WordPress, all the content and materials are Creative Commons licensed and the University actively encourages others to take and adapt the course.   Another amazing example is DS106 an anarchic digital storytelling course from the University of Mary Washington which has been running since 2010.  The instigator of ds106, Jim Groom, is also the founder of Reclaim Hosting,   a company that builds on the principles of the open web, and which provides teachers, learners and institutions with an easy way to own and control their own web domains and host open source applications.  And I think we've all seen plenty of evidence recently as to why it's so important to have the ability to control our own web domains and the data that our presence on the web generates.

## Open Access Scholarly Works

Open Access Scholarly Works clearly occupy an important place in the Open Knowledge landscape.  Since the publication of the 2012 Finch report on Expanding Access to Published Research Findings, and Research Councils UK's, policy on Open Access, universities have been required to make the outputs of their publicly funded research freely and openly available through open access journals, repositories and other channels.

Free and open access to the outputs of publicly funded research provides important social and economic benefits as well as being in line with the Government's commitment to transparency and open data, and contributing to the global open movement.  In addition to making research outputs freely accessible to all, Open Access allows research to be disseminated quickly and widely, the research process to operate more efficiently, and has the potential to increase use and

understanding of research by business, government, charities and the wider public.

However it is not always easy for those outwith academia to know how to access these outputs, even though they are freely and openly available. And within academia there is something of a divide between Open Access scholarly works and Open Educational Resources with the former tending to be managed by the Library within dedicated Open Access repositories, while the later, if they are managed at all, tend to be dealt with on an ad hoc basis by learning technology services. As a result of the Research Council mandates, a whole repository infrastructure has been developed to facilitate the management and dissemination of Open Access scholarly works, while OER have often been somewhat neglected in comparison. A few initiatives have sought to accommodate scholarly works and teaching and learning resources in the same repository, but these have not been particularly successful as the resources themselves and the work flows they are part of are very different. This is unfortunate as Open Access scholarly works can clearly be of huge benefit to teaching and learning, and at the same time, OER can be harnessed to promote the outputs of open research.

One initiative at the University of Edinburgh that uses OER to help disseminate Open Access research outputs beyond the Academy, and to foster technology transfer and innovation, is Innovating with Open Knowledge. This project has created a series of open licensed video interviews, case studies and learning resources aimed at creative individuals, private researchers, entrepreneurs and small to medium enterprises to provide guidance on how to find and access the open outputs of Higher Education. The resources focus on developing digital and data literacy skills and search strategies and feature case study interviews with creative individuals, entrepreneurs and experts, engaging with the University of Edinburgh's world class research outputs. Among the case studies are a series of interviews about finding and using Open Source Software with Scott Wilson of the

independent, non-advocacy service OSS-Watch.

# Open Data

Open data can be defined as data and content that can be freely used, modified, and shared by anyone for any purpose.

Although there is no UK policy that mandates the release of open research data, there is a Concordat on Open Research Data, which was originally published by HEFCE, Research Council's UK, Universities UK and Wellcome in 2016. The Concordat recognises that research data should, wherever possible, be made openly available for use by others in a manner consistent with relevant legal, ethical, disciplinary and regulatory frameworks and norms, and with due regard to the cost involved.

In a parallel development, the UK Government has also made considerable efforts to open up its data for people to re-use through data.gov.uk, in the belief open government data can help governments be more transparent, and support business, academics and the third sector. This commitment is supported by the Open Government Partnership, an international initiative launched in 2011 that aims to help more governments become more transparent, more accountable, and more responsive to their own citizens, with the ultimate goal of improving the quality of governance, as well as the quality of services that citizens receive.

Open data can also make a significant contribution to social initiatives and humanitarian projects. One such example is the Humanitarian Open Street Map Team, who undertake a wide range of mapping projects to support disaster relief, socio-economic development, and geographic information for humanitarian aid. For example in 2010 when Haiti was hit by a devastating earthquake, the Open Street Map Community immediately mobilized; within 48 hours, high resolution post-earthquake imagery was made available, and in the first month

following the disaster 600 people contributed to Haiti's open street maps.  Similarly, when Sri Lanka suffered from severe flooding in 2016, the governments' Disaster Management Centre turned to the Humanitarian Open Street Map Team to urgently start tracing detailed building and housing unit information.

Although open data, open access, and open education have all made significant progress in recent years, there has been a tendency for these domains to progress in parallel with little sign of convergence and as a result there is a tendency to end up with "open silos".  In the UK, research mandates and concordats may have had a positive impact on open access and open research data, however the connection has yet to be made to open education. While the benefits of open data are widely recognised in relation to scientific and scholarly research, open data also has considerable value in the context of teaching and learning.  Many governments, non-governmental organisations and research centres are already producing large volumes of open data sets that have the potential to be used as open educational resources. Scenario based learning involving messy, real world data sets can help students to develop critical data literacy and analytical skills. Using open data introduces an invaluable element of realism and complexity as the data is flawed and inconsistent.  Students come up against challenges that it would be difficult to reproduce artificially and, as a result, they learn to deal with the kind of problems they will encounter in the real world.  And perhaps more importantly, working with real world open data from real governments, communities and research projects, doesn't just help students to develop data literacy skills, it also helps to develop citizenship, social responsibility and community engagement.

In an influential report by the [Open Knowledge Open Education Working Group [https://education.okfn.org/]](https://education.okfn.org/), Javiera Atenas and Leo Havemann noted that

Educators who make use of Open Data in teaching and learning

encourage students to think as researchers, as journalists, as scientists, and as policy makers and activists. They also provide a meaningful context for gaining experience in research workflows and processes, as well as learning good practices in data management, analysis and reporting.

However in a presentation at the Open Education Global conference in Delft just yesterday, Leo also reminded us that open data *alone* does not promote social justice. Quoting Johnston, Leo noted that unless people know how to access and use the data effectively, they can become mere objects of study, marginalized and excluded from participating in decisions about their own society.

# Wikipedia

Of course no map of the Open Knowledge domain would be complete without Wikpedia and its associated projects including  Wiki Data, Wikimedia Commons, Wiki Source etc.

Wikipedia itself is of course built on OSS, with the encyclopedia, Wikimedia Commons and Wictionary all being supported by MediaWiki open-source wiki software.  In addition, over 1000 automated and semi-automated bots [https://edtechbooks.org/-ISD] and other tools have been developed to assist with Wikimedia editing.  There are also fun tools such as Histropedia which uses the free Histropedia JS software and Wikidata to generate dynamic timelines of everything.

Here in the UK we have our own Wikimedia chapter, Wikimedia UK, which works in partnership with organisations from the cultural and education sectors and beyond in order to unlock content, remove barriers to knowledge, develop new ways of engaging with the public and enable learners to benefit from the educational potential of the Wikimedia projects. Wikimedia UK also supports a number of Wikimedians in Residence who work with a range of education and

public heritage organisations throughout the country.  In Scotland we have Wikimedians in Residence at the University of Edinburgh, the Scottish Library and Information Council, and a Gaelic Wikimedian at the National Library of Scotland.  A new Wikimedia Scotland Coordinator, Sara Thomas, has also just been appointed and in Wales there is a National Wikimedian, Jason Evans,  based at the National Library of Wales.

At the University of Edinburgh we believe that contributing to the global pool of Open Knowledge  through Wikimedia is squarely in line with our institutional mission; the creation, dissemination and curation of knowledge, and we also believe that Wikipedia is a valuable learning tool to develop a wide range of digital and information literacy skills and capabilities at all levels across the curriculum. Our Wikimedian in Residence [https://edtechbooks.org/-Jzv], Ewan McAndrew, works to embed open knowledge in the curriculum, through skills training sessions, editathons, Wikipedia in the classroom initiatives and Wikidata projects, in order to increase the quantity and quality of open knowledge and enhance digital literacy.

There is no question that Wikipedia is an invaluable source of open knowledge, however it is not without bias.  The Wikimedia Foundation's vision may be  "a world in which every single human being can freely share in the sum of all knowledge", however the coverage of subject matter on Wikipedia is neither uniform nor balanced and many topics and areas are underrepresented, particularly those relating to women, people of colour and minority groups.  For example, on English language Wikipedia only about 17% of biographical articles are about women, and the number of female editors is between 10 & 14%. Hopefully you don't need me to tell you why this lack of diversity and inclusivity is a serious problem. However it is a problem that is being addressed by the Foundation itself, by projects such as Wikiwomen in Red, and by Wikimedians and Wikimedians in Residence across the world.

At the University of Edinburgh an important aspect of our Wikimedian in Residence's work is to help improve the coverage and esteem of Wikipedia articles about women, and underrepresented minorities, in science, art, technology, and history, and to redress the gender imbalance of contributors by encouraging more women to become Wikimedia editors. And I'm very pleased to say that over the last year 65% of participants at our editathons were women. There has also been phenomenal progress in Wales, and in 2016, Welsh Wikipedia became the biggest language Wikipedia in the world to achieve gender balance.

# Inclusion, Exclusion and Structural Inequality

Wikipedia's well known problem with gender balance is a notable example of systemic bias. Wikimedia is an open community that anyone can contribute to in theory, however in reality there are many factors that prevent certain groups from contributing. In the case of women editors, former Wikimedia Foundation executive director Sue Gardner identified a range of systemic factors that discourage women from contributing to the encyclopedia, including lack of time, lack of self confidence, aversion to conflict, and the misogynistic atmosphere of the community. In addition, the very principles which underpin the encyclopedia discriminate against marginalised groups. Wikipedia is based on notability and citation, yet in fields where women and people of colour have been traditionally barred, or their contribution has been neglected or elided, it is much harder to find reputable citations that are critical for proving notability. Any article that is deemed to be inadequately cited runs the risk of rapid deletion for lack of notability, thus replicating real world power imbalances, privileges and inequalities.

Wikimedia is not the only open community that suffers from issues of systemic bias and structural inequality. In a paper on Open Initiatives

for Decolonising the Curriculum,  in the forthcoming book Decolonising the University edited by Gurminder K Bhramba, open source software developer Pat Lockley notes that universities with the highest percentages of black staff are those which spend the least – in many cases, nothing – on open access article processing charges.  And he goes on to ask whether Open Access really is broadening and diversifying academia, or merely reinforcing the existing system.

When we look at MOOCs supported on commercial platforms, the situation is arguably worse. Far from democratizing higher education and reaching out to disadvantaged groups, numerous studies have shown that the majority of MOOC enrolments tend to be young, male, employed, and from the developed countries of the global north. Furthermore, the majority of MOOC students already have some kind of postgraduate qualification.  An important survey undertaken in 2013 by the University of Pennsylvania of 24 courses offered by through Coursera found that 80% of the 34,000 students questioned already had a degree and 44% had also undertaken some form of post graduate education.  The figures were even more stark outwith the US, with 80% of students from Brazil, China, India, Russia, and South Africa coming from the wealthiest and best educated 6% of the population.  Furthermore, these students were much more likely to be male than female. Gayle Christensen, one of the authors of the report noted that MOOCs are failing to reach they students they had intended to empower and instead they are giving more to those who already have a lot.

Similarly, in its 2017 [survey \[https://edtechbooks.org/-mmm\]](https://edtechbooks.org/-mmm) on open source software development practices and communities, Github reported huge gaps in representation and concluded that the gender imbalance in open source remains profound and that open source contributors don't yet reflect the broad audience of users. From a random sample of 5,500 respondents 95% were men; just 3% were women and 1% are non-binary.

And there are many other examples of similar structural inequalities in open spaces and communities. We all need to be aware of the fact that open does not necessarily mean accessible. Open spaces and communities are not without their hierarchies, their norms and power structures. And we need to look around our own open communities and ask ourselves who is included and who is excluded, who is present and who is absent, and we need to ask ourselves why. Because nine times out of ten, if certain groups of people are absent or excluded from spaces, communities or domains, it is not a result of preference, ability, or aptitude, it is a result of structural inequality, and in many cases it is the result of multiple intersecting inequalities. And if you're interested in how such inequalities have impacted the development of the commuting industry in the UK, I can highly recommend this book by Marie Hicks *Programmed Inequality How Britain Discarded Women Technologists and Lost Its Edge In Computing.*

Far too often technology and technology communities replicate the structural inequalities that permeate our society. And I think we're all aware of the very pressing current debate about how algorithms encode both conscious and unconscious bias.

So how do we change this? Well half the battle is recognising that there is a problem in the first place, taking steps to understand that problem, and then doing the hard work to effect change. And believe me, it is hard work, these things won't change over night, but they do have to change. Those of us who are already inside these open spaces and communities need to take positive action to make our communities, not just open, but accessible and inclusive. And to do that, to borrow a phrase from another group who campaigned for radical change and inclusion at the turn of the last century, the Suffragettes, we need Deeds not Words.

In the Guerilla Open Access Manifesto Aaron Shwartz said

> "Those with access to these resources — students,

librarians, scientists — you have been given a privilege. You get to feed at this banquet of knowledge while the rest of the world is locked out. But you need not — indeed, morally, you cannot — keep this privilege for yourselves. You have a duty to share it with the world."

The same is equally true of Open Knowledge and open communities. We have been given the privilege to participate, and we can not keep that privilege to ourselves. We need to identify the barriers that prevent some people from participating, and we need to do what we can to remove these systemic obstructions. And to me this is what openness is really about, the removal of systemic barriers and structural inequalities to enable everyone to participate equitably, and on their own terms. We have a duty to ensure that our own open communities really are just that, open to everyone, regardless of race and gender, because that's how we ensure that we really can cross the imaginary boundaries of the Open Knowledge landscape.

Chris Lamb began his keynote yesterday with three stories, and I want to end my keynote with a story too, one which I believe demonstrates why it's so important for all those of us who work in the broad domain of Open Knowledge to come together to break down the barriers that divide us.

This is Bassel Khartabil Safadi a Syrian open source software developer, open knowledge advocate, Wikipedia editor and project lead for Creative Commons Syria.

Bassel was also a contributor to the New Palmyra Project; a digital archaeology and open data initiative that aims to create a virtual reconstruction of the ancient city of Palmyra, large parts of which have been destroyed by ISIS during the Syrian civil war.

As a result of his open knowledge activities, Bassel Khartabil was detained by the Syrian government in 2012 and held in Adra Prison in

Damascus for 3 years. In October 2015 his name was removed from the prison register and, despite calls from numerous human rights organisations, his whereabouts remained unknown.

In order to raise awareness of Bassel's disappearance a group of open practitioners came together to write the open e-book The Cost of Freedom: A Collective Inquiry which includes essays, poems, personal reflections and polemics from a wide range of international open knowledge and free culture advocates.  My contribution to the book was a short piece called The Open World which touches on the personal risks, costs and benefits of openness.

Sadly in August last year news was released that Bassel had been executed by the Syrian regime in 2015.  In order to honor his memory and to support projects in the spirit of his work, Creative Commons has established the Bassel Khartabil Memorial Fund which provides grants to advance collaboration, community building, and leadership development in the open communities of the Arab world. The fund also supports the digital preservation, sharing, and remix of creative works and historical artifacts.

Just a few weeks ago, at the Creative Commons summit in Toronto, the first Bassel Khartabil Free Culture Fellowship and Memorial Fund recipients were announced, and you can find out more about those recipients and their projects here https://edtechbooks.org/-aYc

Before he was executed, Bassel wrote from Adra prison

> "Of my experience spending three years in jail so far for writing open source code (mainly) I can tell how much authoritarian regimes feel the danger of technology on their continuity, and they should be afraid of that. As code is much more than tools, it's education that opens youth minds and moves the nations forward. Who can stop that? No one…. As long as you people are out doing

what you are doing, my soul is free. Jail is only a
temporary physical limitation."

The fate of Bassel Khartabil is a sobering but inspiring reminder of
why Open Knowledge is so powerful and so necessary and why we
must all work together to achieve a more open, inclusive and
equitable society.

## Suggested Citation

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R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from
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# Planning to Share Versus Just Sharing

## Scott Leslie

### Editor's Note

This was originally posted to [Scott Leslie's blog](https://edtechbooks.org/-xvor) on November 8, 2008.

(*This is a long post, born out of years of frustration with ineffective institutional collaborations. If you only want the highlights, here they are: grow your network by sharing, not planning to share or deciding who to share with; the tech doesn't determine the sharing – if you want to share, you will; weave your network by sharing what you can, and they will share what they can – people won't share [without a **lot** of added incentives] stuff that's not easy or compelling for them to share. Create virtuous cycles that amplify network effects. Given the right 'set,' simple tech is all they need to get started.*)

I have been asked to participate in many projects over the years that start once a bunch of departments, institutions or organizations notice that they have a lot in common with others and decide that it would be a good idea to collaborate, to share "best practices" or "data" or whatever. It always 'sounds' like a good idea. I am big on sharing and have benefited much over the years from stuff I've shared and stuff shared with me by my peers.

But inevitably, with a very few exceptions, these projects spend an

enormous amount of time defining what is to be shared, figuring out how to share it, setting up the mechanisms to share it, and then…not really sharing much. Or sharing once but costing so much time, effort or money that they do not get sustained. Does this sound familiar to anyone else? I don't feel like this phenomenon is isolated to me or somehow occurs because of my own personal ineptitude, but you never know.

Now I contrast that with the learning networks which I inhabit, and in which every single day I share my learning and have knowledge and learning shared back with me. I know it works. I literally don't think I could do my job any longer without it – the pace of change is too rapid, the number of developments I need to follow and master too great, and without my network I would drown. But I am not drowning, indeed I feel regularly that I am enjoying surfing these waves and glance over to see other surfers right there beside me, silly grins on all of our faces. So it feels to me like it's working, like we ARE sharing, and thriving because of it.

So I began to wonder, why does one the (institutional-driven/focused) approach continually fail while my personal learning network continues to thrive. Here are some thoughts on why:

# We grow our network by sharing, they start their network by setting up inital agreements

We just finished a workshop this week on "Weaving your own PLE [https://edtechbooks.org/-LIN]." While part of this was definitely an effort at straight tech training, that in my mind was actually the minor part – the whole reason many of us are so attracted to blogs, microblogs, social media, etc., in the first place is that they are SIMPLE to use and don't require a lot of training.

No, in my mind, a lot of the message was helping newcomers to get over the hump of "well, I created a blog/joined this service/etc, but how come no one is reading it?" A lot of what we discussed were the practices by which you can grow your connections, and by and large these involve some form of sharing: writing interesting posts (sharing your insight and learning); writing comments (sharing feedback/conversation); publishing work in open spaces (and pointing to it). Your network will grow. It may take a little time, but it *will* grow. The other thing we emphasized was a line I think I stole from [Dave Winer [http://www.scripting.com/]](http://www.scripting.com/) – "It doesn't matter if there are only 2 people reading your blog as long as they are the *right* 2 people." The notion that if you grow your network organically, don't force it, it will settle, over time, on just what you need.

Contrast this with these formal initiatives to network "organizations." In my experience, these start with meetings in which people first agree that sharing is a good idea, and then follow up meetings to decide what they might share, then, somewhere **way** down the line, some sharing *might* happen. The whole time, some of the parts of a network are already present and could have just started sharing what they have, heck they could have started before ever meeting, even WITHOUT ever meeting, but this never happens. (I say part, because if it's a network it will grow to include many others not in any intial group.)

# We share what we share, they want to share what they often don't have (or even really want)

Much of the sharing that happens in my learning network happens through seredipity. People publish a blog post, bookmark a delicious link, etc, as a normal part of their own workflow,and whether through syndication or the "All seeing eye of Google," it comes my way, as

John Krutsch [https://edtechbooks.org/-uLX] would say, "Right On Time." Or I ask the network, through my blog or twitter, or sometimes directly, for help with a question or problem: sometimes the answer comes in seconds, because someone's already worked it out; sometimes in minutes, maybe because a slight twist needs to be given to existing work; sometimes in days or weeks, when it tweaks someone else's mind as much as mine and they do the work because it seems worhtwhile to them and they can do it; sometimes it comes in months or years, because it's a big problem. But so far, it's never not come, eventually. Our sharing is "good enough," not perfect; optimal, not ideal. We don't build our *entire* houses on this single foundation, but it sure helps get a lot of structure built quickly on many an occassion.

Contrast this with the formal approach. In my experience, a ton of time goes into defining ahead of time what is to be shared. Often with little thought to whether it's actually something that is easy for them to share. And always, because its done ahead of time, with the **assumption** that it will be value, not because someone is asking for it, right then, with a burning need. Maybe I'm being too harsh, but my experience over a decade consulting and working on these kinds of projects is that I'm not. Someone always thinks that defining these terms ahead of time is a good idea. And my experience is that you then get people not sharing very much, because to do so takes extra effort, and that what does get shared doesn't actually get used, because despite what they said while they were sitting in the requirements gathering sessions, they didn't actually know what the compelling need was, it just sounded like a good idea at the time.

By the way, if my writing is making it seem that I haven't done this myself, many times, that's just wrong. For the longest time, it seemed like a good idea to me too.

# We share with people, they share with "Institutions"

I have never spoken to "an institution." I would be scared if one started to speak to me. But I've spoken and shared with many *people* in institutions. Many *people* use stuff I have shared. And usually, in my experience, its people who directly, not through some intermediary, have a need.

The institutional approach, in my experience, is driven by people who will end up not being the ones doing the actual sharing nor producing what is to be shared. They might have the need, but they are acting on behalf of some larger entity. The need ends up getting diffused over all the people involved ultimately in sharing, and the people who go to the meetings, form the relationships, have *the actual network* end up delegating the work to people who are excluded from the network, acting as proxies, instead of forming their *own* network. There is nothing stopping them from doing so except the need being defined at the top of the org but driven to the bottom, instead of the need being defined (differently) at each level of the organization and at each level personal networks being built (and if this were happening, the whole notion of "levels" would no doubt start to get a bit woobly.)

# We develop multiple (informal) channels while they focus on a single official mechanism

I blog. I use twitter. I use delicious. I use flickr. I use facebook (when I have to.) I use drop.io. I use slideshare. I use scribd. I use google docs. I use... the list goes on and on. Many of the ones above are ones that have persisted in my practice for some time now, while there are others that come and go. The point is, though, I have yet to come across a situation where someone in my network asked for help

(through any of these channels, or indeed simply through email) and I (or someone in the network) did not find SOME way to share what they needed with them. More often than not, we'd shared it **ahead of time** and it's Google finding it, and typically always things are shared *in a way that allowed everyone else simply to benefit from that act of sharing.* The technology is NOT the problem. Given a compelling need to connect, people will find a way, be it through smoke signals, Morse code or Usenet news groups.

Contrast this with these formal initiatives to network "organizations" – in my experience, much time goes into finding the right **single** "platform" to collaborate **in** (and somehow it always ends up to blame – too clunky, too this, too that.) And because typically the needs for the platform have been defined by the collective's/collaboration's needs, and not each of the individual users/institutions, what results is a central "bucket" that people are reluctant to contribute to, that is secondary to their 'normal' workflow, and that results in at least some of the motivation (of getting some credit, because even those of us who give things away still like to enjoy some recognition) being diminshed. And again, in my experience, in not a whole lot of sharing going on.

## What to do if you are stuck having to facilitate sharing amongst a large group of institutions?

So hopefully it's clear at this point that I am a big believer in everyone, no matter what their role in an organization, developing their own personal learning network/environment. But the reality is, you and I are going to get asked for years to come to help groups who say they want to share. So what do we do. Well, if you can, my advice is to provision as little tech as possible and urge an approach that focuses on the sharing and the network creation *first*. But if you must

provide a single "platform," my advice is to focus on providing one with these three simple pieces:

- a simple way to find out who else is out there (profile, even just a directory)
- some simple channels to communicate: email lists/addresses, threaded discussions
- a simple way to publish content

That's it. Maybe a synchronous tool. If the need and desire to share is real, these basic means (which really, they already have access to, but sometimes you need to build them a new one, after all we all like to feel special sometimes) are ALL THEY NEED TO SHARE. You see, at the end of the day, that's all any of us, who started building our personal learning networks with, say, blogs, actually had. And it worked. It works every day. – *SWL*

## Suggested Citation

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# The Access Compromise and the 5th R

## David Wiley

**Editor's Note**

This was originally posted to [David Wiley's blog \[https://edtechbooks.org/-Umq\]](https://edtechbooks.org/-Umq) on March 5, 2014.

It's been [seven years \[https://edtechbooks.org/-ktb\]](https://edtechbooks.org/-ktb) since I introduced the 4Rs framework for thinking about the bundle of permissions that define an open educational resource, or OER. The framework of permitted activities – reuse, revise, remix, and redistribute – has gained some traction in the field, and I'm happy that people have found it useful. The 4Rs play a critical role in my own thinking about OER, and my operational definition of OER now includes two main criteria: (1) free and unfettered access to the resource, and (2) whatever copyright permissions are necessary for users to engage in the 4R activities. But while the framework has served the field well – and has shaped my own thinking, too – I believe the time has come to expand it.

A year ago I wrote a piece on adaptive instructional systems, and how publishers are moving away from selling content to leasing access to services as a way of responding to the threat to their business models posed by open educational resources. I called it an "attack on personal property":

> When you own a copy, the publisher completely loses control over it. When you subscribe to content through a digital service (like an adaptive learning service), the publisher achieves complete and perfect control over you and your use of their content.

Over the last year my thinking about the attack on personal property has slowly expanded and generalized to include not just publishers, but our own campuses as well. Last month I wrote about "[disappearing ink [https://edtechbooks.org/-DID]](https://edtechbooks.org/-DID)," a way of characterizing the way that post-secondary institutions are trying to increase the affordability of required textbooks by decreasing student access to them. Specifically, campuses have initiated a number of programs like textbook buyback, textbook rental, digital subscription programs, and DRM-laden ebook programs, each of which results in students completely losing access to their required textbooks at the end of term. The more I've pondered the disappearing ink strategy, the more it has bothered me. I can understand commercial publishers acting in a way that favors business over learning, but not our campuses.

## The Access Compromise

Earlier this week I had the opportunity to speak to a group of librarians at the annual SPARC conference. As I prepared for that talk, and after a great conversation with Nicole Allen of SPARC, I began thinking about this broader problem from the library perspective. I slowly came to see that libraries represent a compromise made centuries ago under a different set of circumstances.

There was a time before the invention of the printing press when books were unfathomably expensive – costing a full year's wages or more for a single volume. In this historical context where ownership

of books by normal people was utterly impossible – unimaginable, even – we compromised. We said, let's gather books together in a single place and provide *access* to them. That access was limited to the privileged at first, but over time we have slowly but surely worked to democratize access to books through libraries.

Foregoing the idea of ownership and instead promoting the idea of access made sense in a world where books were incredibly scarce and new copies were too expensive for anyone but royalty to commission. However, in a world where books, journal articles, and other educational resources can be copied and distributed instantly and at essentially no cost, the "access compromise" doesn't seem like such a bargain anymore.

Unfortunately, in the higher education textbook market we see this historical story playing in reverse. Books that were once affordable enough to be owned by students have climbed in price to a point where we find our own institutions trying to persuade students to make the access compromise. That should have been the trigger. It's past time to turn the higher education textbook conversation away from access and back to personal ownership and individual control of learning content.

## The 5th R

Which brings us back to OER. There is no possible short- or medium-term future in which commercial publishers do what is economically and technically necessary to make it possible for students to actually own their learning content. This means that any advances toward ownership will have to come from the field of open education.

Unfortunately, we the field of open education have completely bought into the access compromise. There's not a single definition of OER I'm aware of – including my own – that speaks directly to issues of ownership. Yes, ownership is sort of implied in the "reuse" R, and is

legally permitted by open licenses. But for all of their willingness to share *access* to open educational resources, how many OER publishers go out of their way to make it easy for you to grab a copy of their OER that you can own and control forever? How many OER publishers enable access but go out of their way to frustrate copying? How many more OER publishers seem to have never given a second thought to users wanting to own copies, seeing no need to offer anything beyond access?

This leads me to feel that the time has come to add a 5th R to my framework – "retain." Hopefully this 5th R will elevate the ownership conversation in the open education community, allowing us to talk about it explicitly and begin the work necessary to support and enable it directly.

# The 5Rs of Openness

– Retain – the right to make, own, and control copies of the content
– Reuse – the right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)
– Revise – the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
– Remix – the right to combine the original or revised content with other open content to create something new (e.g., incorporate the content into a mashup)
– Redistribute – the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

## Suggested Citation

*Wiley, D. (2019). The Access Compromise and the 5th R. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/fifth_R*

# Open Textbooks? UGH.

## Robin DeRosa

### Editor's Note

This was originally posted to [Robin DeRosa's blog](https://edtechbooks.org/-HFz) on November 20, 2015.



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I am writing this from [OpenEd15 [https://edtechbooks.org/-enZ]](https://edtechbooks.org/-enZ) in Vancouver.  And this is a call to my like-minded compatriots spread across our conference rooms here, but also to the tweeps and digitalactivists I've worked with online over the last two years.  After

three days of sessions focused on reducing textbook costs, creating all-OER degree programs, generating data analytics for OER, and producing open textbooks in just four days, I am ready for some good, old-school mutiny. It's a loving and grateful mutiny, since this conference energizes, inspires, and provokes me. But nonetheless, I'm ready to fling some ideas overboard and see this ship steer in a new direction.
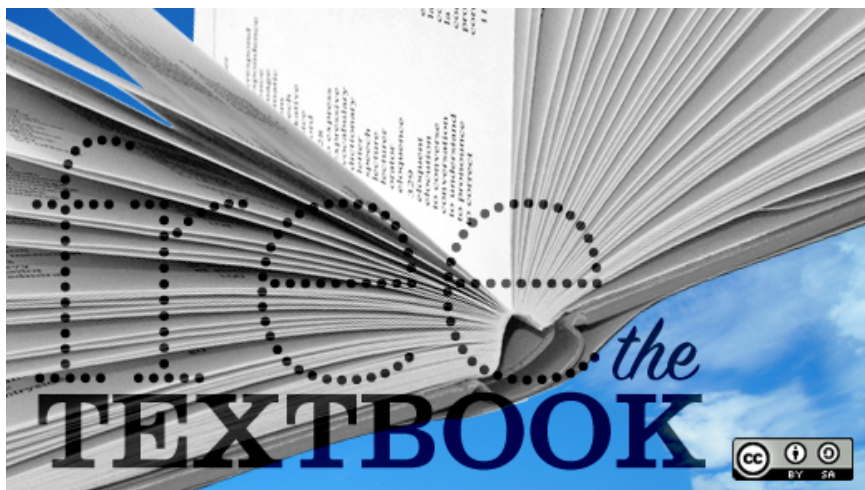


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Don't get me wrong. I am here in Vancouver because I am deeply committed to reducing textbook costs. Wait. Scratch that. I don't actually care about textbook costs. I care about access, broadly conceived: access to ideas, access to pathways to contribute to knowledge, access to research so that we can collaborate and build. Fundamentally, I don't want to be part of a movement that is focused on replacing static, over-priced textbooks with static, free textbooks. Textbooks, if we don't re-theorize them, have generally (just) been repositories for the master's ideas. Students absorb textbook content and achieve "mastery." (Call it "competency," whatever.) Making textbooks more affordable is not high on my list of things to do.

Here's what I want OpenEd to help me figure out how to do instead of lowering textbook costs:

1. Engage learners in contributing to their learning materials so that knowledge becomes a community endeavor rather than a commodity that needs to be made accessible. To that end, let's stop fetishizing the textbook, which is at best a low-bar pedagogical tool for transmitting information. OER is better than that.

2. Make open licenses the focus of our advocacy for learners, teachers, scholars, which means explaining how the open license enables us to do more with the ideas that we ourselves as learners, teachers, scholars are generating.  It's not the open textbook, it's the open *license* that matters here.

3. Consider public funding models for open education (OER, open pedagogy, open access). "Philanthropy" is the wrong word for a model in which the public pays itself for what it needs and can generate on its own. And I am not buying that private, for-profit companies– while capable of being good community partners– are the only way we can build a public infrastructure for publishing and organizing and economically supporting open work.

4. Build a better mission statement for why we work in the open. I took a stab here [https://edtechbooks.org/-Zbk], but it was just one tiny specific start. I need help explaining this why. We need the why before we can develop the what (who cares about our open tools and apps and platforms? that's the easy stuff, so let's do it second).  We need the *why* before we can assess whether or not we achieved success.  Will working in the open serve a social justice vision? improve retention and enrollment? increase interdisciplinary collaboration and improve the quality of our scholarship? Yes? Why? How? And what will it look like if our vision succeeds?

I don't think that advocating for a pedagogical approach to OER

makes me radical or an outlier.  But my sense is that the movement is cohering around the "gateway" of open textbook adoption.  But don't worry, I am told, once we hook 'em, we can slip in the pedagogy!

**No. No!**



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That hook is going to puncture our foundational beliefs about the power of open.

I am calling for a (radical?) pedagogy caucus, a core, self-identified group committed to placing pedagogy at the center of the OpenEd movement. I am going to stop apologizing for my sense that textbooks are the wrong way to pitch open.

Open doesn't need a pitch because open is not for sale.

## Suggested Citation

*DeRosa, R. (2019). Open Textbooks? UGH.. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/ugh*

# My Open Textbook: Pedagogy and Practice

## Robin DeRosa

**Editor's Note**

This was originally posted to [Robin DeRosa's blog \[https://edtechbooks.org/-re\]](https://edtechbooks.org/-re) on May 18, 2016.

I've spent some time [talking about open pedagogy \[https://edtechbooks.org/-jsD\]](https://edtechbooks.org/-jsD)at several universities this Spring, and in each of those presentations and workshops, I have usually mentioned *[The Open Anthology of Earlier American Literature, \[https://edtechbooks.org/-pkk\]](https://edtechbooks.org/-pkk)* an OER anthology that my students and I produced last year for an American literature survey course I taught.  When I talk about the anthology, it's usually to make a point about open pedagogy.  I began the project with the simple desire to save my students about $85 US, which is how much they were (ostensibly) paying for the *[Heath Anthology of American Literature Volume A \[https://edtechbooks.org/-RQk\]](https://edtechbooks.org/-RQk)*.  Most of the actual texts in the Heath were [public domain \[https://edtechbooks.org/-MZx\]](https://edtechbooks.org/-MZx) texts, freely available and not under any copyright restrictions.  As the Heath produced new editions (of literature from roughly 1400-1800!), forcing students to buy new textbooks or be irritatingly out of sync with page numbers, and as students turned to rental markets that necessitated them giving their books back at the end of the semester, I began to look in earnest for an alternative.

I launched the open textbook project over a summer, and because I teach at a public university where I had no easy access to graduate assistants or funding, I hired a bunch of undergrad students and recent alums, and paid them out of my own pocket to assist me. Turns out, most of them were willing to work for free (I didn't let them, though what I paid was low because it was all I could spare), and turns out the whole endeavor of building the work turned out to be transformative to my own pedagogy and to the course that followed. I want to share here the nuts and bolts of how we built the textbook, and reflect on how it affected the pedagogy that surrounded the book.

**Building the Book**

I have basic WordPress experience, and since I am too busy with teaching to explore every cool new thing I'd like to, I wanted to stick with an easy tool to build the book. I settled on Pressbooks [http://pressbooks.com/], which is a very simple, WordPress-based platform. If you are somewhat tech-savvy and comfortable playing around with things, you could definitely teach yourself the basics in an hour or so. I opened a free account and set up a framework for the book. Every section would feature a primary-source public domain document from the period, as well as an introductory context-setting piece.

I created a GoogleDoc and posted a call for research assistants on the undergraduate English Department Facebook group at my university. Research Assistants (RAs) were paid $10 for every public domain text they retrieved and documented, and we tracked it all in the GoogleDoc. Each RA was also paid to complete a basic training on copyright and open licensing, so they understood the definition of "public domain" and understood how to ascertain whether a particular digital version of a text was under copyright.

We started with the main texts that I wanted to cover in the course, based on what I had covered in the past using the Heath and other anthologies. Together over the summer, eight of us built the initial skeleton of the anthology: seven undergraduates (or recent alums) and me. In most cases, students provided the texts, and I edited and excerpted them myself, and then I loaded them into Pressbooks. When the Fall came, the course started and I introduced our rudimentary textbook to the crop of enrolled students, many of whom were aware of the project because their friends had participated in creating the book so far.

What the book still lacked, which my undergraduates really wanted, was the front matter that is conventionally included at the beginning of each text, which generally provides historical and biographical context to help students engage more fully with the primary documents. So students in the course signed up to create these introductions [https://edtechbooks.org/-sBJ] as we went through the course. Generally, they submitted them in time for the class to use them when we covered the text in the syllabus, but they also often revised them after we discussed the text in class if they thought they could improve them. Students also did editorial work on the primary documents, particularly in terms of modernizing spelling, which was a helpful exercise for them in terms of learning how to read original early documents, but also helpful to future students, who can now read the texts more quickly in the modernized versions; in one case, this version is the only openly-licensed modernized version

[https://edtechbooks.org/-NNw] of the text that currently exists.

In addition, students occasionally produced short films [https://edtechbooks.org/-ooz], discussion questions, and assignments related to the primary texts, and I have begun uploading those into the anthology as well.  I am transitioning to a new department this summer, and doubt I will have time to really stick with this project (anyone can pick it up, of course, but I am also hoping to formally pass it to someone who will commit to building it out), but it's easy to see the possibilities of how the collection could grow, and how the students could continue to add additional interactive materials.

So many of you are thinking, "That's great, but my field isn't comprised of public domain literature that I can just copy and paste into a book." Well, let me tell you about my second textbook project! The book I am currently working on is a different animal altogether. It's designed for Interdisciplinary Studies students, and will include foundational theory as well as research methodologies and a new vision for the field that integrates open pedagogy into interdisciplinary scholarship.  I started working on the book last year in my courses by asking students to blog about different topics we covered.  They assimilated ideas from outside readings [https://edtechbooks.org/-zPW] (all properly cited), from my lectures, and from active learning projects that we did.  They also wrote about their own customized majors [https://edtechbooks.org/-ktU] and applied capstone projects [https://edtechbooks.org/-Hyq] (service-learning/experiential/partnership-based) and how it all tied in with the foundational theories of the field.

I just received a small grant from the University System of New Hampshire to develop this textbook.  This summer, the plan is to take the student-created content (all of which is cc-licensed) and drop it into a Pressbooks shell much the way we did with the public domain literature in the anthology project.  And in the Fall, students in the Interdisciplinary Studies (IDS) intro course will edit that material,

create glossaries and short introductions, add assignments and writing prompts, and in-load multimedia supplements.  In the Spring, the capstone students will augment the sections that relate to the practice of IDS in their field experiences, and link [their own websites [https://edtechbooks.org/-Rsm]](https://edtechbooks.org/-Rsm) (we call them "ePorts") into the book to demonstrate how different principles get applied in their curricula and practica.  Students will also help me curate resource links for further reading, and locate other openly-licensed articles to import into the book.

People often ask me how students can create textbooks when they are only just beginning to learn about the topics that the textbooks cover. My answer to this is that unlike many other scholarly materials, textbooks are primarily designed to be accessible to students– to new scholars in a particular academic area or sub-specialty.  Students are the perfect people to help create textbooks, since they are the most keenly tuned in to what other students will need in order to engage with the material in meaningful ways.  By taking the foundational principles of a field– most of which are not "owned" by any prior textbook publisher– and refiguring them through their own lens, student textbook creators can easily tap their market.  They can access and learn about these principles in multiple ways (conventional or open textbooks, faculty lecture and guidance, reading current work in the field, conversations with related networks, videos and webinars, etc.), and they are quite capable, in my opinion, of designing engaging ways to reframe those principles in ways that will be more helpful to students than anything that has come before.

In other words, whether your subject matter will be made up of public domain literature or not, your students can help you create a textbook in most any field. Here are some practical reminders that might be helpful:

1. There is no rush! Don't worry about producing a beautiful, flawless textbook. Build it in stages across multiple years, and

let different cohorts of students contribute in different, layered ways. Make no claims to perfection. Your textbook is a work-in-progress, and it will continually improve as learners engage with it.

2. Academic labor is labor.  Students can help build the textbook if it's a meaningful part of the learning process in a class. Outside of that, find funding sources to support students or instructors who want to assist with the development of the project.

3. You don't need to be a tech guru to do this. Learn [how to openly license your book [https://edtechbooks.org/-iP]](https://edtechbooks.org/-iP) and learn how to get it online so folks can access and share it. Make sure you understand copyright issues so you can assure that everything in your book is freely available for you to use. The library is probably your best first stop for licensing questions, and your academic technology folks can assist you with getting a Pressbooks or website set up to host your textbook.

**The Effects on Pedagogy**

Ok, so now that stuff is out of the way, let's talk pedagogy.  The $85 dollars that I saved for each of my students seemed to be the least of what was exciting to me about the open anthology (and that was pretty exciting, given that many of my students struggled to afford our previous book– to the point that it often took them weeks to raise enough funds to get their own copy).  Let me start by telling you that no student in any of my classes ever told me that they loved our Heath anthology back when I was using it.  In sixteen years of teaching the course, no student every remarked on a course evaluation that our anthology was the best part of the class.  They tolerated it, often liked the helpful glosses, and sometimes loved the literature itself.  But a textbook is a textbook, and they saw it as neutral at best, uninspiring or frustrating at worst. I didn't really set out to make a better textbook.  I was just looking to replace a textbook and save some cash for strapped students. Boy, did I underestimate the power of the open textbook.

As students and alums worked with me over the summer to create that first skeletonic text, it was clear something amazing was happening.  The students immediately seemed invested in the project–almost like they were, well, writing a book with me. To me, the work seemed sort of second nature, since I often write for publication. But for my students, the idea that they were creating something that would be read/used by a different cohort of students a few months later was a truly novel and thrilling concept. They repeatedly volunteered to work for free (I resisted this), and they still sometimes inquire about whether there are roles they can play now that the book is at its next stage of development. When the students in the class started working with and contributing to the book, they often made comments about liking our textbook! But by getting to contribute to the book, make curatorial decisions about the kinds of texts to include, and frame the work in their own words, they seemed more connected to the textbook itself, more willing to engage with it. Here's a [short video [https://edtechbooks.org/-VIF]](https://edtechbooks.org/-VIF) featuring several of my students, which explores their experience of using OER and engaging in open pedagogy-based learning.

I also did something else that I think made a big impact on the class. I was sensitive to the fact that our new textbook would be digital, and that most students would not want to use up their print quotas by printing it out. I had read all the same stuff you have probably read about how [READING OFF A SCREEN IS BAD [https://edtechbooks.org/-ZoVB]](https://edtechbooks.org/-ZoVB) and [TAKING NOTES ON A LAPTOP IS BAD [https://edtechbooks.org/-Xcm]](https://edtechbooks.org/-Xcm), but it occurred to me that both of these things have to do with the fact that we spend so little time parsing the differences between reading off a screen and reading print, and so little time examining how digital notetaking differs from handwriting our notes.  My hunch is that it's not that screen reading or digital notetaking are worse for learning, but that we don't talk enough about what the digital texts enable that might be quite different from what is enabled by print.  So I started the class with [a consideration of the problems [https://edtechbooks.org/-gxh]](https://edtechbooks.org/-gxh) and

potential of moving to digital texts, and with a challenge to the class to try to produce our own work–even our notes on the text– digitally, even if that felt awkward.  We would assess at the end of the course which digital tools we would continue to work with and which we would jettison in favor of a return to the analog.
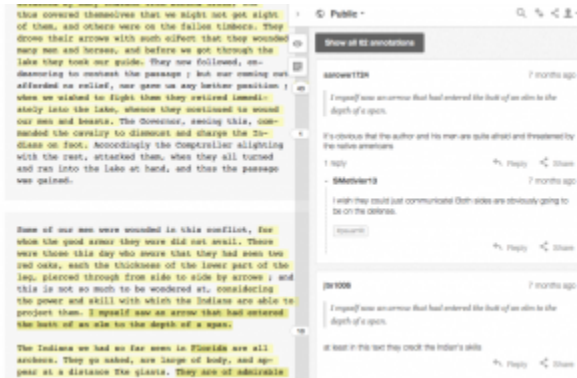


Annotated with Hypothes.is

So I added an app called "Hypothesis" [https://hypothes.is/about/] to the course, which allows readers to take notes on the text digitally. Because we set our notes to "public," students in my course (and in other courses at other colleges!) could see each others' annotations and comment on them. [https://edtechbooks.org/-RTc]  Almost immediately, we all realized that it wasn't the *digital* quality of the notes that was engaging; it was the *social* quality of the notes. Suddenly, our student-created textbook was turning into a cacophonous, heteroglossic tapestry of voices talking to each other about the literature.  While it may very well be true that taking notes longhand can help students recall specific detail more effectively than taking notes on a laptop, the question of how digital annotation of a text differs from hand-written annotation seems distinct, and there is no question that there were certain dimensions that opened up when we allowed the annotations–allowed ourselves– to talk to one another within the context of the close reading.

When I finally had time to sit down and take stock of what was happening, I realized a few things.

- The open textbook allowed for student contribution to the "master text" of the course, which seemed to change the whole dynamic of the course from a banking model (I download info from the textbook into their brains) to an inquiry-based model (they converse with me and with the text, altering both my thinking and the text itself with their contributions).
- The digital textbook meant they all had the book on Day 1 and nobody was behind, which seemed to level the playing field so we were all contributing more evenly than I had seen in the past.
- The fact that there were no limits on the kinds of things we could add into the textbook seemed to engender creativity in students, and allowed them to play to their strengths in figuring out what they brought to the table. This looked more like a real-world group project, in which team members would be asked to bring their talents to bear on some task.

As all of this became more evident to me, I began to be more concerted about playing up the open pedagogy that was developing. I became more reliant on Twitter as a tool in our class, and worked to develop the class community on our course hashtag, with the idea that letting students feel connected to each other outside of class would help them begin to engage with the work more as scholars and less as students. I opened Twitter chats with working scholars, tweeted links to their own student blogs when they interested me (we worked mostly outside of the LMS), and encouraged them to share their own work across whatever social media platforms they enjoyed using.

Student Blog About Hypothes.is

I also realized that my course was basically functioning as a MOOC (minus the "massive"–maybe it was a PMOOC: "Potentially Massive Open Online Course").  The text was free online. The syllabus and all assignments were online. The annotation system was publicly accessible, and the students were mostly all blogging on public websites that they built.  Many class discussions had Twitter chats embedded inside of them, and any of the lectures I gave were livetweeted (pre-Periscope!). While we still had a sense of intimacy and trust in our classroom, it seemed to liven everything up to connect our work as scholars of history and literature to larger communities outside of that classroom.

Now I want to pause for a second and get off the hype-mobile that I have been riding so far in this post.  While it's true that the creation of the open textbook absolutely transformed my teaching and my pedagogy, and while it is true that an open textbook has much more to offer faculty and students than cost-savings, it is not true that the open textbook is magic.  For every affordance it offered, my open textbook also revealed serious pitfalls, barriers, and challenges that I

am still working out.  Here are a few of them, which I hope to tease out more thoroughly in my work over the next year or so:

- If OER is free, what hidden costs exist in using it that still hinder student access to education?  For example, at my institution, 94% of students come to school with a laptop, which mostly means that my university wasn't too worried about providing laptops for students because (as one colleague told me) "they all have them."  But *all* meant that in my 25-student classes, there were regularly 1-2 student(s) who didn't have a machine.  In order to do what I wanted to do with the digital textbook and the connected learning, I had to first work to get a laptop rental program installed in my library to ensure that my students all had access to hardware.  I also had to spend a LOT of time going through each step of basic tech set-up.  Because the ["digital native" \[https://edtechbooks.org/-qxb\]](https://edtechbooks.org/-qxb) concept is [(still a) \[https://edtechbooks.org/-SpE\]](https://edtechbooks.org/-SpE) fallacy, and because my institution does not fully cover basic [electracy \[https://edtechbooks.org/-nzka\]](https://edtechbooks.org/-nzka) (I just learned that word from [Gardner Campbell \[https://edtechbooks.org/-sLN\]](https://edtechbooks.org/-sLN) and [Alex Reid \[https://edtechbooks.org/-ESI\]](https://edtechbooks.org/-ESI)) or digital literacy skills at the introductory level, I couldn't shorthand things like "create a Hypothesis login" without immediately leaving some students behind.  While I am all for letting students find their own way through the acquisition of specific tech skills, this self-directed approach to tech learning is something that has to be modeled and facilitated to ensure that students who are newer to technology can participate fully.  Bottom line, opening one line of access to a free eBook doesn't erase about a zillion other access issues that you will want to acknowledge honestly and assertively.
- If OER is free, what hidden costs exist in its production?  Making these textbooks is taking me a chunk of time in the off-season.  Thanks to my salaried position, I feel ok about putting in the overtime, but it's a privilege my colleagues who teach

under year-to-year part-time non-contracts can't afford. Who should be funding OER creation? Institutions? Students? For-profit start-ups? How will you invest time in this project without obscuring the true costs of academic labor? Right now, we pass the corruptly high cost of academic publishing onto the backs of academia's most vulnerable members: students. But as OER gains steam, we need to come up with funding models that don't land us back in the same quagmire of exploitation that we were trying to get out of.

- Working in public is exciting and enriching, and I have seen my students thrilled by the connections they have made and engaged by the ability to produce work for a larger academic commons.  That being said, working in public, and asking students to work in public, is fraught with dangers and challenges.  Students need to understand privacy and safety issues (and so do we; in case you haven't had [FERPA [https://edtechbooks.org/-KbF]](https://edtechbooks.org/-KbF)waved in your face recently let me do that for you now). They may not know about trolling or how to respond to it (seriously, we can't even say there is a universally agreed-upon best practice for handling trolling). They may (will) face vicious harassment, racism, sexism, homophobia, and all of the other things that we do a reasonably good job at regulating in our classrooms (maybe?), depending on the kind of work they do or the kind of digital profiles they put forward, purposefully or otherwise.  They will put crappy work online sometimes (sometimes they will know it's crappy and sometimes they won't); is that ok? Will it come back to haunt them when they look for a job (we need to take this concern seriously, given the debt they incur to study with us)? What professional risks do I assume when my pedagogy is so fully exposed? And who in the academy can afford to take those risks...and who cannot?

So yeah, that's only three bullet points, but there are so many threads embedded in each of those, I think I will stop there.

Here's the takeaways, for those of you who are first and last paragraph readers:



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Open textbooks save money, which matters deeply to our students. But they can also create a new relationship between learners and course content, and if teachers choose to acknowledge and enable this, it can have a profound effect on the whole fabric of the course. Jumping into the "open" part of the open textbook means opening our eyes to the real hazards and challenges of connecting our courses to a wider public. I am no expert on any of this, and I welcome feedback and thoughts (and suggestions for further reading) as I start to pick my way through this kind of teaching. My best advice is just to share your experiences and roadblocks with others. Lots of people are promising that "open" is a panacea for everything that ails us in education, and lots of people are rejecting "open" for its failures to deliver on that promise. Both of those positions seem reductive to me. So maybe I'll leave with two questions aimed at opening, rather than closing, the conversation:

- Do you use an open textbook? If so, what's that "open" part doing to/for your course?
- If you want to try incorporating an open textbook into your

course but haven't yet, what questions do you have before you'd want to give it a go?

## Suggested Citation

*DeRosa, R. (2019). My Open Textbook: Pedagogy and Practice. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/my_open_textbook*

# Remix, Mashups, Aggregation, Plagiarism Oh My

## Clint Lalonde

### Editor's Note

This was originally posted to Clint Lalonde's blog [https://edtechbooks.org/-bzb] on November 28, 2012.

I am about to criticize and show examples from a copyright poster (or, for you new-fangled kids, an infographic) I received in the mail today from Turnitin, the anti-plagiarism company. Fair dealing [https://edtechbooks.org/-vsNz] y'all.

The title of the poster is The Plagiarism Spectrum:  Tagging 10 Types of Unoriginal Work, and lists the top 10 types of plagiarism based on the findings of a global survey of nearly 900 secondary and higher education instructors. The poster ranks the severity of the offense (#1 being highest level of severity, 10 the lowest) and shows a scale of 1-10 based on how often each type of plagiarism appeared in the survey results. I tried to catch a full size shot of the poster (you can click the image for a larger, more detailed version):
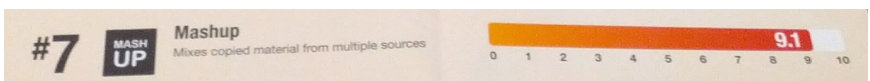
[https://edtechbooks.org/-JFq]
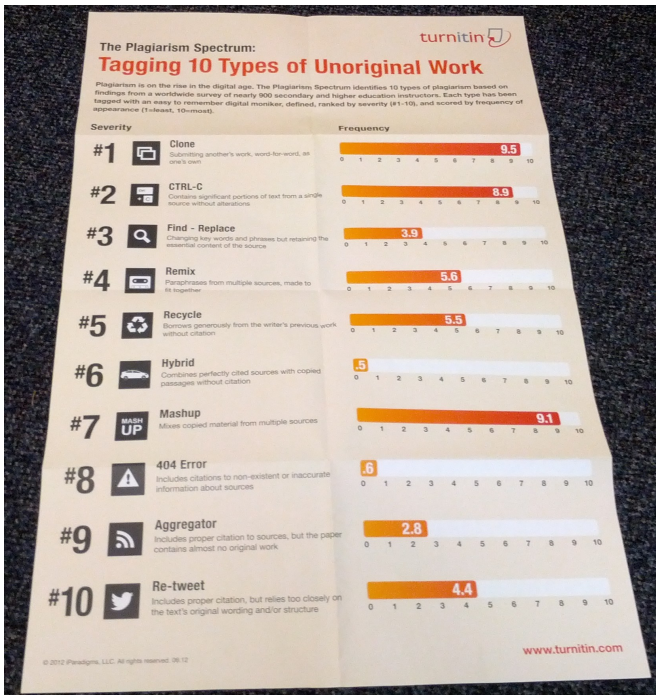
Well, I have some problems with this. Let's zoom in on the areas I find troublesome.



[https://edtechbooks.org/-Drq]

and

[https://edtechbooks.org/-tbQ]
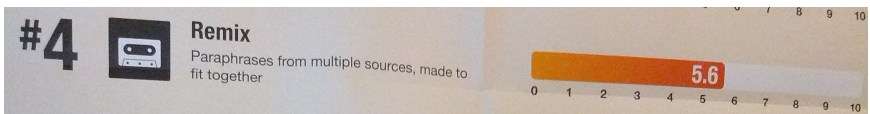
Remixing is the 4th most nefarious form of plagarism, and mashups are #7...at least according to these 900 teachers and instructors. This saddens me because I happen to consider these two activities some of the most [creative and original cultural acts [https://edtechbooks.org/-bJF]](https://edtechbooks.org/-bJF) happening today. And to think there are 900 some instructors and teachers out there who do not recognize the creative value  and sheer amount of work it takes to create something new and original out of what existed before.

Quite frankly, it astonishes me that in this day and age, remix and mashups are thought of as plagiarism. I am of the school that [everything is a remix [https://edtechbooks.org/-FpR]](https://edtechbooks.org/-FpR).



[https://edtechbooks.org/-PWy]
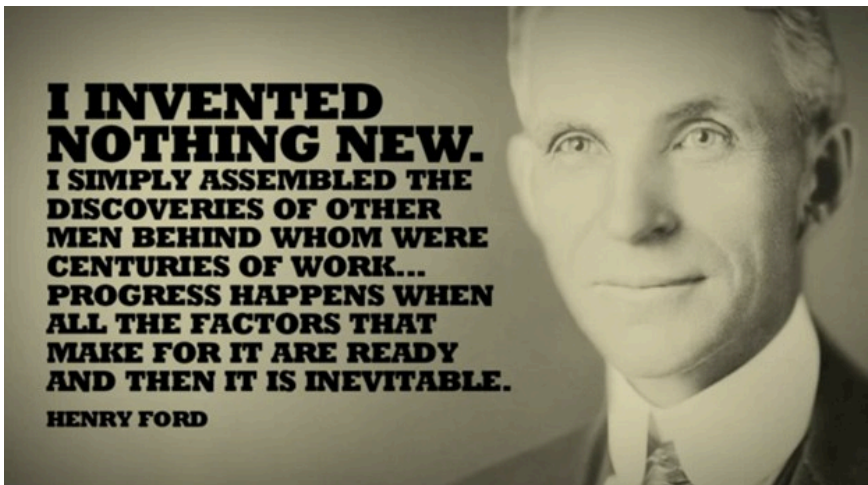
History is populated with examples where multiple ideas, products, music, literature, you name it were mashed-up, remixed and otherwise recontextualized to create something completely new and original. As [Brian Lamb [http://abject.ca/]](http://abject.ca/) puts it in his 2007 Educause

article [Dr. Mashup; or, Why Educators Should Learn to Stop Worrying and Love the Remix \[https://edtechbooks.org/-ILp\]](https://edtechbooks.org/-ILp):

> Elements of reuse have always been present in creative work, even though the borrowing may have been framed in terms of "tradition," or "influence." Artistic and scholarly works build on the work of others.

Yet, according to this study, we in education consider these acts of stealing; of unoriginal thought. Plagiarism. Laziness. Look at how lazy these [remix people \[https://edtechbooks.org/-IQV\]](https://edtechbooks.org/-IQV) are. They work in bed in their pyjamas for crying out loud.

No good can ever [come out of that \[https://edtechbooks.org/-XFr\]](https://edtechbooks.org/-XFr).

If this is the true and accurate sentiments of educators in general – that remix is, in fact a form of plagiarism – then it makes me realize just what kind of uphill battle we might face here in British Columbia as we move towards creating and modifying [Open Textbooks \[https://edtechbooks.org/-PpR\]](https://edtechbooks.org/-PpR). The challenge being that if educators have this underlying core value that remixing  someone else's content to create something new is plagiarism, then they are coming into the open text book project with the preconceived notion that we have to build something from scratch; reuse is not an option because it is plagiarism.

For me, this is the wrong way to approach an open textbook project. In order for the open textbook initiative to be successful, I think we need educators to come to the table with an open mind about reuse and remixing existing materials; to modify already existing open textbooks and openly licensed content to fit their specific needs. Not only do I think that starting from scratch is an arrogant place to begin (we are the only ones who know best), I think that if we try to recreate the wheel and start from scratch, we start at the bottom of the hill and put a big boulder in the way. Anyone who has written anything at length knows that it is much easier editing and modifying than staring
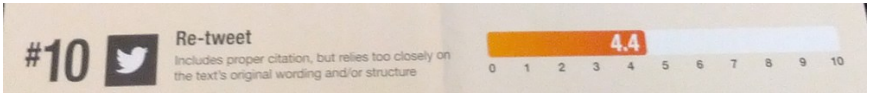
at a blank piece of paper in the typewriter.

I also have a problem that this:



[https://edtechbooks.org/-yce]

and this:



[https://edtechbooks.org/-CyT]
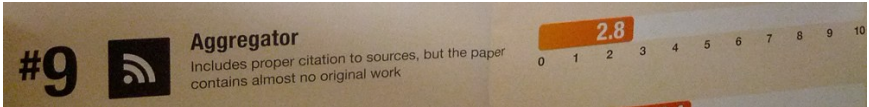
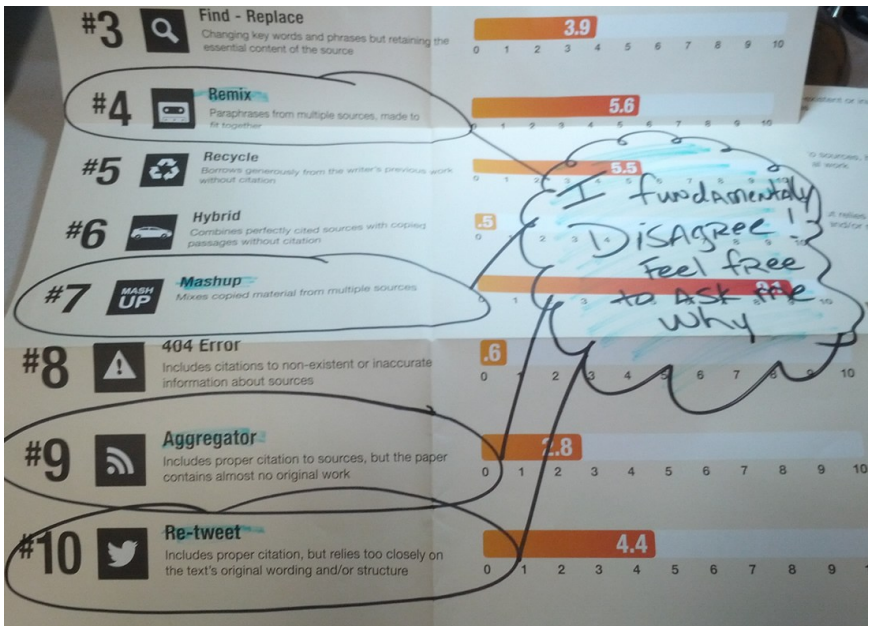are practices being painted with the plagiarism brush.

A retweet serves many purposes, not the least of which is attribution. If someone retweets something that I send out and keeps my Twitter handle in the tweet, I am notified. It is a signal to me that they find what I tweeted valuable – so valuable that they wish to share it with the people in their network. For the person being retweeted, this underlying message you receive when someone retweets one of your tweets is that the people in your network find that type of content valuable. It is a prompt to share more. We all know how important knowing your audience is in communication and writing, and a retweet is a signal back to the original source that someone in the audience found the content valuable, please share more like this. Retweets serve an important function in that it helps me know my audience.

Aggregation is, in essence, curation, a skill that I think is incredibly important in education [https://edtechbooks.org/-Qpa]. There is great skill to being a good curator of resources; a filter

[https://edtechbooks.org/-Qzm]. I value the [curators in my network](https://twitter.com/pgsimoes) [https://twitter.com/pgsimoes].  As educators, we constantly curate resources. It is one of the core learning activities we do – vet resources for our learners and point them in the direction of what we think is important. This is what aggregations is all about.

But the biggest problem I have with this poster is that it brings all of these things together in one handy, scary resource, and makes these practices appear fraught with danger, when in fact, I believe these are core skills required to create understanding in today's world. This poster is being sent out to other educators like myself in the hopes that it will get posted in a hallway or office so that other educators will see this. The underlying message they take away after viewing this poster is that these practices: Remix, Mashup, Aggregation and Retweet are riddled with risk (thanks, [Tracy](http://trassets.wordpress.com/) [http://trassets.wordpress.com/] for helping me articulate this). That whatever positive purpose they may serve in an educational context, the risk is not worth it. And I fundamentally disagree with that.

So, I am going to hang this poster in my office and I am going to use it to trigger a conversation. But I am going to modify it a bit.

#3  Find - Replace
Changing key words and phrases but retaining the essential content of the source
3.9
0 1 2 3 4 5 6 7 8 9 10

#4  Remix
Paraphrases from multiple sources, made to fit together
5.6

#5  Recycle
Borrows generously from the writer's previous work without citation
5.5

#6  Hybrid
Combines perfectly cited sources with copied passages without citation
.5

#7  Mashup
Mixes copied material from multiple sources

#8  404 Error
Includes citations to non-existent or inaccurate information about sources
.6

#9  Aggregator
Includes proper citation to sources, but the paper contains almost no original work
2.8
0 1 2 3 4 5 6 7 8 9 10

#10  Re-tweet
Includes proper citation, but relies too closely on the text's original wording and/or structure
4.4
0 1 2 3 4 5 6 7 8 9

*I fundamentally DISAGREE! Feel free to ask me why*

[https://edtechbooks.org/-Zsi]

## Suggested Citation

*Lalonde, C. (2019). Remix, Mashups, Aggregation, Plagiarism Oh My. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/plagiarism_oh_my*
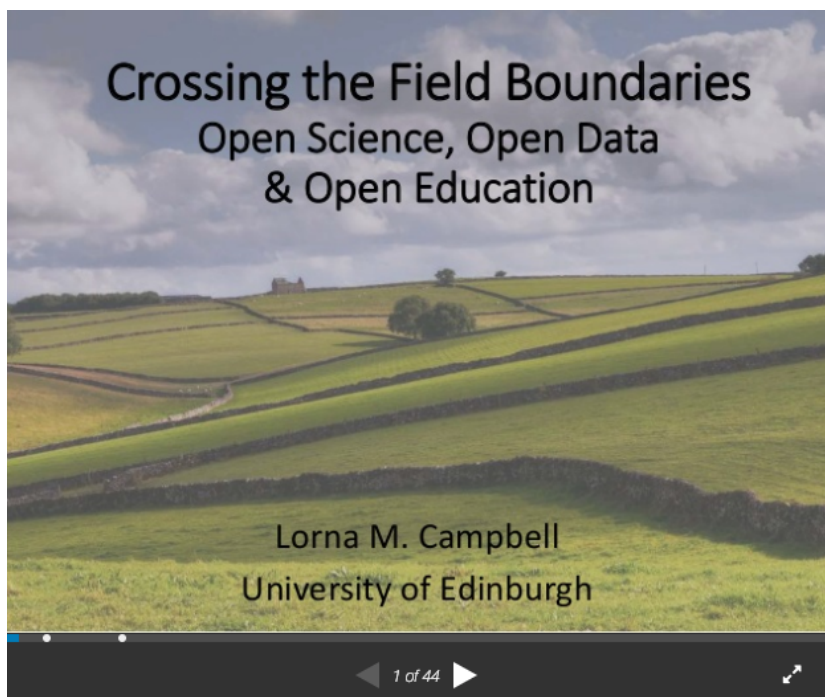
# Crossing the Field Boundaries: Open Science, Open Data & Open Education

Lorna M. Campbell

## Editor's Note

This was originally posted to [Lorna M. Campbell's blog [https://edtechbooks.org/-mxs]](https://edtechbooks.org/-mxs) on March 28, 2017.

*Last week I was invited to speak at the [International Open Science Conference [https://edtechbooks.org/-upY]](https://edtechbooks.org/-upY) in Berlin which this year had a special focus on OER.  My talk featured a case study of the University of Edinburgh's [Geosicence Outreach and Engagement Course [https://edtechbooks.org/-ys]](https://edtechbooks.org/-ys) so I'd like to thank Colin Graham and all those involved in the course for allowing me to present their inspirational work.*

[https://edtechbooks.org/-oSA]

This talk focuses on the interface between OER, open data and open science and our experience at the University of Edinburgh of promoting open education through the School of GeoSciences Outreach and Engagement course.

The title of this paper, "Crossing the field boundaries", comes not from the domain of GeoScicences though, but from [Maryam Mirzakhani [https://edtechbooks.org/-nSp]](), professor of mathematics at Stanford University and the first female winner of the Fields Medal. In a 2014 interview Maryam said

> "I like crossing the imaginary boundaries people set up between different fields—it's very refreshing. There are lots of tools, and you don't know which one would work. It's about being optimistic and trying to connect things."
>
> [A Tenacious Explorer of Abstract Surfaces](https://edtechbooks.org/-bGEG) [https://edtechbooks.org/-bGEG], *Quanta Magazine*, August 2014

I am not a mathematician, or a scientist, but I do have some experience of crossing field boundaries, and since open education is all about breaking down boundaries and cutting across fields, this seems like a nice metaphor to hang this talk on.

I've worked in open education technology for a long time now, but like most education technologists my background is not originally in either education or technology. In my case I started out as an archaeologist. I studied archaeology at the University of Glasgow and after working there as a field worker and material sciences technician for a number of years, I decided to cross over into another field, and by rather circuitous routes I found myself working in open education technology. Over the intervening years I've developed a strong personal commitment to openness in education, and I firmly believe that we have a moral and ethical responsibility to open access to the outputs of publicly funded education, research and science.

We've already heard a lot about the benefits of OER over the last two days so I'm not going to labour the point, however I just want to highlight this quote from the [Scottish Open Education Declaration](https://edtechbooks.org/-WJj) [https://edtechbooks.org/-WJj] as it neatly encapsulates the affordances of OER:

> Open education can expand access to education, widen participation, create new opportunities for the next

generation of teachers and learners and prepare them to become fully engaged digital citizens. In addition, open education can promote knowledge transfer while at the same time enhancing quality and sustainability, supporting social inclusion, and creating a culture of inter-institutional collaboration and sharing.

Scottish Open Education Declaration [https://edtechbooks.org/-WJj]

Institutions are already being encouraged to adopt open research policies and to publish publicly funded research outputs under open licences; similar policies and initiatives are required for open educational resources. Although open access, open education and open data have all made significant progress in recent years, there has been a tendency for these domains to progress in parallel with little sign of convergence. In the UK, Research Council mandates may have had a positive impact on open access and open research data, however the connection has yet to be made to open education and as a result there is a tendency to end up with "open silos". Indeed open access mandates may even have a negative impact on open education, as institutions focus their efforts and resources on meeting these requirements, rather than on ensuring their teaching and learning materials are appropriately licensed and shared online as OER. So while it's great that institutions are now thinking about how they can link their open research data with open access scholarly works, we also need to focus attention on linking open data to open education.

While the benefits of open data are widely recognised in relation to scientific and scholarly research, open data also has considerable value in the context of teaching and learning. Many governments, non-governmental organisations and research centres are already producing large volumes of open data sets that have the potential to

be used as open educational resources. Scenario based learning involving messy, real world data sets can help students to develop critical data literacy and analytical skills. Using open data introduces an invaluable element of realism and complexity as the data is flawed and inconsistent.  Students come up against challenges that it would be difficult to reproduce artificially and, as a result, they learn to deal with the kind of problems they will encounter in the real world.  And perhaps more importantly, working with real world open data from real governments and communities doesn't just help students to develop data literacy skills, it also helps to develop citizenship, social responsibility and community engagement.

In an influential report by the [Open Knowledge Open Education Working Group [https://education.okfn.org/]](https://education.okfn.org/), Javiera Atenas and Leo Havemann noted that

> Educators who make use of Open Data in teaching and learning encourage students to think as researchers, as journalists, as scientists, and as policy makers and activists. They also provide a meaningful context for gaining experience in research workflows and processes, as well as learning good practices in data management, analysis and reporting.
>
> [Open Data as Open Educational Resources: Case studies of emerging practice [https://edtechbooks.org/-DnU]](https://edtechbooks.org/-DnU), Javiera Atenas & Leo Havemann (Eds)

Despite these acknowledged benefits, there is still a tendency to conceptualise OER as what Atenas and Havemann describe as "educator-produced learning materials" – resources created by *teachers* for use by *students*.  However if we simply replicate existing academic modes of production through open education, then we're missing a trick.  One of the most important aspects of openness is the

ability to break down boundaries and cut across fields.  So I want to present a case study from the School of GeoSciences at the University of Edinbrugh that does just that.

Open knowledge, open access and open education are central to the University of Edinburgh's [Strategic Vision [https://edtechbooks.org/-hum]](https://edtechbooks.org/-hum). In support of this vision, the University host a range of open initiatives and services including an [Open Knowledge Network [http://okn.ed.ac.uk/]](http://okn.ed.ac.uk/), an [Open Research Repository [https://www.era.lib.ed.ac.uk/]](https://www.era.lib.ed.ac.uk/), an [Open Data Repository [http://datashare.is.ed.ac.uk/]](http://datashare.is.ed.ac.uk/), a [Wikimedian in Residence [https://edtechbooks.org/-Jzv]](https://edtechbooks.org/-Jzv), [a Citizen Science and Crowdsourced Data and Evidence Network [http://citsci.ed.ac.uk/]](http://citsci.ed.ac.uk/), open archives and [collections [https://edtechbooks.org/-rvN]](https://edtechbooks.org/-rvN), a wide range of [MOOC [https://edtechbooks.org/-Yyz]](https://edtechbooks.org/-Yyz)s, and [Open.Ed [http://open.ed.ac.uk/]](http://open.ed.ac.uk/) a one stop shop providing access to the University's open educational resources.

The University's vision for open educational resources builds on three strands:

- The history of the Edinburgh Settlement.
- Excellent education and research collections.
- Traditions of the Enlightenment and the University's civic mission.

The University has established an [OER Service [http://open.ed.ac.uk/events/]](http://open.ed.ac.uk/events/) that provides support frameworks to enable staff to share OER created as a routine part of their work, and to find and use high quality teaching materials developed within and beyond the University.

The service showcases Edinburgh at it's best, highlighting the highest quality learning and teaching; identifying collections of learning materials to be published online for flexible use, and enabling the discovery of these materials to enhance the University's reputation.

And as a contribution to the University's civic mission Edinburgh is opening access to its treasures, making available collections of unique resources to promote health, economic and cultural well-being; digitizing and sharing major collections of unique archives and museum resources to encourage public engagement with learning, study and research.

In order to ensure Edinburgh's OER Vision is sustainable and supported across the institution, the University has an accompanying OER Policy [https://edtechbooks.org/-Jd] that encourages staff and students to use, create and publish OERs to enhance the quality of the student experience and to help colleagues make informed decisions about creating and using open educational resources in support of the University's OER Vision.

One of the key aspects of Edinburgh's open strategic vision is to engage with and benefit communities outwith the institution.  The university is not alone in this; there are moves towards increasing community engagement right across the higher education and research sector.  At the same time, universities are rethinking how degree programmes are structured and are moving beyond traditional knowledge based courses in order to accommodate self directed learning, enable learning for life, empowering students to co-create their own education and build student capital.

initiative that does just that is the School of Geosciences Outreach and Engagement Course [https://edtechbooks.org/-ys] developed by the Geoscience Outreach Team. (list members on slide). This optional project based course for final year Honours and taught Masters students, has been running for a number of years and attracts students from a range of degree programmes including Geology, Ecological and Environmental Sciences, Geophysics, Geography and Archaeology.  Over the course of two semesters, students design and undertake an outreach project that communicates some element of the field of GeoSciences outside the university community.  Students

have the opportunity to work with a wide range of clients including schools, museums, outdoor centres, science centres, and community groups, to design and deliver resources for science engagement. These resources can include classroom teaching materials, leaflets, websites, smartphone/tablet applications, community events, presentations or materials for museums and visitor centres. Students may work on project ideas suggested by the client, but they are also encouraged to develop their own ideas. Project work is led independently by the student and supervised and mentored by the course team and the client.

This approach delivers significant benefits not just to students and staff, but also to the clients and the University.

Students have the opportunity to work in new and challenging environments, acquiring a range of transferable skills that enhance their employability. They also gain experience of science outreach, public engagement, teaching and learning, and knowledge transfer while at the same time developing communication, project and time management skills.

Staff and postgraduate tutors benefit from disseminating and communicating their work to wider audiences, adding value to their teaching and funded research programmes, supporting knowledge exchange and wider dissemination of scientific research.

The client gains a product that can be reused and redeveloped, new partnerships are formed, new education resources created, and knowledge and understanding of a wide range of scientific topics is disseminated to learners, schools and the general public.

The University benefits by mainstreaming community engagement, and embedding it within the curriculum.  The course also provides the opportunity to promote collaboration and interdisciplinarity across the University and helps to forge relationships with clients.

In the words of GeoSciences Brian Cameron, MBE:

> "the University and the students create a legacy of knowledge transfer and cooperation that benefits all."

The Geosciences Outreach and Engagement course has proved to be hugely popular with both students and clients. The course has received widespread recognition and a significant number of schools and other universities are exploring how they might adopt the model.

Here's just a few quotes from students who have taken the course;

> "It has been good to take my learning out into the community and give something back"

> "By taking this course, not only was I, as the student, able to learn about the values and excitement of public engagement with other disciplines, but I also developed a working tool for further scientific engagement for a new audience." (Jane Robb)

> "Geoscience Outreach and Engagement is one of the most interesting courses I have undertaken in my 5 years at Edinburgh. Not only do I get the opportunity to find new and exciting ways to inform people of all ages about Geosciences, I'm also learning valuable skills to enhance my future career after university. This course has taught me that everyone has a different way of learning, and instead of following one strict path, we should expand our ideas on how to effectively communicate science to the general public." (Rebecca Astbury)

Feedback from the clients was equally enthusiastic:

> "The student has done a wonderful job and we now have a new resource that we can use for years to come" (Class teacher)

> "We have appreciated the joint work with the School of GeoSciences and the experience has given me a new avenue in my own teaching to explore vis-à-vis practical hands-on experiments. S1 classes all did a practical demonstration of the erosion processes in rivers for example." (Class teacher)

> "She was an excellent ambassador not just for the university but for women in science and I feel she set a good example for a few of the girls in the class who are embarking upon geography and earth science studies and who may well now add geology to their subject choices. " (Class teacher)

A key element of the Geosciences Outreach and Engagement Course is to develop resources with a legacy that can be reused by the client and developed and disseminated further for use by other communities and organisations. The University is now taking this one step further by repurposing some of these materials to create open educational resources. Last year we recruited an Open Content Creation intern, undergraduate Physics student Martin Tasker, whose job it was to take some of the materials created by the Geoscience students, make sure everything in those resources could be released under open license and then share them in places where they could be found and reused by other teachers and learners.

So here for example is a resource on sea level variation [https://edtechbooks.org/-pKY] developed by student Roseanne Smith.

The resource covers glaciation, global warming, and isostasy and it includes a lesson plan, a PowerPoint presentation, printable photographs and questions, a student workbook, and a timeline to illustrate geological timescales.  The course is designed for students learning Geography at third and fourth level of the Scottish Curriculum for Excellence and it can be downloaded under a CC BY Share alike license from Open.Ed and [TES [https://www.tes.com/]](https://www.tes.com/). And there are other resources of this kind.

One of the things that was really inspirational about this initiative is that as part of his internship, our student was asked to reflect on his experience of the project and what he learned from it, and I think it's worth taking a little time to listen to Martin's thoughts.

This first quote is taken from a blog post our student wrote at the start of his internship where he talks about how he had already engaged with OER.  Before becoming an undergraduate, he had looked at MOOCs and OERs from various universities to find out more about subjects and course he was interested in.

> "Open education has played such an integral part of my life so far, and has given me access to knowledge that would otherwise have been totally inaccessible to me. It has genuinely changed my life, and likely the lives of many others. This freedom of knowledge can allow us to tear down the barriers that hold people back from getting a world class education – be those barriers class, gender or race. Open education is the future, and I am both proud of my university for embracing it, and glad that I can contribute even in a small way. Because every resource we release could be a life changed. And that makes it all worth it."
>
> [A Student's Perspective on Open Education [https://edtechbooks.org/-kew]](https://edtechbooks.org/-kew), Martin Tasker

So that was the place where our student intern started out form, he was obviously every much on board with open education and OER right from the start. And this second quote is from his final blog post "Wrapping up my time as open content intern"

> "Open Education is a large part of the reason I'm at Edinburgh studying physics, and I firmly believe that it is one of the keys to widening participation in education in a meaningful way. The proliferation of the internet among all classes in society means that a savvy university can reach those that would previously have had little access to education beyond their school years. And with our work in OERs, we can hopefully feed back some of the expertise of our academics into the classroom, raising the standard of teaching and taking some of the pressure off extremely overworked teachers."

> [Wrapping Up: My Time as an Open Content Curator Intern \[https://edtechbooks.org/-JWJ\]](https://edtechbooks.org/-JWJ), Martin Tasker

One of the things I really like about these two quotes is that, I have worked in open education for over ten years now but I don't think I could have articulated any more clearly why open education and OER is so important. The Geosciences Outreach and Engagement course provides an excellent example not only of community engagement and knowledge exchange up also of involving students in the co-creation of their learning experience more widely.

**Additional References**

- [GeoScience Outreach and Engagement Insight Paper \[https://edtechbooks.org/-PHB\]](https://edtechbooks.org/-PHB), Institute for Academic Development

- [Building Student Capital Through Student-Led Outreach, Engagement and Learning Development \[https://edtechbooks.org/-uvb\]](https://edtechbooks.org/-uvb) by Colin Graham

## Suggested Citation

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# The CCK08 MOOC

## Connectivism Course, 1/4 Way

# Dave Cormier

### Editor's Note

This was originally posted to Dave Cormier's blog [https://edtechbooks.org/-ojR] on October 2, 2008.

To the best of my knowledge, the term "MOOC" comes out of a skype chat conversation I had with George Siemens [http://elearnspace.org] about what exactly he would call this thing he and Stephen Downes [https://edtechbooks.org/-wBK] were doing so I could call it something for the ETT show were were planning on the subject. We threw a bunch of possibilities around, and I dropped MOOC into the connectivism wiki [https://edtechbooks.org/-jPV], and, yesterday, someone asked me to do a presentation on the topic. 3 months. crazy. I'm not going to dial down into specifics of how the course is structured, so if you don't know what I'm talking about… check out the wiki [https://edtechbooks.org/-rwr] first.

We had two discussion on edtechtalk about the course before things actually kicked off… We had George, Stephen, Alec Couros and Leigh Blackall come out and share their opinions on the topic. Stephen and George as the course leaders and Alec and Leigh as two of the best thinkers on open courses that I know. The upshot of it was that it really was going to be an open course, and the instructors were going to allow the students to form whatever groups they might be

interested in and they would provide the communication stream but not the organizational scaffolding.

# Communications – What there is

There are a variety of ways in which learners in the connectivism course are being distributed to the world, and I'll break down each one and try to establish how i feel they're working at this point. Overall the communications weight on George and Stephen is huge, they're involved in a large number of conversations, and have been trying to follow the vast weight of the content that has been produced… not sure this is a sustainable model, nor would it necessarily work as well for a different teacher who didn't already spend a large amount of time working on the web. (note – i hate googlegroups and am therefore not able to speak to them. haven't participated, have heard that they exist)

*[Moodle [https://edtechbooks.org/-QFM]](https://edtechbooks.org/-QFM)*
Moodle is a Virtual Learning environment and is being used for one primary (forums) and one collateral purpose (aggregation). The aggregation purpose serves the same goal as the [multitude of pageflake, netvibes etc… aggregation page… [https://edtechbooks.org/-Vet]](https://edtechbooks.org/-Vet)it helps people see what's going on. Good so far as it goes. The moodle discussions have taken on that nice tone that I like to see. They are polite, (mostly) and there is an acceptance that it is a public space. There are several exploratory threads that I think have been very useful to the learners… i've always really liked discussion forums for co-creation of knowledge. I think this is working… for those who are using it.

*[The Daily [http://connect.downes.ca/]](http://connect.downes.ca/) and [the blog [https://edtechbooks.org/-kJz]](https://edtechbooks.org/-kJz)*.
This is the master aggregated list of all the posts related to the course as well as a few plucked out by Stephen as of particular interest to him, and the blog serves as a central stream of discussions (i

particularly like Stephen's round up... agree or disagree Stephen always leaves you with something to think about) I've used the Daily as my main way of following along with the course.

*The wiki and the readings*
I think that the syllabus can be very helpful, but the work there has not really been worked on by anyone other than Stephen and George... not much sense having a wiki when only the administrators end up working in it. Wikis almost always end up this way... This is the main syllabus for the course, and a good way to catch up with the core course material. I've not done most of the readings, but they are available here, and I've been sampling them occasionally...

*The live stuff – eluminate and ustream*
I'm not a big fan of eluminate, i think it's a little clunky, it's never really liked my microphones and i think it's far too 'display' centric. It replicates the f2f presentation and I think, doesn't really represent the most realistic way that people participate in front of their computers. I'm biased, i like the ustream format we're doing... it's more user focused and I get to talk more :) That being said, these are the most effective parts of the course for me, I really have to commend both Stephen and George for their lucidity and their willingness to be in the firing line every day. I'm loving moderating the ustream and have really enjoyed the questions from the chatroom... still wondering if it makes sense to bring people into the live discussion... so far the format seems to be working with me as the rep. of the folks in the chatroom... would like feedback on this.

# Early lessons

I remember George saying something in one our our Edtechtalk discussions like "just getting the course off the ground is what I'm going to consider a success" and I think I agree with him. It's a huge undertaking, with lots of little bits and pieces and a collosal amount of data. That being said, here'r some of the things that I've taken out of

the first quarter of the course

*Prerequisite Literacies*
I think this kind of course needs a very specific description of what people are goign to need to know in order to be able to participate effectively. This might also include go forward models in terms of how people might go about doing that. For those of us who participate in online communities all the time it wasn't terribly difficult, but i get the sense that more online participation would have resulted from added scaffolding.

*Community building*
I'm a bit of a community freak. I'm in the online stuff for the community as much as the learning… I like to hear about people's lives as much as their professional accomplishments, I learn from their mores as much as their knowledge. I would have liked a bit more sanctioned community building directed from the top, to help scaffold the organicness of the groups that are out there… but that's just me.

*Course standards*
I'm not sure if this is a lesson or not, because i think it's been handled pretty well. There are some folks who've taken a more combative approach to the course which others have felt restricts the conversation. I HATE 'what you can do' standards on the internet generally, but i think the grace with which S and D have accepted critiques speaks well for them and open courses generally.

# Rhizomatics

My own goals going in were to get a better sense of where my own work fits in with Connectivism. I've said several times that I've felt that rhizomatic community stuff seems like a subset of connectivism, even though I personally don't go in for the 'neural networks' stuff… a science i consider too shadowy at this point to use as a premise for solid philosophical discussion (let alone practical application) I believe

i'm seriously at odds with S & D on this and, as they have clearly done way more research on this than I have, I would probably consider taking their opinion over mine. I just can't help but think that we are at the Bohr Atom stage of our understandings of our brains at this point… we have some models, they are a verifiable narrative, but not something I'm looking to use to guide my policy.

The debate around my article has been interesting (and not least in the way that people were WAY more polite about the theory during the live discussions) … particularly in the ways that I haven't been clear. I don't, for instance, think that rhizomatic education is a particularly fantastic way of memorizing things that are useful. I do realize that there are many different 'real world' issues out there that make it difficult. That theory did, at least partially, come out of real experience in the classroom and after the paper was released, I actually ran a course by its priciples… that was fairly well received. There are gaps, and many have been very nicely elucidated in the discussions.

Very cool so far. much more to say, but babyland [https://edtechbooks.org/-Dgs] has left me with other gardens that need tending.

## Suggested Citation

*Cormier, D. (2019). The CCK08 MOOC: Connectivism Course, 1/4 Way. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/connectivism_course*

# OERs: The Good, the Bad and the Ugly

## Tony Bates

### Editor's Note

This was originally posted to [Tony Bates's blog](https://edtechbooks.org/-ATz) [https://edtechbooks.org/-ATz] on February 6, 2011.

[https://edtechbooks.org/-mxV]

I increasingly fear that the open educational resources movement is being used as a way of perpetuating inequalities in education while purporting to be democratic. Some components of OERs also smack of hypocrisy, elitism and cultural imperialism (the bad), as well as failure to apply best practices in teaching and learning (the ugly). Despite my support for the idea of sharing in education (the good), these concerns have been gnawing away at me for some time, so after 42 years of working in open learning, I feel it's time to provide a critique of the open educational resources 'movement'.

This is prompted by several recent developments, such as the following publications and events:

Walsh, T. (2011) Unlocking the Gates: How and Why Leading Universities Are Opening Up Access to Their Courses [https://edtechbooks.org/-UCU] Princeton NJ: Princeton University Press

For a brief review of this book and interview with the author, see: Kolowich, S. (2011) Online courseware's existential moment Inside Higher Education [https://edtechbooks.org/-efz], February 3 (thanks to Clayton Wright for directing me to this).

For an interview with the author, see: Unlocking the gates: interview with the author, Taylor Gates [https://edtechbooks.org/-oP], in Higher Education Management Group [https://edtechbooks.org/-Pzd] blog, and a follow-up from Keith Hampson on industrial vs cottage industry OERs: OERs: Conversation Notes [https://edtechbooks.org/-NJB]

EDUCAUSE (2010) Open Educause Review [https://edtechbooks.org/-zID], Vol. 45, No. 4 (special edition of open educational resources).

# Openness as a value

No, I'm not going to attack motherhood. I agree 100% with David Wiley when he says in his [editorial in Educause Review [https://edtechbooks.org/-aAP]](https://edtechbooks.org/-aAP):

> 'those educators who share the most thoroughly of themselves with the greatest proportion of their students are the ones we deem successful.....Education is sharing. Education is about being open.'

However, this is a definition of 'open learning', and I will argue that 'open learning' is much broader and actually different from 'open content' or 'open resources.'

For me, in an ideal world, education would be open to all, and would be free for everyone. However, we don't expect teachers or university lecturers to work for nothing, so we immediately have a tension between the ideal and the reality of public education. There are costs in the system, and they have to paid for, one way or another.

Furthermore, even if we accept the somewhat questionable notion that content is or will be free in a digital world, I will argue that open content on its own will not do much for open learning, because education is more than about delivering content, and it is in the 'more' where the real costs lie.

Lastly, the word 'hypocrisy' keeps coming to mind when I hear wealthy institutions pounding their chests for 'giving away' content that either the public through taxes or students through fees have already paid for, while their fees are such that they exclude all but the rich from their own programs and the accreditation that open content does not provide.

If you want to hear the justification for these arguments, I'm afraid

you are going to have to read a long blog post (but at least its open).

# What do we mean by 'content'?

We need to be clear about what we mean by content.

Content has many meanings. In digital terms we often describe content by its format: text, audio, video, or blogs, podcasts and YouTube. However, in educational terms, content is about facts, principles, ideas, beliefs, arguments, and descriptions or manifestations of processes, feelings and emotions. Academic content is often considered to be of a second order, one or more levels above direct experience: generalization, abstractions, rules and principles.

The public seems to swing wildly between believing that content is king and that content is now obsolete. The 'content is king' school argues for set curricula, prioritizing content into what is important and what is not important, standardized testing of recall or reproduction of content. The 'content is obsolete' school argues that it's all about competencies, skills, and doing. In fact we need both content, and the development of competencies and skills, which usually means applying content (as defined educationally above) to the real world, putting it into context and evaluating its appropriateness within a given context.

So we do need content in education. However, content is not static, nor a commodity like coal. Modern research into learning shows that content is best learned within context (situated learning), when the learner is active, and that above all, when the learner can actively construct knowledge by developing meaning and 'layered' understanding. In other words, content is not effectively learned if it is thought of as shovelling coal into a truck. Learning is a dynamic process that requires questioning, adjustment of prior learning to incorporate new ideas, testing of understanding, and feedback. These 'transactional' processes require a combination of personal reflection,

feedback from an expert (i.e. the teacher or instructor) and even more importantly, feedback from and interaction with friends, family and fellow learners. The weakness with open content is that by its nature, at its purest it is stripped of these developmental, contextual and 'environmental' components that are essential for effective learning. In other words, it is just like coal, sitting there waiting to be loaded.

Now don't misunderstand me. Coal is a very valuable product. But it has to be mined, stored, shipped and processed. We are not paying enough attention in the discourse around open content to these contextual elements that turn it from a raw material into a useful output.

# The good

Surprisingly, I'm having most difficulty with this part of the discussion. Is it good to share content? Yes, of course, but don't confuse it with learning.  Open content is nothing more than a glorified digital public library, without the fines for being overdue. A library does not a degree make.

Ah, but what about getting access to the best and most up-to-date thinking on a subject, such as through MIT's OpenCourseware project? Well, at best it does no harm, but see below my criticisms under both the 'Bad' and the 'Ugly' headlines. Yes, I can certainly see the value if I was an instructor contemplating a new course or program, but I would be surprised if I would need to go to OpenCourseware to determine the curriculum. This will be influenced by a very wide range of factors, such as more recent research in publications, attendance at professional conferences, and my own research and that of close colleagues. The danger is that I would just import the material without fully understanding why it was originally chosen, what its limitations are, and then I would be in difficulties fielding questions from students. However, as a resource for helping me define what I want to teach, yes, open content is definitely helpful.

However, for me, the two main reasons for using open content are as follows

- by students, in a learner-centered teaching approach that focuses on students accessing content on the Internet (and in real life) as part of developing knowledge, skills and competencies defined by the instructor, or (for advanced learners) in conjunction with learners themselves. However, this would not be restricted to officially approved open educational resources, but to everything on the Internet, because one of the core skills I would want to teach is how to assess and evaluate different sources of information.
- by a consortium of instructors or institutions creating common learning materials within a broader program context, that can be shared both within and outside the consortium. However, not only would the content be available, but also the underlying instructional principles, learning outcomes, learner assessment strategies, what learner support is needed, learner activities, and program evaluation techniques, so that other instructors or learners can adapt to their own context. This approach is being taken by
    - the Carnegie Mellon Open Learning Initiative [https://edtechbooks.org/-PQy]
    - to some extent by the UK Open University's OpenLearn [http://openlearn.open.ac.uk/] project
    - the Virtual University of Small States of the Commonwealth [https://edtechbooks.org/-Aam]
    - OER Africa [http://www.oerafrica.org/]

OER from University of Cape Town in OER Africa repository

Note however the more context that is supplied, the more restricted is the number of possible applications of the content outside the original group that created it. BCCampus requires institutions who use BCCampus course development funding to make that material available for use by any institution within the province, through its [SOL•R repository \[http://solr.bccampus.ca/wp/\]](http://solr.bccampus.ca/wp/), but it is at best only partly open source, as the government retains copyright of the material (although in practice, it is quite easy to access outside the province as well.)

There are probably other contexts where open content can be both useful and effective, but these need to be defined, tested and evaluated.

A major argument of course for open content is that this will be of enormous help in developing countries who lack qualified instructors. For my response to this, see 'The bad' below.

# The bad

It's easiest here to start with actual examples.

[Health Sciences Online \[https://edtechbooks.org/-wXt\]](https://edtechbooks.org/-wXt)and [GlobalUni \[http://www.globaluni.info/\]](http://www.globaluni.info/). Health Sciences Online (HSO) is a non-

profit online health information resource that launched in December 2008. The website aims to provide quality educational resources to health care providers in training and practice, especially in developing countries, thus bridging the digital divide (the global imbalance in access to information technology). The four pillars of HSO are being comprehensive, authoritative, ad-free and free. The next step for HSO is to become an online health sciences learning centre, providing credentials and distance education degrees to help satisfy the great need for more and better-prepared health care professionals worldwide.

It plans to do this through the GlobalUni. GlobalUni claims (like the University of the People) to be the world's first free university. Founding collaborators and funders include the U.S. CDC, NATO's Science for Peace initiative, World Bank, WHO, and the World Medical Association. The full health sciences launch in 2011 will include the world's first free master's degrees, multiple medical residency training programs and 30+ other medicine, public health, nursing, pharmacy, and dentistry courses.

All this sounds fine, until you look closer. The materials available to date are terrible, mainly Powerpoint slides, lecture notes, and pdf files. No principles of distance learning design have been applied. Student assessment is a joke, relying mainly on peer assessment and multiple choice, self-assessed questions. Unless the whole thing is radically changed, the result will be appallingly bad training for people in developing countries. It is this kind of initiative that gives not just open educational resources, but all online learning, such a bad name. It is bad, because it lacks all the essential components of a successful learning context, especially for learners in developing countries. They don't deserve third rate teaching such as this.

Health Sciences Online materials

Similarly the claim that MIT's OpenCourseware will radically change learning in Africa and other developing countries is another example of the arrogance of assuming you can just take content from one country and dump it into another, like giving away free coal. Content needs not only to be contextualized but also adapted for independent or distance learning. If MIT really wants to improve learning in Africa, it should redevelop the materials with African partners, build in learning activities, ensure that the learners have well trained instructors, locally or from MIT, to support the teaching, ensure a full learning context is provided, and work with African partners on the ground. It should then give those that graduate an MIT degree. Perhaps then I won't get my regular e-mails from poor students in developing countries asking me how to get into MIT.

# The ugly

What makes a lot of open content ugly is the lack of design or adaptation to make it suitable for independent or distance study or for third party use. It is as if 40 years of research on effective practice in distance learning has all been for nothing. The problem of course is cost: it takes time and money to do this. However, if instructors know from the start that whatever they are developing will be used as open content, and they work with an instructional designer to ensure it is suitable for secondary use, then the costs can be kept reasonably low.

But this means developing a comprehensive strategy for open content that includes thinking of the contexts in which it would be used, and how to make it valuable within such contexts, which few institutions have done.
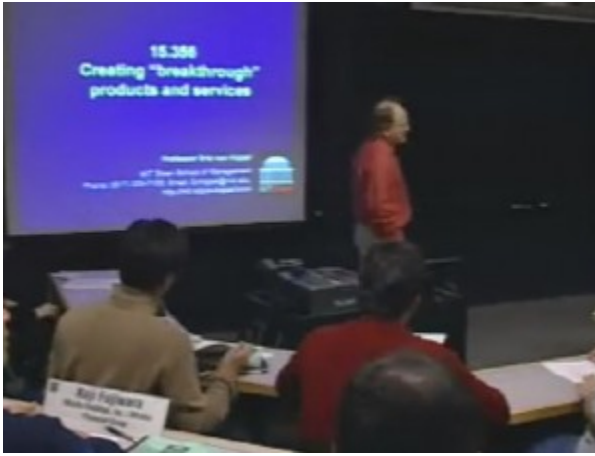


A lecture from MIT's OpenCourseware

# Conclusions

The main barrier to education is not lack of cheap content but lack of access to programs leading to credentials, either because such programs are too expensive, or because there are not enough qualified teachers, or both. Making content free is not a waste of time (if it is properly designed for secondary use), but it is still a drop in the bucket. Initiatives such as Health Sciences Online suck up a lot of sponsor funding that could be better used by providing proper educational provision within a developing country. If MIT wants to put its material online to show off the academic quality of its instructors, and their great lecture style (cough, cough) then fine, but don't pretend you're saving the world.

Open educational resources do have an important role to play in online education, but they need to be properly designed, and

developed within a broader learning context that includes the critical activities needed to support learning, such as opportunities for student-instructor and peer interaction, and within a culture of sharing, such as consortia of equal partners and other frameworks that provide a context that encourages and supports sharing. In other words, OERs need skill and hard work to make them useful, and selling them as a panacea for education does more harm than good.

## Suggested Citation

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# What's Right and What's Wrong about Coursera-Style MOOCs

## Tony Bates

### Editor's Note

This was originally posted to [Tony Bates's blog](#) on August 5, 2012.



[Watch on YouTube https://edtechbooks.org/-PdI](#)

Daphne Koller, one of the two founders of Coursera, describes some of the key features of the Coursera MOOCs, and the lessons she has learned to date about teaching and learning from these courses. The

video is well worth watching, just for this.

However I'm probably going to suffer the same kind of fate of the Russian female punk band, [Pussy Riot](), by spitting on the altar of MOOCs, but this TED talk captures for me all that is both right and wrong about the MOOCs being promoted by the elite US universities.

Let me start by saying that I actually applaud Daphne Koller and her colleagues for developing massive open online MOOCs. Any attempt to make the knowledge of some of the world's leading experts available to anyone free of charge is an excellent endeavour. If only it stopped there.

What I object to is the hubris and misleading claims that are evident in this TED video. As someone once said about one of Sigmund Freud's lectures, what is new is not true, and what is true is not new.

# Myth 1: MOOCs increase access to higher education in developing countries

She starts by using the example of students being trampled to death trying to get into the line for the very few places left open by the campus-based University of Johannesburg in South Africa. This is a particularly maladroit example. Yes, there is a desperate shortage of conventional university places in South Africa. But South Africa has probably the oldest distance and open teaching university in the world, UNISA, currently with over 160,000 students. Just providing not for credit open online learning from the USA will not solve South Africa's access problems (especially as most of those seeking university places do not have home Internet access). Indeed, to suggest that Coursera is an alternative to conventional university education takes the pressure off governments such as South Africa's to find their own, indigenous solutions to access to higher education.

If Stanford or MIT gave credit for these courses to students from South Africa who succeeded in the exams, and then awarded them full degrees, then that might be different. But these elite universities continue to treat MOOCs as a philanthropic form of continuing education, and until these institutions are willing to award credit and degrees for this type of program, we have to believe that they think that this is a second class form of education suitable only for the unwashed masses.

## Myth 2: new pedagogy

Second, the teaching methods used by most of the Coursera courses so far are based on a very old and outdated behaviourist pedagogy, relying primarily on information transmission, computer marked assignments and peer assessment. Behaviourist pedagogy has its value, especially where there are right and wrong answers, facts or procedures that must be learned, or students lack higher level cognitive processing skills. In other words it works reasonably well for certain levels of training. But it is extremely difficult if not impossible to teach higher order skills of critical thinking, creative thinking, and original thinking using behaviourist pedagogy, the very skills that are needed in a knowledge-based society. (It should be noted that the 'Canadian' MOOCs of Stephen Downes, George Siemens and Dave Cormier do not suffer from this fault).

Third, and this is the most enraging part of the presentation for me, Daphne Koller talks as if she invented online learning, and that nothing was known beforehand about works and doesn't work in online learning. So she has discovered that students learn better if they are active, so there are lots of tests and activities in the courses. It is better to break up monolithic one hour lectures into smaller, more digestible chunks. Both these strategies in fact date back to the UK Open University print packages forty years ago and it has been standard practice to incorporate such strategies in most online

learning since it began on a serious scale 20 years ago.

Her comparisons are all with the weaknesses of lecture-based teaching. For this we should perhaps be thankful but again this is not new – online educators have been making this point again for over 20 years. And now Coursera is creating local or online study groups: again standard practice in other forms of online learning.

# Myth 3: big data will improve teaching

One example used in the video was how computer-tracking of student activities can identify weaknesses in the teaching. The example was over 2,000 students giving the same wrong answer to a multiple choice question. In other words, Coursera is using trial and error as a form of teaching: try something, and if it doesn't work, correct it the next time round. However, if they followed good design principles from the outset – for instance working with an instructional designer who could spot such errors or pre-testing material before it goes out to hundreds of thousands of guinea pig students – many of these 'errors' in teaching would be avoided in the first place. It is far, far better to avoid errors in teaching than to try to correct them afterwards: unlearning is much harder. With massive numbers of online students, the negative impact is equally massive.

# Myth 4: Computers personalize learning

No, they don't. They allow students alternative routes through material and they allow automated feedback but they do not provide a sense of being treated as an individual. This can be done in online learning, but it needs online intervention and presence in the form of discussion, encouragement, and an understanding of an individual student's needs. The TED lecture omitted any discussion of completion rates. Again, this should not be the measure of MOOCs, but if you are going to argue that this form of teaching is superior to

other forms of online learning, then discussion of completion rates becomes valid.

Daphne Koller's final comment is telling:

> *'We should spend less time at universities filling our students' minds with content by lecturing at them, and more time igniting their creativity ... by actually talking with them.'*

However, that requires the presence of a teacher, either in the class or online.

# Conclusion

I am sad having to write this. Daphne Koller gave a good lecture. Even these MOOCs are valuable, because, coming from elite universities, they have woken up the media in particular, and brought online learning to the attention of the public. I believe MOOCs have great potential for higher education: but not these MOOCs. And please, is it too much to ask for a little humility? (Probably, from so-called elite institutions).

Lastly, be careful what you wish for. Underlying all this is a fundamental question: is online learning best left to computer scientists or to teachers (or even students)? I know where I stand on this. What about you?

## Suggested Citation

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# Opening Up Open Pedagogy

## Catherine Cronin

### Editor's Note

This was originally posted to [Catherine Cronin's blog [https://edtechbooks.org/-mBm]](https://edtechbooks.org/-mBm) on April 24, 2017.



[https://edtechbooks.org/-Jzp]

Many thanks to Maha Bali for organising tonight's [Open Pedagogy Hangout [https://edtechbooks.org/-Jzp]](https://edtechbooks.org/-Jzp). Maha has [curated a number of blog posts [https://edtechbooks.org/-TqS]](https://edtechbooks.org/-TqS) about open pedagogy and also started a Google doc to collect notes, links, etc: [http://bit.ly/CurateOpenPed. [http://bit.ly/CurateOpenPed]](http://bit.ly/CurateOpenPed)Thanks to all who have blogged and shared their thoughts. I'm grateful for the opportunity to participate and looking forward to tonight's conversation very much.

I've blogged recently about my understanding of [open pedagogy and OEP [https://edtechbooks.org/-tDA]](https://edtechbooks.org/-tDA) (considered together and separately) and also about how I've [defined OEP [https://edtechbooks.org/-nZB]](https://edtechbooks.org/-nZB) (inclusive of open pedagogy) in the course of my PhD research. As I've explored both the history and current practice of open education, I've found it useful to note [two broad strands [https://edtechbooks.org/-ZuA]](https://edtechbooks.org/-ZuA) of definitions of OEP/open pedagogy: those focused on OER (and the 5Rs) and broader definitions. I'm re-reading some of this work in preparation for tonight's hangout. In reading some of my notes on the earlier open education literature, I've been drawn to particular ideas and quotes — not complete, not comprehensive, but catching my interest today. I share them here. *(Please note: not all of these are available open source, but I will be happy to share PDFs with you if you'd like them.)*

**Postscript:** I've made two updates to this post, 3 hours after first publishing it. Firstly, I've added a link to the Open practices: briefing paper (Beetham, et al. 2012) — a key source with respect to OER and OEP, mistakenly omitted in my haste earlier. Secondly, the list shared here is a selection of work published between 1975 and 2012. I've omitted later references as I don't wish to pre-empt current thinking about this topic by those participating in tonight's discussion and/or blogging about the topic this week. For current thinking by all engaged in this discussion, please see Maha's curated list of blog posts and the Google doc — links at the top of this post. With thanks, as always, to Myles Horton and Paulo Freire: "[We make the road by walking [https://edtechbooks.org/-QU]](https://edtechbooks.org/-QU)".

# Open education, open learning, open pedagogy, OER, OEP…

> **Open learning** is an imprecise phrase to which a range of meanings can be, and is, attached. It eludes definition.

But as an inscription to be carried in procession on a banner, gathering adherents and enthusiasms, it has great potential. For its very imprecision enables it to accommodate many different ideas and aims. (MacKenzie, 1975 in Keegan, 1990)

**Open education** in America is a manifest part of the liberal politics and the reform rhetoric that helped define an era in our recent history. The **open classroom** approach "arrived" in this country in the late sixties. As methodology, we primarily imported it from England, known widely as the Leicestershire Model, or the Integrated Day, or simply the informal classroom. A series of articles in 1967 by Joseph Featherstone in The New Republic ably publicized the innovative British practices, and educators like Lillian Weber made notable efforts to analyze and adapt them to American settings. (Mai, 1978)

Part of the problem of definition stems from the careless, if evocative, use of the term **open** by educators and the popular press to describe the wide variety of educational innovations which proliferated at the same time as open education classrooms were being developed. (Noddings & Enright, 1983)

Definition of **open learning**: increased flexibility and user choice over all aspects of the learning process. (Lewis, 1992)

The approach of the authors is based on the **pedagogy of dialogue** of Paulo Freire. Its aim is to point out some indications to establish a digital inclusion that transcends utilitarian limits and a merely operational access to machines and programs. That is, an inclusion

that is also social, cultural, and political. (Corney, 2006)

New literacy practices are aligned with an "**open pedagogy**" that embraces collaborative knowledge creation, participatory education models, experiential practices, mentoring, and apprenticeships. (Corney, 2006)

The expanding global collection of open educational resources... contribute to making education more accessible, especially where money for learning materials is scarce. They also nourish the kind of participatory culture of learning, creating, sharing and cooperation that rapidly changing knowledge societies need. However, **open education** is not limited to just **open educational resources**. It also draws upon **open technologies** that facilitate collaborative, flexible learning and the **open sharing of teaching practices** that empower educators to benefit from the best ideas of their colleagues. It may also grow to include new approaches to assessment, accreditation and collaborative learning. (Cape Town Open Declaration, 2007) [www.capetowndeclaration.org](https://edtechbooks.org/-Ghf) [https://edtechbooks.org/-Ghf]

The historically more certain boundaries – where information and communications were controlled by universities – is being lost. Institutions are struggling to make sense of how to operate in this changed and permeable space. The mind sets and frameworks of references that we have used hitherto are no longer adequate. Many boundaries have blurred: virtual and physical localities, professional and social lives, formal and informal learning, knowledge consumption and production. (Armstrong & Franklin, 2008)

A participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing creations, and some type of informal mentorship whereby experienced participants pass along knowledge to novices. In a participatory culture, members also believe their contributions matter and feel some degree of social connection with one another. (Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009)

'**Open pedagogy'** approaches involving collaborative, co-productive and more 'equal' roles between 'teacher' and 'learner' than hitherto implemented are both possible and made more effective by social networking technologies and social networking environments. (Cullen, Cullen, Hayward, & Maes, 2009)

While acknowledging the potential value of content, we contend, however, that it is the opening up of educational processes, which we are calling **Open Pedagogy** (OP) enabled by the Web 2.0 technologies that are set to play the more transformational role in the collaboration between students and lecturers… Even if the technological infrastructure exists to allow materials to be a button-click away, unless lecturers are willing to share their materials or pedagogy, the technological affordance will remain unrealised… the sharing of the pedagogical process, what we see as 'open pedagogy'. (Hodgkinson-Williams & Gray, 2009)

The concept of '**open pedagogy'** (Hodgkinson-Williams & Gray 2009) is in line with Conole's definition of '**open educational practices' (OEP)**… "the set of activities and support around the creation, use and repurposing of Open Educational Resources. It also includes the

contextual settings within which these practices occur"... The move to incorporate 'practice' in the definition signifies the acknowledgement that content disembedded from its context is difficult to adapt without some understanding of the pedagogical and epistemological assumptions underlying the creation of the resource. The latter are of particular import as different views on what is considered 'worthwhile knowledge' are likely to increase with the ready access to materials from different parts of the world. (Hodgkinson-Williams, 2010)

**Open teaching** is described as the facilitation of learning experiences that are open, transparent, collaborative, and social. Open teachers are advocates of a free and open knowledge society, and support their students in the critical consumption, production, connection, and synthesis of knowledge through the shared development of learning networks. (Couros, 2010)

**OEP** are defined as practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path. OEP address the whole OER governance community: policy makers, managers/ administrators of organisations, educational professionals and learners. (Andrade et al., 2011)

Open educational practices, in light of JISC's case studies and the Capetown declaration, seem to encompass all of the following: production, management, use and reuse of **open educational resources**; Developing and applying **open/public pedagogies** in teaching practice; **open learning** and

gaining access to open learning opportunities; practising **open scholarship** [https://edtechbooks.org/-GYk] to encompass open access publication, open science and open research; **open sharing** of teaching ideas and know-how; and using **open technologies** (web-based platforms, applications and services) in an educational context. (Beetham, H., Falconer, I., McGill, L., & Littlejohn, A., 2012)

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## Suggested Citation

*Cronin, C. (2019). Opening Up Open Pedagogy. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/opening_up*

# Open Pedagogy and a Very Brief History of the Concept

## Tannis Morgan

### Editor's Note

This was originally posted to [Tannis Morgan's blog \[https://edtechbooks.org/-vpo\]](https://edtechbooks.org/-vpo) on December 21, 2016.

The good folks at [#OER17 \[https://edtechbooks.org/-pqr\]](https://edtechbooks.org/-pqr) have accepted my conference proposal on our [University of Guadalajara faculty development program \[http://udg.theagoraonline.net\]](http://udg.theagoraonline.net), which I positioned in the proposal as an example of an open pedagogy approach to faculty development.  However the proposal acceptance is contingent on one thing:  it was noted that I don't define or link to any scholarly resources on open pedagogy, a very fair point and very useful feedback. And a bit sloppy on my part, if I'm quite honest.

This lead me down a rabbit hole this week, digging around for scholarly work on open pedagogy.  The big surprise – although probably not to Vivian Rolfe who [did a masterful job of a presentation at OpenEd16 \[https://edtechbooks.org/-fii\]](https://edtechbooks.org/-fii) this year [digging into some history of open \[https://edtechbooks.org/-mpB\]](https://edtechbooks.org/-mpB)  – is that the term open pedagogy dates back to the early 1970s, where it was actually quite a thing in Quebec and France.  But does it mean what we think it means?

One of the oldest references comes from Canada's own Claude

Paquette, who in this article from 1979 [https://edtechbooks.org/-BSt] states that open pedagogy has already been in place for almost 10 years, and lays out some foundational principles in his paper as well as this one from 2005 [https://edtechbooks.org/-HZN]. His 1995 paper talks about open pedagogy with a historical distance that can only be appreciated if you've embraced a novel idea and watched it succeed and fail simultaneously. Consider this passage for example:

> La nécessité d'une rupture avec la pédagogie encyclopédique charmait les plus progressistes et les plus innovateurs d'entre nous, alors que les tenants de la rénovation pédagogique ne cherchaient que quelques nouveaux trucs pour enjoliver la pédagogie de la bonne réponse sans en questionner les fondements et les pratiques.

> The necessary rupture with textbook pedagogy charmed the most progressive and most innovative of us, while those for pedagogical renewal were only looking for new techniques to liven things up without questioning the foundation and practices.    (my translation)

Paquette outlines 3 sets of foundational values of open pedagogy, namely:  autonomy and interdependence; freedom and responsibility; democracy and participation.  He goes into some detail about these, but us ed tech folks will recognize some of the themes – individualized learning, learner choice, self-direction, – to name a few.  He even talks about "open activities" as the big innovation in open pedagogy, whereby students simultaneously use  their multiple talents in learning situations, and this process of learning is "interactional" (aka social and connected).  For Paquette, open is very much about learner

choice, (albeit for him this is really about creating a classroom environment where this can be optimized).  Good stuff right?

Of course, this becomes much more fascinating if you consider the sociopolitical context in which these ideas were playing out.  Quebec had just experienced a cultural revolution [https://edtechbooks.org/-CJp] which lead to a rupture of the stronghold of the Catholic church on pretty much all of Quebec society, and from which emerged, among other things, an educational reform and establishment of a CEGEP system in Quebec [https://edtechbooks.org/-vpr] (tuition free post secondary colleges).  This is significant in that prior to this rupture, post secondary education was largely accessible only to the (English) elite, and public education pretty much ended at age 14.

Meanwhile in Europe, there were similar educational reform ambitions [https://edtechbooks.org/-qgA] and the language education world had embraced ideas of autonomy and self-direction in reaction to a number of sociocultural currents, which are nicely wrapped up for us in this 1995 article by Gremmo and Riley [https://edtechbooks.org/-ccAZ].  There are quite a few gems to consider in here in the context of how we talk about open and open pedagogy currently.  For example, the abstract starts us off with a bang in situating autonomy and self direction against a backdrop of:

> minority rights movements, shifts in educational philosophy, reactions against behaviourism, linguistic pragmatism,wider access to education, increased internationalism, the commercialization of language provision and easier availability of educational technology (p.151)

Plus ca change…

Another gem discusses the role of technology in facilitating autonomy:

> (4) Developments in technology have made an undeniable contribution to the spread of autonomy and self-success. The tape-recorder, the fast-copier, TV and the video-recorder, the computer, the photocopier, magazines, newspapers, fax and e-mail, all provide a rich variety of tools and techniques for the implementation of self-directed learning. In institutional terms, the facilities have been gathered together to form the resource centres (mediatheques, sound libraries, etc.) which will be discussed below. However, experience shows that the price of autonomy is eternal vigilance: there is a strong and repeated tendency for the introduction of some new technology by enthusiastic "technicians" to be accompanied by a retrograde and unreflecting pedagogy. A grammar drill on a computer is still a grammar drill and if learners are given little choice (or no training, which comes to the same thing) then it is a travesty to call their programmes "self-directed". (p. 153)

Again, some familiar themes are discussed in this article: flexible learning, vast increases in university population, wider access to education, internationalism, commercialization.

So how does this compare to the foundational principles on which the current open pedagogy movement rests? At the moment, the current strand of open pedagogy seems to be defined by its use and creation of open materials. Consider for example [this description from the OE consortium [https://edtechbooks.org/-hRhD]](https://edtechbooks.org/-hRhD).

Or this poster for an event at CUNY.

Or this blog post from David Wiley, [https://edtechbooks.org/-Frx] where he discusses the disposable assignment.

In other words, open pedagogy is currently a sort of proxy for the use and creation of open educational resources as opposed to being tied to a broader pedagogical objective.  Of course, this isn't to say that the OER movement lacks foundational values and broader objectives – if anything, so much of the 1970s open pedagogy and autonomy world seems to resonate.   In fact, I find it quite fascinating that the authors of this post on the 8 qualities of open pedagogy [https://edtechbooks.org/-sob] seem to arrive at a similar place as our 1970s counterparts.  But it does raise the question as to whether we are being ambitious enough in our articulations and aspirations for open pedagogy.  And to Vivian Rolfe's point made at OpenEd 16, are we are paying enough attention to voices of the past?

## Suggested Citation

*Morgan, T. (2019). Open Pedagogy and a Very Brief History of the Concept. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/open_pedagogy*

# International Something: Why You Should Care #DigPed

Maha Bali, Kate Bowles, & Paul Prinsloo

## Editor's Note

This was originally posted to [Maha Bali's blog](https://edtechbooks.org/-ZEy) on August 10, 2016.

*This article was co-authored over THREE timezones, by Maha Bali (in Cairo, Egypt), Kate Bowles (in Wollongong, Australia) and Paul Prinsloo (South African currently in Virginia, USA) and refers to a workshop we are co-facilitating at the* [Digital Pedagogy Lab Institute in UMW](https://edtechbooks.org/-QzY) [https://edtechbooks.org/-QzY]*. You can watch live (or recorded) at* [this YouTube link](https://youtu.be/womry8IGJJY) [https://youtu.be/womry8IGJJY] *(we hope YouTube works or at least streams well enough in your country). The workshop takes place Thursday August 11 at 4pm EDT (*[Virtually connecting website converts to your timezone](https://edtechbooks.org/-Sfu) [https://edtechbooks.org/-Sfu] *– because we know we all live in different timezones – it will already by Friday for Kate!)*

Yesterday, in a [Virtually Connecting conversation, Ken Bauer commented](https://youtu.be/mtfz6C5CG0Q) [https://youtu.be/mtfz6C5CG0Q] on having virtual participants located in Mexico, Austria, South Africa and Egypt, compared to a regular VC hangout where most people were usually from the US. He asked how we could create more such conversations. Audrey Watters commented on the importance of this given the limited US-centric views of ed tech. Jesse Stommel and Maha Bali talked about intentionality: recognizing the importance of internationalism and acting upon it are very different things.

A while ago, Digital Pedagogy Lab co-directors Jesse Stommel and Sean Michael Morris asked Maha to create a hybrid workshop for DPLI UMW on "something international", to invite other facilitators and organize it however she saw fit. This invitation is encouraging: it recognizes the value of having international voices be part of such an intensively local event, with the freedom to speak for themselves, including in quite critical ways.

Maha invited Paul Prinsloo from South Africa (who will be onsite) and

Kate Bowles from Australia (who like Maha will be a virtual participant). Working in various-sized education systems outside the US we're all familiar with complications of wrangling international digital pedagogy out of faulty internet connections, language confusion, and above all timezone mismatches. This is also the infrastructure of our research and professional networking; for us, working as academics means international-first, not as an afterthought. So we responded enthusiastically.

Our collaboration in developing this workshop has itself been about the practicalities of working internationally. Sometimes we've all been online at the same time; just as often we've left messages for each other to find on waking up or getting to work. And while doing this, we've learned about each other's work schedules, life histories and work spaces, as we've become sensitised to the work-life rhythms of our three lives. We use some but not all of the same channels, so even our three-way conversation isn't completely contained anywhere. We don't use the same digital devices and this has had a surprising impact on how we each work when we're away from our desks. We can work together in English, but we've had to look things up to fully understand their meaning. And even though we're familiar with each other's work, it turns out we're still unfamiliar with important elements in each other's political, cultural and national context.

Since 2012 critical educators have been hearing regularly about how open digital pedagogy or social networking expands access to learning to everyone in the world. This is now such a familiar claim that we don't need to name the edtech visionaries and entrepreneurial capitalists who've been relentlessly promoting it—it has become a defining truism in digital pedagogy. However, for most of us *not* in the US (or the UK), this vision has often signalled top-down, US-to-world, Anglo-oriented, decontextualized, culturally irrelevant, infrastructure-insensitive, and timezone-ignorant aspirations, even when the invitation for us to join in may be well-intentioned.

We want to rethink this one-way flow of benefits, and argue instead that all learning is enriched when we have the opportunity to hear from voices markedly different from our own. We want to suggest that when US culture and educational systems are the default for MOOCs and similar platforms, international voices are exoticized, marginalized and silenced at once. We also want to challenge the tendency to call something "global" when only two or three countries are involved, often including only participants from powerful institutions, and everything is in English.

But even for those learners/educators outside the US who do have both the internet and the English to participate, there are power dynamics that need to be made explicit. Whenever you connect online, you connect on someone's terms, and in digital pedagogy these are often the terms designed by educators who enjoy the network infrastructure and cultural capital associated with US institutions. And while overcoming technical access barriers to the internet is critical for learners around the world, access on US terms or to spaces and platforms controlled by US assumptions can often introduce new *cultural* barriers for learners outside the US. Being more sensitive about these issues also allows us to recognize the fact that we often disregard issues of access and the different cultural and class barriers and the (in)visible fault-lines of race, gender and class in the US.

Our workshop is therefore an attempt to talk openly about how things look like from our respective non-US perspectives. We'll be sharing case studies of our own experiences that will demonstrate different angles on the complexity of transnational education. And we will invite participants (onsite and virtually) to consider ways to build more inclusive networked learning experiences. While we are talking particularly about networked learning, much of what we discuss will apply to both onsite and online international learners and teachers.

We also recognize that inclusivity and cultural relevance are not

unique to international learners, but connect to issues of identity and difference that are pressing within the US. There are learners inside the US for whom language or technology access are immediate practical barriers; and learners whose experience is continually affected by educators with a poor understanding of their cultural context or their personal priorities.

And this is why after one hour of discussing internationalness, we will have a hallway conversation with Annemarie Perez, Chris Gilliard (both onsite) and Sherri Spelic (virtually) on how identity and difference shape their practice in digital pedagogy.

If you can't come to our workshop, we encourage you to read this article by Maha [https://edtechbooks.org/-gQv] which is detailed but not very long case study on the shortcomings of an attempt at global learning). But we hope you can join us, as we explore what can be achieved in a three-timezone workshop relying on a network of regional and domestic internet technologies.

You can watch the workshop live here:

And the hallway conversation following it here:
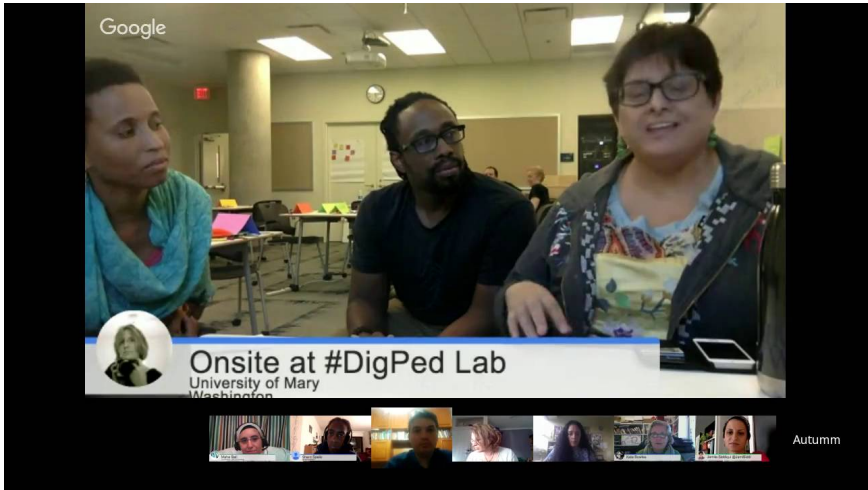
And we will be working on a Google doc if you can't be part of the live session but would like to contribute: http://bit.ly/inclusiveDigPed

## Suggested Citation

*Bali, M., Bowles, K., & Prinsloo, P. (2019). International Something: Why You Should Care #DigPed. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/digped*

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(2) do not use it for commercial gain.

# Does Open Pedagogy Require OER?

## Clint Lalonde

### Editor's Note

This was originally posted to [Clint Lalonde's blog \[https://edtechbooks.org/-aqU\]](https://edtechbooks.org/-aqU) on February 4, 2017.



Photo: [BCOER Librarians \[https://flic.kr/p/pApYVu\]](https://flic.kr/p/pApYVu) by [BCcampus_news \[https://edtechbooks.org/-VZN\]](https://edtechbooks.org/-VZN) [CC-BY-SA \[https://edtechbooks.org/-UBt\]](https://edtechbooks.org/-UBt)

I recently had the opportunity to attend a student showcase [https://edtechbooks.org/-bZe] of Digital Humanities projects, put on by the Digital Pedagogy Network. The Digital Pedagogy Network is a collaborative project between the University of Victoria and Simon Fraser University.

The context of the event was to give Digital Humanities students an opportunity to showcase the DH projects they have been working on to fulfill the requirements of their various undergrad/graduate level DH programs at UVIC and SFU. I am grateful to SFU Digital Scholarship Librarian (and Whitecaps soccer fan) Rebecca Dowson [https://twitter.com/Reb_D] for suggesting that I attend. I am very happy that I did.

First and foremost, the student projects are fantastic. These are students that are working hard to capture and preserve significant, but often overlooked, pieces of our cultural heritage, like the Fred Wah [http://www.fredwah.ca/home] archives. Fred Wah is a Canadian writer and Parliamentary Poet Laureate. His online archive is a DH project by English student Deanna Fong [https://edtechbooks.org/-dIQ]. Then there is the Wosk–McDonald Aldine Collection [http://press.ccsp.sfu.ca/] a digital preservation project being worked on by DH students and made available on the open web which celebrates the work of Aldus Manutius, "the Renaissance's most innovative scholarly publisher". There is a curated

digital exhibition [https://edtechbooks.org/-fPI] that explores authorship and readership of Victorian-era pornography created by BA students Erin Huxley, Keirsten Mend, Donna Langille and Leah de Roy, and a cultural mapping [https://edtechbooks.org/-zu] exhibition of the legends that are included in E. Pauline Johnson's 1911 text, *Legends* of *Vancouver*, which is based on the narratives of Chief Joe Capilano of the Squamish nation (and which prompted a great discussion around the tensions involved with non-Indigenous people researching and mapping Indigenous territories).

All of these educational resources, created by students and available on the open web. But none openly licensed.
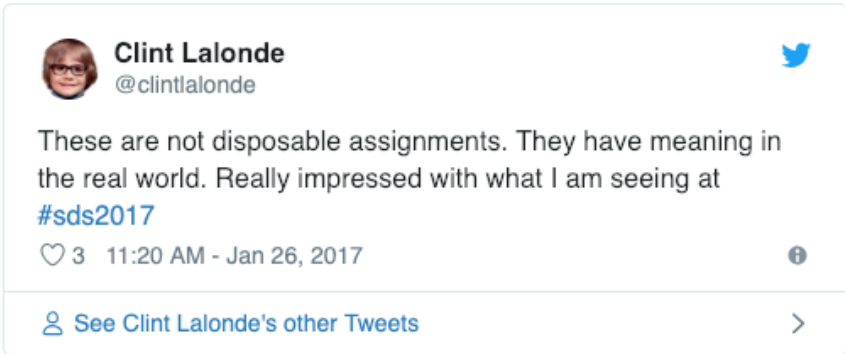
Which made me consider open pedagogy and the way in which open pedagogy is defined. Granted, that term "open pedagogy" is fairly new and evolving. My first exposure to the term was in a 2013 (was it really 4 years ago?) blog post [https://edtechbooks.org/-ysk] from David Wiley where David defines open pedagogy as being directly connected to the (at the time) 4R permissions of OER (emphasis mine).

> Open pedagogy is that set of teaching and learning practices only possible in the context of the free access **and 4R permissions characteristic of open educational resources**.

So, with that definition, the assignments that these students have done are not open pedagogy. While some of them do use open access resources (mostly public domain resources), none of the students have released their material with an open license, and, in fact, some resources [https://edtechbooks.org/-auw] are made available with full copyright and only under academic fair use policy.

But yet publicly available. On the open web. Students working on the

open web, on meaningful projects.



Clint Lalonde
@clintlalonde

These are not disposable assignments. They have meaning in the real world. Really impressed with what I am seeing at #sds2017

♡ 3   11:20 AM - Jan 26, 2017

See Clint Lalonde's other Tweets

But yet, not open pedagogy, at least by David's definition.

Which made me wonder: is open pedagogy only possible if the work by a student meets the 5R open licensing criteria? Or is what makes open pedagogy open is that students are working in the open with their work on display to the world? Is that the defining feature of open pedagogy?

Don't get me wrong. Encouraging students to release meaningful and significant work they do with an open license is the best possible outcome as it enables the widest possible distribution and application of their work. But if a student creates a meaningful piece of work and simply makes it open access on the web without actually assigning and open license to the work, does that make it a less meaningful and impactful open pedagogy experience?

To the students who created these projects, I would say the answer is no. In a Q&A I asked them to talk about working in the open and how they felt as students to have their work in the open and view-able to the world.  Their responses were that they felt it was important to have their work in the open; that they felt the work they were doing

needed to be open and accessible to the wider world, and the world needed to know about this work. Not one said the reason they wanted their work open was to have it reflect favourably on them, or that it would look good as part of a digital resume/portfolio. They felt an urgency that their subject matter be made available to the broader pubic.  It mattered to them, and that motivated them. They wanted to do justice to their subject matter.

To me, this is open pedagogy. The motivation that it gives to students that what they do matters in the world. That they are contributing to something bigger and greater than themselves. That the work is meaningful. Yes, it would have an even greater impact if this work was released with an open license, but the fact that this work is not openly licensed doesn't make it any less of an open pedagogy exercise to me.

As I was expressing this point on Twitter, Tannis  Morgan at the JIBC sent me a link to a [wonderful blog post \[https://edtechbooks.org/-vpo\]](https://edtechbooks.org/-vpo) she wrote that made me realize that, despite having a French-Canadian last name, I should have paid closer attention to French class.  In the post, Tannis digs into the history of the term open pedagogy and finds traces of it in the linguistic culture wars of a 1979 Canada with Quebec educator named Claude Paquette.

> Paquette outlines 3 sets of foundational values of open pedagogy, namely:  autonomy and interdependence; freedom and responsibility; democracy and participation.

In her post, Tannis wraps up with an astute observation

> In other words, open pedagogy is currently a sort of proxy for the use and creation of open educational resources as opposed to being tied to a broader

pedagogical objective.

Which begs the question; what is the broader pedagogical objective of open pedagogy? Does open pedagogy only exist when it is connected to the use and production of OER's?

**Addendum:** After I wrote this, I realized that I had read an [excellent 2014 interview \[https://edtechbooks.org/-XCX\]](https://edtechbooks.org/-XCX) with [Tom Woodward \[http://tomwoodward.us/\]](http://tomwoodward.us/) in Campus Technology where Tom spoke at length about open pedagogy as a broad and holistic set of values and approaches.

> Looking at open pedagogy as a general philosophy of openness (and connection) in all elements of the pedagogical process, while messy, provides some interesting possibilities. *Open* is a purposeful path towards connection and community. Open pedagogy could be considered as a blend of strategies, technologies, and networked communities that make the process and products of education more transparent, understandable, and available to all the people involved.

I think this holistic view of open pedagogy as a messy space where the values of openness inform teaching and learning practices is one that appeals to me.

## Suggested Citation

*Lalonde, C. (2019). Does Open Pedagogy Require OER? In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/open_pedagogy_and_oer*

# Pragmatism vs. Idealism and the Identity Crisis of OER Advocacy

Rajiv Jhangiani

**Editor's Note**

This was originally posted to [Rajiv Jhangiani's blog](https://edtechbooks.org/-xgL) on February 15, 2017.

*In a couple of weeks I will be in Cape Town, [presenting at the 2017 OE Global Conference](https://edtechbooks.org/-mpN). This blog post is a preview of some of the ideas I will discuss during my talk (which shares the title of this blog post). A longer version of this post is currently under review in [Open Praxis](https://edtechbooks.org/-tSm).*
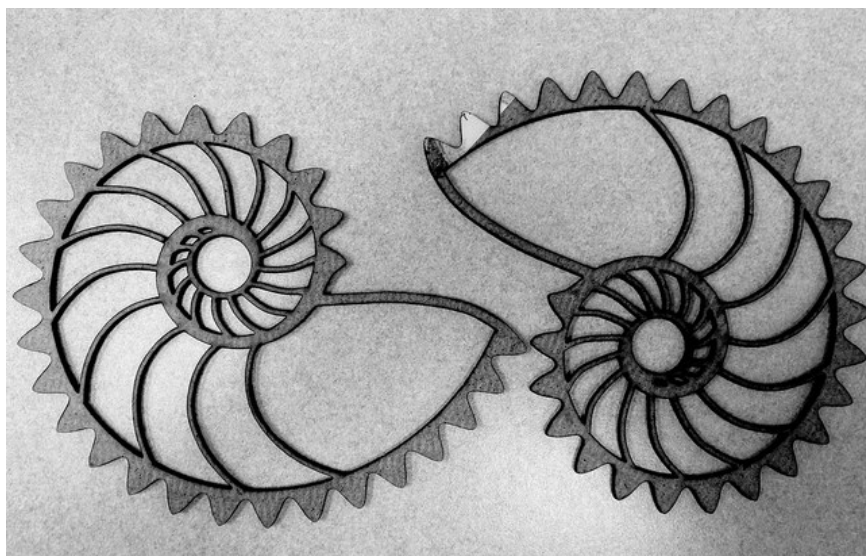
Funny Gears by Alan Levine (CC-BY 2.0)

The open education movement has made and continues to make great strides, with the creation, adaptation, and adoption of OER slowly but surely [becoming mainstream practice \[https://edtechbooks.org/-XdF\]](https://edtechbooks.org/-XdF). However, as the adolescent OE movement enters a growth spurt that may see its use as primary courseware [triple within five years \[https://edtechbooks.org/-DPkH\]](https://edtechbooks.org/-DPkH), some noticeable paradoxes have emerged that hint at an identity crisis within the OE movement and, in particular, within OER advocacy.

# Free vs. Freedom

Open education advocates customarily define OER as "[beyond free \[https://edtechbooks.org/-gXV\]](https://edtechbooks.org/-gXV)," based on the permissions to reuse, revise, remix, retain, and redistribute these resources. However, in practice, OER advocacy often centres on the unaffordability of commercial textbooks and the cost savings associated with the adoption of open textbooks (i.e. merely "free"). On the one hand, this

appears appropriate, even pragmatic, given the significance of the burden of student loan debt in North America and [the impact of escalating textbook costs \[https://edtechbooks.org/-Le\]](https://edtechbooks.org/-Le) on students' educational choices and outcomes. Moreover, textbooks are a familiar entity to academics, and, unlike with tuition fees and costs of living, faculty control adoption decisions and consequently the cost of required course materials. At the same time, this narrow focus on cost savings is immediately less relevant in countries where faculty are less reliant on expensive textbooks. In fact, it may not even be pragmatic in North America, as [recent research \[https://edtechbooks.org/-XdF\]](https://edtechbooks.org/-XdF) shows that the cost of resources is among the least-considered factors for U.S. faculty when assigning required course materials. Moreover, although a cost-savings framing appeals most directly to student groups, as pointed out it is faculty who control adoption decisions. Finally, framing OER in terms of zero cost (one among many implications of open licensing) may unintentionally constrain the use of the permissions that come along with OER and disengage faculty from the opportunity to move away from bending their courses onto the structure of a textbook. Indeed, faculty who reuse, redistribute, and retain OER (themselves a minority) continue to greatly outnumber those who revise and remix OER, a pattern that may be perpetuated through the best of intentions of OER advocates. [As Weller and his colleagues put it \[https://edtechbooks.org/-JXh\]](https://edtechbooks.org/-JXh):

> *if cost savings were the only goal, then OERs are not the only answer. Materials could be made free, or subsidized, which are not openly licensed. The intention behind the OER approach is that it has other benefits also, in that educators adapt their material, and it is also an efficient way to achieve the goal of cost savings, because others will adapt the material with the intention of improving its quality, relevance or currency. (pp. 84-85)*

# Evolution vs. Revolution

OER advocates often highlight the advantages of the internet and digital technologies, especially as they enable the marginal cost of reproduction and distribution of educational resources to approach zero. However, the OER movement itself continues to grapple with questions from a pre-digital past, such as the responsibility of updated editions of open textbooks and the development of ancillary materials such as question banks. Although OER funders may (rightly) consider these matters stumbling blocks which, if not addressed, would inhibit uptake, employing the language of the commercial textbook industry runs the risk of dragging along a traditional mindset based on the top-down delivery of static and (falsely) scarce information. This begs a broader question: If open educational practices are a game changer, why are OER advocates playing by the rules of the commercial textbook industry?

Framing OER as free, digital versions of expensive print textbooks also risks playing directly into the hands of commercial textbook publishers who are in the midst of a pivot [https://edtechbooks.org/-jJb] away from a business model based on selling "new editions" of print textbooks every three years to one based on leasing 180-day access to digital content delivery platforms. As post-secondary administrators begin to more seriously consider the social and fiscal consequences of high textbook costs, it will be tempting for them to capitulate to aggressive sales pitches from publishing coalitions that exchange faculty choice and student agency for slightly discounted digital textbooks. In order to avoid the most effective arguments of OER advocates being further co-opted by commercial publishers (e.g., see this product brochure [https://edtechbooks.org/-RKW] from Pearson Education for their digital platform that cites data on the impact of OER adoption on student outcomes) and especially to realize the full potential of OER, the goal posts must be placed further than simply cheaper textbooks. As Robin DeRosa [https://edtechbooks.org/-HFz], an open educator

who clearly favours revolution over evolution, puts it, "Fundamentally, I don't want to be part of a movement that is focused on replacing static, over-priced textbooks with static, free textbooks."

## Resources vs. Practices

The tensions between cost savings and textbooks on the one hand and the affordances of open licenses and digital technologies on the other are manifested by contrasting emphases on OER vs. open educational practices (OEP). The latter is a broader, superordinate category that encompasses the adoption of OER and even open course design and development, but which places pedagogy (and therefore students) at its core. OEP most often manifests in the form of course assignments in which students update or adapt OER [https://pm4id.org/] (e.g., with local examples or statistics), create OER [https://edtechbooks.org/-RUD] (e.g., instructional videos or even test questions), or otherwise perform scaffolded public scholarship [https://edtechbooks.org/-vCLS] (e.g., writing op-ed pieces or annotating readings on the open web). Crucially, adopting OEP requires more of a shift of mindset than does adopting OER, more critical reflection about the roles of the instructor and the student when education continues to be based on content consumption rather than critical digital literacy despite information (and misinformation) being abundant. As David Wiley writes in his blog [https://edtechbooks.org/-HWz] (albeit with the byline "pragmatism over zeal"), "when faculty ask themselves 'what else can I do because of these permissions?', we've come within striking distance of realizing the full power of open."

Happily, advocating for OEP avoids the problem of inadvertently striking a judgmental tone when describing non-OER users (who may have excellent reasons supporting their choice [https://edtechbooks.org/-Chj]) because discussions about innovation are not driven by guilt or avoidance. Rather, OEP articulates a vision

of education that is aspirational and driven by an approach motivation. Within this broader vision, significant cost savings to students are the *least* significant benefit of OER.

# Idealism vs. Pragmatism

The psychologist Erik Erikson articulated an [eight-stage theory of psychosocial development [https://edtechbooks.org/-Qvo]](https://edtechbooks.org/-Qvo) that centered on an adolescent crisis between identity and role confusion (1956). During this stage, which persists through the college years, the adolescent begins to struggle with questions about who they really are and what they hope to achieve.

Although Erikson developed his theory to better understand lifespan development within individuals and not social movements, it is difficult to ignore the parallels between the tensions of an adolescent OE movement and the adolescent identity crisis that he described. Specifically, I believe that the frictions described above between "merely free" and "beyond free," resources and practices, and evolution and revolution are each symptomatic of a psychosocial crisis within the OE movement that pits pragmatism against idealism.

Although OER advocates may understand and even experience both impulses, their goals and strategies often reflect one or the other. For example, whereas idealists push for for radical change that questions the status quo, pragmatists seek to build incrementally on the status quo. Whereas idealists might work through collaborative networks such as faculty learning communities, pragmatists might work to create grant programs for individual faculty to create, adapt, or adopt OER. And whereas idealists emphasize student-centered, personalized solutions that foreground process and agency, pragmatists emphasize instructor-centered turnkey solutions that foreground content and efficiency**.**

Outlined like this, it is easy to recognize the merits of both strategies.

Indeed, idealists would do well to recognize that open textbook adoption tangibly benefits students in material and educational terms that are not insignificant. On the other hand, pragmatists might recognize that the idealistic approach is appealing to those for whom the construct of a traditional textbook is a dinosaur best served by a meteor strike (and can therefore can be pragmatic).

# An Integrative Solution to the Crisis

Given that Erikson believed that the individual could not be understood in terms that were separate from his or her social context (1959), I believe the key to resolving this crisis lies with an integrated approach that is sensitive to the diversity across and within the audiences whom we seek to serve.

[As I have written elsewhere [https://edtechbooks.org/-HtB]](https://edtechbooks.org/-HtB):

*For faculty who enjoy experimenting and innovating, open textbook adoption does feel like a meagre position to advocate. These are instructors who care deeply about authentic and open pedagogy, who may take full advantage of the permissions to revise and remix, and who understand that adopting OEP is really just about good pedagogy and in that sense is not at all radical.*

On the other hand,

*there are faculty who currently adopt high-priced, static textbooks but care enough about their students to feel guilty about this decision (principled agents in a principal-agent dilemma). In at least some of these cases, the ensuing guilt leads them to bend the course to map onto the textbook, which, while not an example of great pedagogy, could be construed as an empathic response that ameliorates both their guilt and their students' resentment. This is . . . where the social justice case for open textbooks may resonate particularly well.*

[According to Weller and his colleagues \[https://edtechbooks.org/-JXh\]](https://edtechbooks.org/-JXh), there are three categories of OER users:

1) The OER active are

*engaged with issues around open education, are aware of open licenses, and are often advocates for OERs . . . An example of this type of user might be the community college teacher who adopts an openly licensed textbook, adapts it and contributes to open textbooks. (pp. 80-81)*

2) OER as facilitator

*may have some awareness of OER, or open licenses, but they have a pragmatic approach toward them. OERs are of secondary interest to their primary task, which is usually teaching . . . Their interest is in innovation in their own area, and therefore OERs are only of interest to the extent that they facilitate innovation or efficiency in this. An example would be a teacher who uses Khan Academy, TED talks and some OER in their teaching. (p. 82)*

3) Finally, OER consumers

*will use OER amongst a mix of other media and often not differentiate between them. Awareness of licences is low and not a priority. OERs are a "nice to have" option but not essential, and users are often largely consuming rather than creating and sharing. An example might be students studying at university who use iTunes U materials to supplement their taught material. For this type of user, the main features of OERs are their free use, reliability and quality. (p. 85)*

This taxonomy serves as a useful guide to OER advocates seeking to diversify or tailor their outreach strategy. For instance, OER consumers may be most interested in open textbooks and related ancillary resources that can be deployed with little or no effort. For this group, unfettered access for their students is highly desirable,

with cost savings a nice bonus. On the other hand, the OER active group will be more sensitive to the impact of cost savings while also keen to learn more about the permissions to revise and remix OER. Finally, those in the OER as facilitator group will be excited by the potential to involve students in the creation or adaptation of OER via renewable assignments. Of course, this is far from an exhaustive list of strategic possibilities and only aims to illustrate the mechanics of an integrative approach.

Despite its merits, it would be naïve to believe that adopting an integrative approach would eradicate all tension within the OE movement. Idealists may continue to insist on the application of CC licenses that meet [the definition of "free cultural works."](https://edtechbooks.org/-dop) Pragmatists, on the other hand, will acknowledge that OER creators may have reasonable grounds for including a Noncommercial (NC) or even a NoDerivatives (ND) clause, even though an Attribution-only license (CC-BY) facilitates the maximum impact of OER. Pragmatists may also want to first ensure basic access for all whereas idealists may think it arrogant to insist that students first need access to required resources before partnering in pedagogical innovation. But while these tensions will not disappear, I believe it essential that we recognize both drives and have a deliberate, nuanced conversation about how best to harness both idealism and pragmatism in service of the goals of the OE movement.

# So What's Next?

In Erikson's lifespan theory, the stages that follow adolescence pit intimacy against isolation (young adulthood), generativity against stagnation (middle adulthood), and, finally, integrity against despair (later adulthood). If these at all suggest a trajectory for the OE movement beyond its current adolescence, its advocates should aim for the next phase to involve a lot more collaboration among faculty

and students, both across institutions and cohorts. This shift will require tools that support radically transparent collaboration (e.g., see the [Rebus Community for Open Textbook Creation [https://forum.rebus.community/]](https://forum.rebus.community/)) but especially a break from traditional (opaque, territorial, top-down) approaches to curriculum design and development. As the proverb says, "if you want to go quickly, go alone. If you want to go far, go together."

Greater collaboration and a true democratization of the process of OER development will in turn engender a move away from philanthropic, government, and other unsustainable funding models in favour of a grassroots-based, community-driven, self-sustaining approach that [resembles a bazaar [https://edtechbooks.org/-Kj]](https://edtechbooks.org/-Kj) in its connectivity and generativity far more than it does a cathedral.

Achieving this, while neither easy nor assured, is a necessary step for the OE movement on its path to becoming more critical, more self-aware, and more inclusive of a diversity of voices. In other words, a movement characterized by integrity, not despair.

## Suggested Citation

*Jhangiani, R. (2019). Pragmatism vs. Idealism and the Identity Crisis of OER Advocacy. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/oer_identity*

# Open Ends?

## Brian Lamb

### Editor's Note

This was originally posted to [Brian Lamb's blog \[https://abject.ca/open-ends/\]](https://abject.ca/open-ends/) on April 3, 2015.

In the run-up to her keynote for the [OER15 Conference \[http://oer15.oerconf.org/\]](http://oer15.oerconf.org/)—  which I hope to see in person — [Sheila MacNeill asks for examples \[https://edtechbooks.org/-amD\]](https://edtechbooks.org/-amD) and ideas concerning the "mainstreaming" of OER and open educational practice in higher education. I'm really looking forward to seeing how Sheila ends up addressing the question, following on [important questions \[https://edtechbooks.org/-Twp\]](https://edtechbooks.org/-Twp) and valuable [reality checks \[https://edtechbooks.org/-RLi\]](https://edtechbooks.org/-RLi) she's already presented.

As I mulled over a few ways of responding to her query [*I started this post weeks ago*], I happened to read [Tony Hirst's statement of Academic Philosophy \[https://edtechbooks.org/-LKj\]](https://edtechbooks.org/-LKj). I was particularly struck by Tony's definition of open practice: "driven by the idea of learning in public, with the aim of communicating academic knowledge into, and as part of, wider communities of practice, modeling learning behaviour through demonstrating my own learning processes, and originating new ideas in a challengeable and open way as part of my own learning journey."

Tony's statement frames the benefit of open practice as something

that is publicly engaged, that broadens the impact of academic works, and that brings long-held ideals of scholarship up to date to utilize the contemporary environment. I suspect most attendees of OER15 understand these benefits, and have first-hand experiences of them. So maybe I am bashing a straw man when I contrast Tony's statement with so much of our rhetoric, where just getting something to "open" seems to be the end goal in itself. That if we can just get a Creative Commons license (without that nasty NC clause, natch...) on more materials, surface more research and learning on the open web, then we will have at that point found success. I support those goals myself, and happily work to promote and implement them. They are very good things to do and they result in real benefits [https://edtechbooks.org/-uFV].

That said, imagine you are someone who has not had an amazing experience of openness [https://edtechbooks.org/-vVv]. You are a practitioner with head down, dealing with the professional and personal pressures most of us are fighting through. What benefits are offered by "going open"? I think for most people the first words that pop into mind with a proposed move to open are "hassle", "uncertainty" and "more work".

I came to open education as something of a refugee, fleeing the wreckage of misguided Learning Objects projects in which the goals of sharing and collaboration were torpedoed by notions of control, ownership and exclusion. I struggled with Learning Object Repositories and Learning Management Systems, while at the same time was truly having enlightening rewarding fun amongst a loose nascent network of educational bloggers [https://edtechbooks.org/-qQr]. The pragmatic advantages of "just sharing" [https://edtechbooks.org/-zGTn] were so obvious. It still baffles me how the serious people [http://abject.ca/tamed/] in the field could not see them. Then there was the human side... I could feel the joy and energy of organic emergent practices in my bones.

I started to gravitate to the open education movement because there were people there who also felt this way. There were plenty of serious people in the movement as well, and it seemed to me that while OER made progress on the intellectual property problems we repeated the fundamental errors of Learning Objects in many other respects. Maybe that's why I've thought of open as a necessary condition or means, but nothing like the desired end.

It does not help here in 2015 that "open" has been used in so many ways that it may not even function as a viable term anymore. In the opening chapter of *The Battle for Open* [https://edtechbooks.org/-ymw], Martin Weller outlines one of the most problematic points of demarcation:

> …for many of the proponents of openness its key attribute is about freedom – for individuals to access content, to reuse it in ways they see fit, to develop new methods of working and to take advantage of the opportunities the digital, networked world offers. The more commercial interpretation of openness may see it as an initial tactic to gain users on a proprietary platform, or as a means of accessing government funding.

For a while, I thought one way to sharpen the value proposition of open to prospective allies would be to emphasize "freedom", to make "freedom" something more than an "attribute of openness". But I have to admit, when I've floated that idea to people in conversation nobody seems too enthused. "Freedom" is a term that carries its own baggage (I find it impossible to avoid using quote marks for "freedom" in 2015), and the word has already proven vulnerable to abuses and absurdities [https://edtechbooks.org/-Gub].

I know this post is muddled. You'd think that after more than a decade of living inside this space I'd have a little more focus. I really enjoyed Martin's book for that reason, as he lays out these contradictions with clarity, and even makes them read fresh to my tired eyes. Towards the

end of *The Battle of Open*, he outlines some credible outcomes likely to emerge from open practices, most of which should resonate with educators and their institutions. One is the ability for higher education to demonstrate its worth to society, as in "a digital, networked age, erecting boundaries around the institution is harmful because it speaks of isolation." Another is the development of literacies and practical skills that will be necessary for our graduates. "Open practice allows students to engage in the type of tasks and develop the type of skills they may need in any type of employment, without reducing a university education to merely vocational training." Authentic and experiential learning needs to embed openness when it comes to the development of these abilities. I would add that genuine engagement with networked practice is also essential if we hope as citizens to develop an informed worldview on issues such as privacy and surveillance, intellectual property, and the economic effects of digital disruptions — not to mention [coming to grips with the nature of digital communication itself \[https://edtechbooks.org/-Utv\]](https://edtechbooks.org/-Utv). And finally, while Martin is justifiably cautious about making extravagant claims of reduced costs, the [benefits here are real and demonstrable \[https://edtechbooks.org/-RgI\]](https://edtechbooks.org/-RgI).

I note that some kind of re-alignment of focus seems to already be underway. In 2015, we hear less about Open Educational Resources as a goal, and more about supporting open educational practice. I see that while the URL and hashtag of the conference remains "OER15" the opening sentence on [the conference website [https://oer15.oerconf.org/]](https://oer15.oerconf.org/) describes the event as this year's "Open Education Conference (OER15)". And what once was the OpenCourseWare Consortium's annual conference is now called the ["Open Education Global Conference" [https://edtechbooks.org/-QAu]](https://edtechbooks.org/-QAu). And the consortium itself has rebranded itself as the Open Education Consortium. (I hasten to add there is also that *other* [Open Education Conference [https://edtechbooks.org/-enZ]](https://edtechbooks.org/-enZ), which is back in Van Rock City this year.)

So I end my response to Sheila's query with a question of my own. Would the cause of open be better served if we go further in this direction, and stop talking about "open" as a goal and instead focus on using it as a tactic to support allies who care about authentic,

engaged, accessible, sustainable, and relevant public education?

## Suggested Citation

*Lamb, B. (2019). Open Ends? In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/open_ends*

# The Fallacy of 'Open'

## sava saheli singh

### Editor's Note

This was originally posted to sava saheli singh's blog [https://edtechbooks.org/-VWo] on June 27, 2015.

*[This is the text (and slides) of the presentation I gave at the HASTAC 2015 conference [http://www.hastac2015.org/] in East Lansing in May 2015. Please note that many links will take you directly to a pdf of the article referenced.]*

the fallacy of "open"

@savasavasava

[https://edtechbooks.org/-NBY]

My presentation today is part of a larger work-in-progress that is essentially my dissertation, and I want to share some ideas and questions about what we think of as "open" and what we're meant to think of as "open" and the ramifications of both of these positions. Just to set my presentation in the proper context, my research is on the role of Twitter in academic communities and scholarly work. While reading about, researching, and being part of scholarly communities online, I've had the time and opportunity to reflect a lot on the concept of "open", and how that has evolved for me, and others, over time.

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[https://edtechbooks.org/-HHh]

A note about my slides: I asked my Twitter community to tell me what "open" meant to them, and I will be showing some of those responses. Apologies to those whose tweets were not included here. All tweets were used with permission.

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[https://edtechbooks.org/-qsb]

There are some commonly used concepts in the "open" world:

- *Open access*: is access to scholarly work, freeing it from being behind paywalls.
- *Open source*: is free access to software and hardware, increasing potential for collaborative programming and creating hardware components.
- *Open data*: is free access to data, making it easier for the public to potentially understand larger patterns in specific contexts, and increasing transparency in use of said data.
- *Open content*: is free access to online content for reuse, revision, remix, and redistribution.

*Open* in all these contexts talks about *access to* rather than a way of being, but when we partake in any of these contexts, we're often

expected to be *open*. We can already see the built-in divides and the somewhat misleading implication of "access". For example, open data implies access to certain kinds of data, but without knowledge of how to use that data or what to do with it, it being "open" is of little use to us.

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[https://edtechbooks.org/-dTA]

When "they" created the internet, and I'm simplifying things a little here, it was with a view to creating an open and democratic space which would allow for the free exchange of ideas. While this is one of the things that happened, sadly, it's not the only thing that happened. We reminisce about the "good old days of the internet" which was about 15 years ago, when things seemed simpler and friendlier, and

now we reminisce about the social media of 5 years ago, when things seemed simpler and friendlier. 5 years! That isn't even a blip in time!

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[https://edtechbooks.org/-Kpy]

So what is the difference between social media, then and now? The number of people? The kinds of conversations? The features of the platforms? Being able to talk about the good old days of social media is in itself a privilege. We yearn for the days when our privilege meant we had a particular kind of access to things. And now that everyone has access to those things, they've ruined our fun. How Twitter and other social media platforms were designed and how that design has changed over time has had a huge impact on how we interact with each other - some good, many bad. I won't go into the whole "they're

using our data!" thing because that's a different conversation, but these platforms were designed with specific people in mind, and those people were rarely people of color, minorities, women, or marginalized folks. And, sadly, these are the people who are most often harmed by the very openness that they're meant to embrace.

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[https://edtechbooks.org/-Qex]
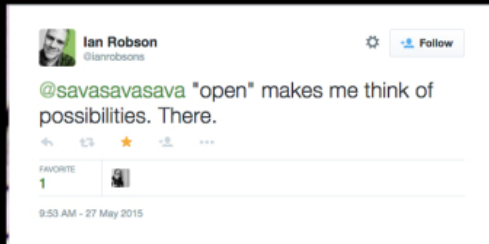
Social networking platforms make it easy to share and reshare things - links, ideas, comments, research - and also find community around shared values or interests. As George Veletsianos found [https://edtechbooks.org/-NYp], these online spaces provide academics a perfect setting to share their work, and in fact, "sharing" is considered a virtue, and possibly a virtue that adds to an

individual's social capital and online currency. This idea is also supported by [Christina Costa's work \[https://edtechbooks.org/-mfW\]](https://edtechbooks.org/-mfW) on the Participatory Web as a space for collaboration and sharing. Costa uses the collective term "Participatory Web" to mean,

> … a set of digital communicating networks, applications, and environments on which individuals act as active participants, contributors, and co-creators of information, knowledge, and opinions,

which contribute to what she refers to as the habitus of digital scholars.

With the advent of the internet, some might consider academic identity as an important part of an academic CV. Scholars and academics who demonstrate an understanding of the online world bring to their positions that added advantage. There are those academics who have a robust online presence, one that is either carefully cultivated, or curated in such a way that the community they have created reflects who they are. Often, because of online identities, academics have access to opportunities that otherwise might have passed them by. Invitations to collaborate, access to online publishing, networking, and even access to senior academics one would normally never be able to talk to. Some academics take the trouble to groom their online identity in such a way as to appear more desirable and well-connected, increasing their chances at job opportunities.

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[https://edtechbooks.org/-wbz]

[John Willinsky referred to this as the "reputational economy" \[https://edtechbooks.org/-guS\]](), where reputation is currency with the academy, in which

> ...reputation in academic life controls the production, consumption, and distribution of this public good known as research and scholarship.

He notes that we need to reassess scholarly reputations given the rise in use and popularity of the digital element of scholarly communication, especially with things like open access. [Bonnie Stewart notes \[https://edtechbooks.org/-mWA\]]() that scholars cultivate a type of reputation and influence on Twitter that is different from

traditional academia and that they are,

> … engaged in curating and contributing resources to a broader "conversation" in their field or area of interest rather than merely promoting themselves or their work.

While building networks, users learn to recognize valuable connections and to weed out the 'noise' or unwanted information and people. [Judith Donath compared this to signaling theory \[https://edtechbooks.org/-jfJ\]](https://edtechbooks.org/-jfJ) - originally from economics and biology - as the

> … relationship between signals and qualities, showing why certain signals are more reliable and others are not.

Taking an example from Twitter, hashtags can be thought of as signaling identity units[* \[#hashtagpublics\]](#hashtagpublics), and identifying with particular hashtags can mean access to important connections and a resource-rich community.

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[https://edtechbooks.org/-kcE]

Let's talk about scholarship in the open. There are multiple articles and tweets and blogposts about the virtues of conducting one's scholarship in the open. And they're all right. But they're also all right for some people, and not for everyone.

The internet affords a type of open scholarship in which scholars can use blogs, Facebook, Twitter, and other platforms to think out loud and elicit feedback from peers. Doing so can yield surprising results, such as Jessie Daniels' experience [https://edtechbooks.org/-uat] of tweeting about a topic, those tweets and the conversation around those tweets grew into a series of blog posts, and those posts and discussions around them led to a peer-reviewed journal article. It is a perfect example of what it means to be a scholar in the digital age - the very nature of scholarship and process of scholarly work can look completely different from traditional academic models of scholarship.

[Martin Weller has talked about \[https://edtechbooks.org/-UBS\]](https://edtechbooks.org/-UBS) urging institutions to reward digital scholarship and even include it during tenure review. He identifies two good reasons for why academic institutions should recognize and reward digital scholarship:

1. support for scholars who produce work online signals to other members of the institution that being digital is a desirable and rewardable activity, and
2. as a way to foster innovation within the institution itself.

I have been given various opportunities and made valuable connections because of how open I was online. I reaped the benefits of this openness, but was also aware of how I came about those things, and how I had to put myself out there a little in order to come by them.

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[https://edtechbooks.org/-rhj]

There are numerous examples of harm that has come from being "open" online, almost too many to list. Many might be familiar with more recent controversies, but I want to talk about a slightly older example of an academic kerfuffle (2012 is now considered old!) in what came to be known [https://edtechbooks.org/-zAJ] as [https://edtechbooks.org/-Grd] #twittergate [https://edtechbooks.org/-MHa]. Some of us might remember it, but a quick recap: #twittergate referred to what I understood to be reservations about live-tweeting academic conferences, and the many reactions - positive and negative - to these reservations.

I bring up this example because it highlights some interesting points about "open" in the context of the academy, and how things like social media are pushing those boundaries. Academic conferences are thought of as both "open" places and "closed" spaces. They are

attended by our peers and are where we share new ideas and get feedback on those ideas. They're often a testing ground, if you will, for things a lot like what I'm doing now. Academic conferences are also traditionally open fora, but only insofar as our immediate communities and disciplines are concerned, given the ability or support for travel and registration fees. With social media like Twitter, this "open" forum gets more open, in a sense. The communities that tune in are often just extensions of the communities present physically - mostly academic, but livetweeting also makes these conferences accessible to those who may be interested but not in academia and those who cannot attend in person.

A lot of the commentary about this issue supported livetweeting, but called for being respectful of what presenters might prefer. What's interesting is that we don't even really think about this any more. Like it's fine to livetweet now, it's expected, even required. But the thing that struck me during it all, was that not as many people considered who might be harmed by this behavior. A lot of the focus was on academics who were thought of as somewhat "old school", paranoid, and possibly privileged, rather than on those academics who were more junior, conducting sensitive research, or just preferred not to be broadcast in that way. Personally, I am conflicted about this issue. And perhaps it is a non-issue now, but still something we should consider.

And there are more examples. Many more. Friends who have been open about their feelings, opinions, and work have been on the receiving end of a barrage of hate and abuse, to the extent of being afraid for their lives. This is not the "democratic" internet or social media we were promised.

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[https://edtechbooks.org/-GkS]

We touched on networked scholarship a little earlier and I want to talk about it a little more. We're all here as part of a network of scholars, namely HASTAC. hastac.org [http://www.hastac.org] is a really amazing place for our network to share scholarship and have discussions around ideas and shared interests, but it's also a place where many scholars post their work and research. It's a community that respects its members. And I think this is partly because of how the community and platform are designed, and how membership is set up. It is not an open platform in the vein of Twitter, and it caters to a very specific community.

Veletsianos and Kimmons call it [https://edtechbooks.org/-FWx] "networked participatory scholarship" to provide a paradigm for the way in which scholars are using participatory online technologies to add to existing scholarly practices, and even bring them into the

21st century.

For example, social media platforms like Twitter afford further forms of peer review, and possibly even push the definition of "peer review". Scholars who discuss academic ideas and themes get a sort of early peer input on their work, which can then translate into early drafts of a larger work which they can share on Twitter and elicit further feedback, and finally submit the work to a formal academic journal after having already received a substantial degree of peer review and input. While Jessie Daniels' story from earlier is the most positive example of this sort of evolved and collaborative peer review, it will be interesting to see how this model develops.

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[https://edtechbooks.org/-avd]
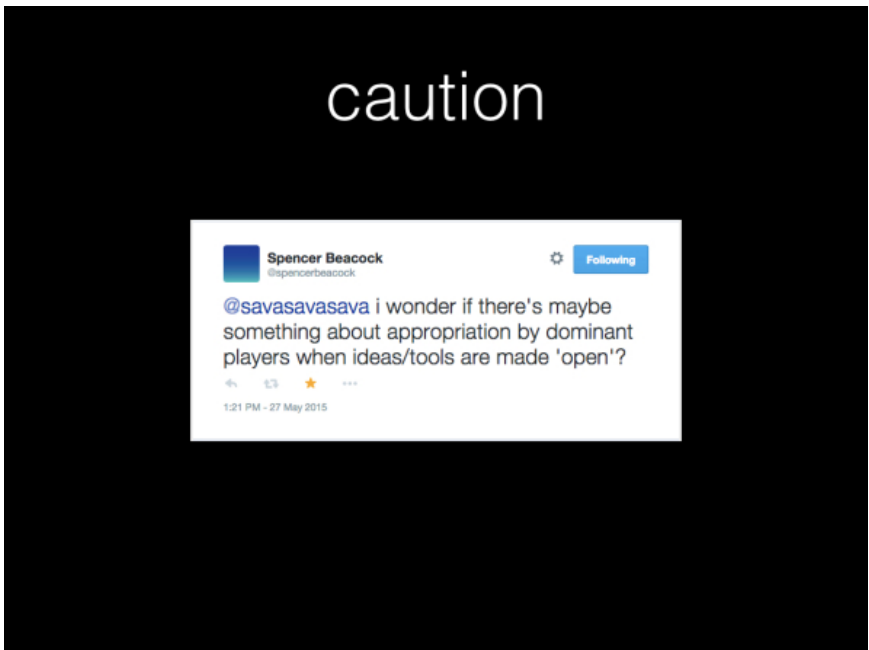
Veletsianos and Kimmons highlight the advantages of open scholarship, but also warn of the down sides of it, such as misappropriation, expectation of digital literacy, and the potential of openness creating inequalities within scholarly communities. [Tressie McMillan Cottom points out [https://edtechbooks.org/-zAJ]](https://edtechbooks.org/-zAJ) the risks of online scholarship to scholars who are members of marginalized or minority groups. Scholars can feel pressured to take on open scholarship - either as a way to increase visibility for their own work or at the insistence of their academic institutions, Cottom says, but institutions should offer support to these scholars, especially if they are minorities, women, and junior scholars. While public scholarship can be vastly advantageous and beneficial to some, not all are prepared to face the kinds of discrimination and harassment the open web can bring to your door.

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[https://edtechbooks.org/-eDm]
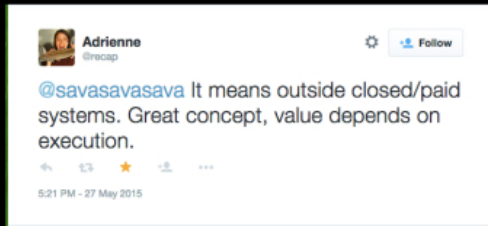
So, open is not good for everyone, and tends to bias those in already privileged positions - race, class, gender. The hype around open, while well-intentioned, is also unintentionally putting many people in harm's way and they in turn end up having to endure so much. The people calling for open are often in positions of privilege, or have reaped the benefits of being open early on - when the platform wasn't as easily used for abuse, and when we were privileged to create the kinds of networks that included others like us.

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[https://edtechbooks.org/-wem]

What are some of the things we can do to be more sensitive to those for whom "open" can mean harm? Some of these things may seem obvious or commonsensical, but they bear repeating because even I get swept up in things and lose sight of what's important for my community.

**Interrogate platforms** - We need to look closely at and be critical of the affordances and features of the platforms and online spaces we use, and point these out often.

**Find workarounds** - People often find ways to subvert systems to create safer spaces for themselves. When existing structures do not provide safety, we need to look at ways to work around the system in order to create those spaces.

**Find and nurture community** - It is in our interest to create a close-knit group of people who are easy to access when you need them. This doesn't mean creating closed communities of only your friends, but it

does mean that you have a trusted few who you can turn to in times of need.

**Push back** - We need to take companies and platforms to task, especially those individuals or groups who create them. Software, platforms, and technology are NOT neutral. They are imbued with the biases of those who built them, regardless of whether they were coming from a good place or not.

**Create inclusive spaces** - We need to do the extra work to include more and diverse voices. We shouldn't be lazy and just reach into our echo chambers, but we need to do the hard work it takes to find people who can speak to different experiences when we build community, organize conferences, or even create an app.

**Be self-reflexive** - We need to take a long hard look at ourselves and our echo chambers. Echo chamber can be safe spaces - there is overlap here - but we need to be mindful of creating cliques and find the balance between these two.

**Support your people** - We must push for institutional buy-in for supporting members of our communities. We can work within our universities or educational institutions to put action plans in place and create guidelines for how to address online abuse, should it occur.

**Be mindful of using tweets** - Don't embed tweets. Just because they're public, this doesn't mean it's ok to embed a tweet without permission of the author, or even otherwise. Embedding a tweet increases the reach of the tweet and brings it to a different medium. it also makes accessing the author easier. In the same way, be careful of how you use storify. Taking tweets out of context can lead people to misinterpret meaning.

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[https://edtechbooks.org/-HfB]

## Suggested Citation

*singh, s. s. (2019). The Fallacy of 'Open'. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/fallacy_of_open*

# 3

# Identity & Participation



The advent of Web 2.0 and social media has enabled interpersonal, civic, and learning interactions on an unprecedented scale. These technologies can allow us to develop connections to other people, they can empower community building, they can give us access to information resources, and they can provide seemingly infinite avenues for self-exploration and self-expression.

Rather than providing simple extensions of existing social and information connections, our modern ubiquitous technologies may fundamentally transform some aspects of what it means to meaningfully participate in society, what it means to learn, and even what it means to be human.

In this section, authors explore how social technologies may be reshaping fundamental society, learning, and identity norms and

attempt to discover what it means to learn and thrive in an increasingly network-connected world.

# The Question Should be: Why Are You *Not* Blogging

## Alan Levine

### Editor's Note

This was originally posted to [Alan Levine's blog [https://edtechbooks.org/-Dmr]](https://edtechbooks.org/-Dmr) on September 1, 2012.

I don't really have to explain why I blog. Actually I am compelled to. I

cannot stand to NOT blog. It's easy, and as I said in my first post, April 19, 2003, on a then self hosted MovableType blog- I Blog Therefore I Am [https://edtechbooks.org/-nza].

It is for me, primarily, how I think through ideas, issues, and stuff that makes me want to puke. It is as much a part of my cognitive process.

In last week's pre class discussion for the Program for Online Teaching Certificate Class [https://edtechbooks.org/-WoDV] I kind of jumped on someone in the chat who said "I do not have time to blog". I was probably kind of rude, but **I refuse to buy that as an excuse. It's a copout.**

Yes, I know people are busy. But if you give me a detailed log of everything you do in a week, a detailed chronology, I will find the time for you. What you are really saying is, "It is not important enough for me to prioritize what I do" Why not just own that? or "Although I am delighted to consume and reuse open content and information from the nwtworked world, I am not really interested enough in contributing back."

Kids have a name for that– "stingy".

Here is how people operate, **we make time to do things that are important to us.**

First of all, the thing I assure people spend a lot of time doing is email. Let's review what to write email.

- Spend a little time thinking about what you will write.
- Open a piece of software (or web site).
- Click Compose
- Write out your email, format it, maybe paste in some URLs and/or open a file on your computer, and add it as an attachment.
- Click Send

You know what you just did? That is the same amount of effort it takes to blog.

You what people spend a lot of time on email; doing? Forwarding links. Thats a stupid place to share. Or get this, scheduling meetings. C'mn you have seen this, or even done it yourself. It could take easily 25 emails to schedule a meeting between 4 people, when it could be done with 1 email and a tool like [http://doodle.com](http://doodle.com).

But you will say, "It takes me hours to write a blog, I do several drafts, let it sit, comeback days later…."

That is not blogging. That is composing a paper. That is thinking about a blog as a highly published final piece of literature.

Fooey.

Blogging should be conversational. It should be half baked. Or less. It should (in my case) contain typos –because it is not meant to be (IMHO) a published journal article- it is your own personal thinking, shared out loud.

If you are spending that long writing a blog post, then you are wasting time. And you are blogging wrongly.

Let me tell you how I blog.

I don't use a computer.

As I am driving, walking, hiking, biking, sitting drinking my coffee, I am often composiong the blog in my head. i get an idea of something I want to write about (like this), and by the time I sit down to the computer, its really a matter of dictating it (well sort of, I do a lot of rewriting as I type). But the idea, or the seed of it, is mostly done. I spend more time finding photos (actually I do not, I usually can locate, usually in much less than 10 minutes, the creative commons photo I

want uaing [compfight \[http://compfight.com/\]](http://compfight.com/). In fact the photo above, I searched on "dog computer" as tags, and ironically one of the photos was my own. But thats a different story.

Do you know what you were thinking about on a date, like, say September 30, 2005?

I will wait.

See if you can recall.

Are you having trouble?

I don't because I have an outdoor brain — [https://edtechbooks.org/-TJA](https://edtechbooks.org/-TJA) (wow that was a blog heavy day).

It has been a long time since I nodded when reading (maybe it was listening to) [the IT Conversations podcast where Jon Udell spoke about his notion of narrating the work we do \[https://edtechbooks.org/-aWx\]](https://edtechbooks.org/-aWx) (I was also listening because he was talking to a colleague [Hilary Mason \[http://www.hilarymason.com/\]](http://www.hilarymason.com/) who is now a big shot in the tech world).

> The fulcrum of my talk last week at the Open Education Conference was observable work. I first started thinking about this back in 2002, when I included this Dave Winer excerpt in my review of Radio UserLand:
>
> **We've been using this tool since November, internally at UserLand. We shipped Radio 8 with it. When we switched over our workgroup productivity soared. All of a sudden people could narrate their work. Watch Jake as he reports his progress on the next project he does. We've gotten very formal about how we use it. I can't imagine an engineering**

**project without this tool.**

Since then I've spoken a few times about the idea that by narrating our work, we can perhaps restore some of what was lost when factories and then offices made work opaque and not easily observable. Software developers are in the vanguard of this reintegration, because our work processes as well as our work processes are fully mediated by digital networks. But it can happen in other lines of work too, and I'm sure it will.

But it really has not happened (that was written in 2009, so not that long ago).

So for me, blogging is not about writing for other people (though with syndication and truly open networks, it is a benign and beneficial side product), it's really *for me*. Not to be found or anything, but for mw to be working out ideas in a visible space– it just makes sense to me. Why would we not be all doing this?

One of the very first things I heard when I started as a green ed tech rookie, at a Maricopa Community College Ocotillo Retreat in 1992, was "we really want to be able to know who is doing what in Maricopa". This was not big brother reading your email, but in a large system– but actually any size organization, it is most common that people on one branch or side of it (say in a different camps, department, etc) does not know of innovation work being done elsewhere.

How could one know? I spent years at Maricopa trying different approaches. I even built a system people loved, and we tried [real honest approaches like bribery and competition [https://edtechbooks.org/-mDb]](https://edtechbooks.org/-mDb).

But if we pried free some of that time and effort we lavish on emails,

and maybe did regular amounts of publishing in our own spaces, think if the potential for not only informing people in our organization, but our community, our world.

When you send someone, or a group, some useful resource, or an idea via email, how many people gain from that? Is that information easily recoverable? Addressable? Email is the black hole of information, it is where ideas go to shrivel up and die.

I never formulated this coherently, but in my time at University of Mary Washington, I saw a potential for them as an organization, because of their size and familiarity, to become a place that openly writes about all the work they do, not just classes and gung ho tech profs, in the open. Students too. Like everyone doing this.

And has it networked, aggregated, re-aggregated. It is [the syndication network that people like Cathy Finn-Derecki and Jim Groom have put in place [https://edtechbooks.org/-tof]](https://edtechbooks.org/-tof), and they are getting closer and closer. They have the platform and infrastructure of [umw.edu [http://umw.edu]](http://umw.edu), but frankly, a lot of the department and office pages have a feel of static pages. Or one line posts with links to PDFs.

If you had a place where not only profs were thinking and writing in the open about the work they do, but also staff, admins -those department pages could become living, remixed flows of ideas. The technology is not the problem, it ia an inability to see, and appreciate the power of narrating the work we do.

A department page could become alive with a flow of ideas from individuals, and a school could aggregate from that, and the university as a whole could aggregate from that. It would be a beautiful machine. And I have hopes that it is going in that direction, with the energy that is already flowing out of [UMWDomains [http://umwdomains.com/]](http://umwdomains.com/)

**So here is why I blog. It is foolish and informationally selfish,**

**not to.**

It is foolhardy in a networked environment, to not give back in some way to the content and information that flows towards you. And you are cheating yourself out of a gift of now only knowing what you did on a given date, but being able to track how your thinking and ideas have evolved over time.

Heck, even cats can blog.
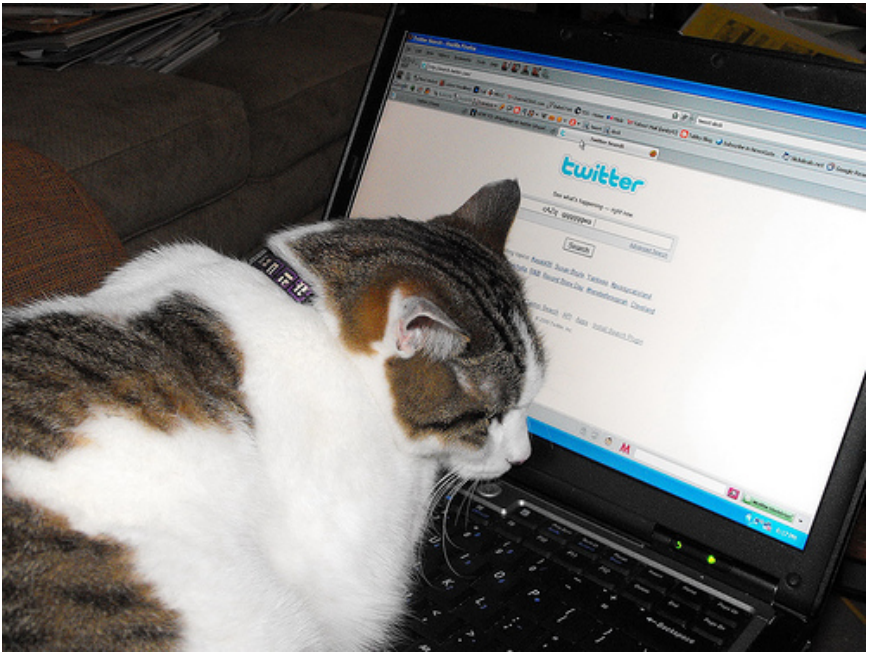


cc licensed ( BY NC ND ) flickr photo [https://edtechbooks.org/-wue] shared by Tabbymom Jen [https://edtechbooks.org/-inB]

If that does not convince you, I am lost.

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# The Kindness of Blogging

## Sheila MacNeill

### Editor's Note

This was originally posted to [Sheila MacNeill's blog](https://edtechbooks.org/-ezL) [https://edtechbooks.org/-ezL] on February 6, 2019.



Photo by [Robert Baker [https://edtechbooks.org/-JAP]](https://edtechbooks.org/-JAP) on [Unsplash [https://edtechbooks.org/-gwu]](https://edtechbooks.org/-gwu)

My blog is always at the back of mind, quite often I deliberately put it there as I haven't found the time to write anything and post!  Last week, a couple of things made me start to reflect on my blog and my

blogging journey (again).

Firstly the next [PressEd conference \[https://2019.pressedconf.org/\]](https://2019.pressedconf.org/) call for submissions is open. I watched this twitter conference from a bit of a distance last year and felt the very positive tsunami of twitter love for it from both presenters and delegates. Then I was in a room with both [Natalie Lafferty \[https://edtechbooks.org/-LuZ\]](https://edtechbooks.org/-LuZ) (conference co-organiser) and Anne-Marie Scott at a QAA Scotland Enhancement theme meeting (note to self – should write a blog post about that). They very skilfully shepherded a conversation to a point where I almost talked myself into submitting something.

Later in the week Lorna Campbell wrote, probably [the best post \[https://edtechbooks.org/-wqY\]](https://edtechbooks.org/-wqY) about academic blogging I've read, based on her own experience and the work she is leading at Edinburgh just now.  If you've ever thought about blogging but still are a bit unsure -just read the post and go for it.

In the post, Lorna mentions a few of her favourite academic bloggers and I was thrilled to be included in there, to feel valued by my peers and community.  That made me think again on notions of [academic kindness \[https://edtechbooks.org/-ttm\]](https://edtechbooks.org/-ttm)which I reflected on after the recent SocMedHE conference.  For me one of the most rewarding parts of blogging is when people either link to a post of mine,  or when colleagues like [Kate Bowles \[http://musicfordeckchairs.com/\]](http://musicfordeckchairs.com/)point their students to my blog, or when people take the time to leave a comment. When colleagues such as [Frances Bell \[https://edtechbooks.org/-gbJ\]](https://edtechbooks.org/-gbJ) leave a comment on a post, they always enrich the original post and push forward my thinking.

All these acts of engagement with my, often quite rambling posts, is such as motivator to keep writing. It helps validate my thought processes and my own sense of worth and value.

I think that that level of open, reciprocal acknowledgement is a key

part of academic practice in our digital, or even post digital age. We all need to support and encourage as diverse a range of voices as possible to be heard.

In this respect, Maha Bali's blog has been a revelation to me, reminding me of inequalities, dominant voices [https://edtechbooks.org/-cPn] and the need to think beyond my global north norms. Connecting with her through her blog has expanded my horizons hugely and allowed me to connect with a wider community and hear more diverse narratives around many, many aspects of educational development and practice.

I'll never forget the first time I met Maha in person at the OER17 conference. She mentioned my response to a pre conference blog post she had written. We had a hug in the middle of her keynote. I know not everyone is a "huggy" type of person, but to me that personified academic kindness. We connected (and continue to do so) through our shared (and different) perspectives on a range of topics from digital capabilities to what to wear [https://edtechbooks.org/-cxyX]at a conference keynote to open education.

There is also so much hope to be found in Maha's writing too.   That kindness of critically sharing different perspectives is what I aspire to, and what I see in so many blogs from my network.

Blogging for me has never been about SHOUTING or stats- though data about your blog can be "interesting". It's about sharing experiences, about enacting open practice through sharing work, thoughts, hopes and fears.

Although I have been blogging for quite a while now, I do still struggle to keep in the blogging habit. Time is always the enemy, and over the last year I have been spending a bit of my writing time on somethings else. Also, having spent many years finding my voice, recently the world has seemed such a crazy place that it has almost silenced me [https://edtechbooks.org/-KgF].

However there is something about the freedom of writing in a blog that just keeps me going.  I love the freedom from the norms and standards of the tyranny of a  peer reviewed academic article.  The freedom to think aloud and have the power to publish when and where I choose to.

On reflection, I feel that my sustained engagement with blogging has been a key part of personal and professional and personal development process. The act of blogging has been a critical part of my own agency and sense of continuously developing, reflecting and understanding of my own praxis.

So I think I may have now just about convinced myself that I should submit  to pressed this year, and I want to thank  you, dear reader for all your kindness in reading this blog over the years.

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# An Introduction to Connective Knowledge

## Stephen Downes

**Editor's Note**

This was originally posted to [Stephen Downes's blog](#) on December 22, 2005.

Yet another article, describing new forms of knowledge as probablistic, has crossed my desk today, and consequently it seems appropriate at this time to type a few words on the nature of distributed knowledge.

It should go without saying that these are my own thoughts, and this discussion should not therefore be considered an authoritative reference on the subject. Moreover, this is intended to be a brief overview, and not an academic treatise on the subject.

## a. Types of Knowledge

You probably grew up learning that there are two major types of knowledge: qualitative and quantitative. These two types of knowledge have their origin in major schools of history and philosophy, the former in the works of the ancient [Greeks](#), and the latter in [Arabic](#) and then later [Renaissance](#) philosophy.

Distributed knowledge adds a third major category to this domain,

knowledge that could be described as connective. A property of one entity must lead to or become a property of another entity in order for them to be considered connected; the knowledge that results from such connections is connective knowledge.

This is more than just the existence of a relation between one entity and another; it implies interaction. A [relation](#) - such as 'taller than' or 'next to' - is a type of quality. It describes a property of the object in question, with reference to a second object. But the fact that I am, say, 'taller than' Fred tells us nothing about how Fred and I interact. That is something different.

This is why it is incorrect to represent distributed knowledge merely as a type of probabilistic knowledge. The logic of probability implies no connection between correlated events; it merely observes a distribution. A connected system will exhibit probabilistic characteristics, but it is not itself probabilistic.

Probabilistic knowledge is a type of quantitative knowledge. It is based on the counting of things (or events, or whatever) and of comparisons between one count and another (one needs only to read [Carnap](#) to see this clearly). A poll, for example, gives us probabilistic information; it tells us how many people would vote today, and by inference, would vote tomorrow. But the fact that Janet would vote one way, and I would vote one way, tells us nothing about how Janet and I interact.

Connective knowledge requires an interaction. More to the point, connective knowledge is knowledge *of* the connection. If Janet votes a certain way because I told her to, an interaction has taken place and a connection has been established. The knowledge thus observed consists not in how Janet and I will vote, nor in how many of us will vote, but rather, in the observation that there is this type of connection between myself and Janet.

# b. Interpretation

What we 'know' about the world is irreducibly interpretive. That is to say, we do not through our senses and cognition obtain any sort of *direct* knowledge about the world, but rather, interpret the sensations we receive. This is true not only of connective knowledge, but of all three types of knowledge.

Consider qualities, for example. We take it as basic or atomic (see people like Ayer for example) that a statement like 'this apple is red' represents a pure and unadjusted fact. However, looking at this more closely tells us how much we have added to our original sensation in order to arrive at this fact:

First of all, the apple itself has no inherent colour. Colour is a property (specifically, the wavelength) of light reflecting off the apple. In different coloured light, the apple will appear to us differently - it appears white in red light, for example, or grey in diminished light. Yet we say the apple is 'red' - standardizing our colour descriptions to adapt to the natural light that surrounds us day to day.

Second, our perception of the apple as 'red' depends on our organizing light patterns in a certain way. When I was a child, the spectrum had six colours - red, orange, yellow, green, blue and purple. As an adult, I find that a seventh - indigo - has been added. It's not that a new colour came into existence when I was twenty, it's that our nomenclature changed. In a similar way, we can divide the colours of the spectrum in numerous ways: 'red', for example, can include shades as varied as 'crimson' and 'cherry'. Or '#ff0000'.

And third, when we say that 'the apple is red' we are drawing on our prior linguistic ability to use the words 'apple' and 'red' correctly and apply them to appropriate circumstances. Indeed, our prior knowledge often shapes our perceptions themselves: were you shown an apple in diminished light, so that all you could see was grey, and

asked what colour it was, you would still respond 'red' because of your prior expectations about apples and redness.

Less intuitively so, but equally clearly, interpretation applies to quantitative knowledge as well. It is easy to say that a sentence like 'there are twenty schoolchildren in the yard' is a basic fact, but this all depends on how you classify schoolchildren. Suppose, unknown to us all, one of the children had just been expelled; is our statement now false? Not obviously so. Perhaps one of them is over sixteen - is this person still a child (and hence, a schoolchild)? It depends on your point of view.

Quantification is essentially the enumeration of members of a category or set. Consequently, it depends crucially on how that set is defined. But membership in a set, in turn, is (typically) based on the properties or qualities of the entities in question. So such membership is based on interpretation, and hence, so is counting.

One might be tempted to say that even though applied instances of counting are based on interpretation, mathematics itself is not. But in my view, this too would be mistaken. For one thing, as people such as [Mill](#) and [Kitcher](#) argue, the rules of mathematics depend on empirical verification for their importance: we say that one plus one is two, not out of some innate sense of goodness, but because when we put one sheep together with another, we observe that there are two. Nothing but our observations prevents us from saying that one plus one is three, and in some contexts such a statement makes perfect sense.

# c. Emergence

[Emergence](#) is a hard concept, but at this point I can gloss it with a simple characterization: emergence is interpretation applied to connections.

There are two (equally valid) ways of thinking about this:

First, we may perceive an actual set of connections linking a group of entities as a distinct whole. For example, when one domino topples another, and so on, in turn, and we observe this from a distance, we may observe what appears to be a wave moving through the dominos. The wave that we observe can be said to be an 'emergent phenomenon' - it is not a property of the dominos themselves, or even of the falling of the dominos, but of the connectedness of the falling - because one domino causes the next to fall, we see a wave.

Second, we may perceive something as a distinct whole and interpret this as a set of connections. For example, when we look at the image of Richard Nixon on the television, we do not perceive the individual pixels, but rather, the image of a person. But our inference goes beyond merely the observation of the person; if asked, we would say that the appearances of the pixels are connected to each other, through the mechanism of having a common origin (Richard Nixon himself) and the mechanism of video broadcasting.

Emergence is fundamentally the result of interpretation. As mystics (and Spinoza) are fond of arguing, everything is connected. At a certain point, as the old saying goes, when a [butterfly](#) flaps its wings in China, the result is a thunderstorm in Halifax. But broadcasters in Halifax do not watch butterflies in China in order to predict the weather, because this connection will be of no use to them. Typically, they will look at more intermediate events, themselevs emergent properties, such as waves of air moving through the atmosphere (known locally as 'cold fronts').

In the same way, the observation of sets of connections between entities depends a great deal on what we already believe. That is why we see swans in clouds or [faces on Mars](#) when, manifestly, there are none. We have brought our prior knowledge of connected entities to bear on our interpretations of these phenomena. As [Hume](#) would say, our 'perception' of a causal relationship between two events is more a matter of 'custom and habit' than it is of observation.

# d. Physicality

We generally think of knowledge as being about facts, and about facts in turn as being grounded in an independent reality, a physical reality. Consequently, it is natural for us to say, for example, that when we see that something is red, that there is a physical basis for that statement, that even if we bring some interpretation to bear, there is some physical fact of the matter than makes the apple red, and not blue.

Certainly, were we not to think of things this way, we would be hard pressed to say anything about anything. Physicality provides us with a substrate on which to hang our interpretations, as [Kant](#) would say, a necessary condition for the possibility of perception. Physicality moreover offers us a means of sorting between what might be called 'correct' interpretations and 'misperceptions', between reality and a mirage.

All this may be the case, but nonetheless, there is nothing in our interpretations that is *inherently* based in physical reality, and hence, nothing that precludes our discussion of them without reference to this foundation. Indeed, this has been enormously useful in other domains. Despite the empirical basis of mathematics, it is much more productive and useful to refer to quantity without reference to the physical entities being counted, to (in other words) think of quantity in the abstract. The same is true of quality. Thinking of quality in the abstract leads to Aristotle's [syllogisms](#) and the basis of categorical reasoning.

Moreover, non-physical entities may have (or be attributed) properties that are themselves (on this theory) based in physical properties. In our ideas and dreams, we think of vivid colours and large numbers. And the ideas are transferable. Consider the concept of ['purple prose'](#) - an expression which is in all cases either meaningless or false, yet of significant utility and meaning.

What is to be learned from this? That the entities in the various categories of knowledge - be they properties or numbers - are themselves *not real*. When we talk about 'redness', we are not talking about something that has an independent, concrete existence in the world, but rather, in something that exists (insofar as it exists at all) only in our own minds. When we talk about the number 'four', we are not describing some [Platonic entity](), but rather, nothing more than our own thoughts or sensations.

That does not make them less 'real'. Our perception of the colour 'red' is as real as any phenomenon in the world. It is merely to distinguish between the perception, which results from a complex of factors, from the physical entity, which ostensively caused it.

In a similar manner, our interpretations of connections is distinct from the actual set of interactions that may exist in the world. Consider, for example, [conspiracy]() theories - the postulation of a complex and inter-related set of people and events leading to the conclusion that someone is out to get you. Such theories, notoriously, have no basis in the physical world. But they may nonetheless be contemplated, and discussed, and passed along, as though they were real. And the experience of a conspiracy theory may be, to the perceiver, every bit as real to the person having the experience.

There is a tendency on the part of readers, whether of [talking about crickets, or of Shirky]() talking about power laws, to represent connections as something 'natural' and 'real' that is simply 'out there' - as though what is said about networks of connections represents some immutable law of nature. Quite the converse is the case; our understanding of the existence of connections, and the nature of the networks they form, is something we bring to the table, an interpretation of what we think is salient.

# e. Salience and Inference

Our knowledge consists of interpretations of perceptions, which are in themsleves distinct from any physical reality that may have caused them. In this sense, one might say that these interpretations are 'constructed' - that is, they are the result of some mental or cognitive process, rather than something that comes delivered to us already assembled.

Inference is, broadly speaking, the manipulation of these bits of knowledge, in the abstract, to produce new bits of knowledge. In our mind, for example, we can postulate that if a red light is added to a yellow light, the result will be an organce light. Or that two sheep added to two sheep will result in four sheep. Often, subsequent perceptions will confirm such predictions, thus leading us to rely more greatly on the manipulations that resulted in them (and less greatly on manipulations that did not result in them, though the human mind is notoriously fickle in this regard).

All such inferences, however, are the result of a complex process of selecting what might be called the most 'salient' data. The counting of sheep, for example, is of utility only to people who own sheep (or are reading philosophy papers). Normally, during the course of our everyday lives, we have little need to count sheep, and so for the most part we ignore the actual number of sheep present to us at any given time. In a similar manner, when we perceive an orange light, we do not typically view it as a confirmation of the idea that red and yellow make orange. Unless we are visual artists we see it merely as an instance of 'orange'.

Our inferences, therefore, are based on salience, where salience may be thought of as the importance, relevance or vivacity of some property or perception. We 'pick out' those perceptions that will be of use to us, and disregard the rest. This is not often even a conscious process; it is based in part on innate reactions (such as jumping when

we hear a loud sound) and largely on prior expectations. Our past knowledge has led us to recognize that something that looks and sounds like a tiger is something we should pay attention to, and so our inference engine kicks into high gear.

In the same way, some connections are more salient than others. Think about your sense of place or location. It is centered on the city or town in which you are located, the streets spreading out from you in a pattern unique to your position. Change your location, and your map of the world changes with it; WalMart, which was once 'two blocks away', is now 'one block away'. Or consider your circle of friends: again, you are at the centre, with your closest associates at near proximity, with acquaintances more distance. Your friend, however, will count a different set of people as being most proximate, and others, including some you hold more close, as more distant.

Things become even more complex when considering the mind. We know that the mind is a massively connected set of neurons, but where is the point of view from which we regard these connections? While we can consider the bird's eye view in the abstract, and speak dispassionately about the [hippocampus](#) or the [corpus callosum](#), we cannot adopt such a frame of reference with respect to our own thinking. And yet, it seems manifest that there *is* a point of view with which we regard our own mind; it is the essence of conscious thought, that we are aware of our mental processes at the same time we are having them.

Again, it is that which is most salient that comes to the fore here. You may have mental representations of hundreds or even thousands of people but, if you are enamoured, be thinking only about one. Your body consists of millions of nerve ends, but if you have a toothache, your attention is focused only on those few related to the tooth. In a similar manner, it is only your most active and your most consistent thoughts that intrude on your consciousness, and it is through the lens of those thoughts that you interpret phenomena (and through

phenomena that you have those thoughts).

Inference is the observation of salient similarities among thoughts and perceptions. It is the recognition of common properties - qualities, quantities and connections - among varied perceptions, and the consequent drawing of connections between those entities, and between other properties of those entitites. Seeing that two sheep and two sheep make four sheep, you are led (via the salience of quantity, and the newly found salience of cows) to contemplate the idea that two cows and two cows might make four cows.

# f. Associationism

This process of inference has a history in philosophy under the heading of 'associationism', a type of reasoning associated with (until the advent of logical positivism) empirical philosophy and people such as Hume and Mill.

The central idea of associationism is this: two things that are relavantly similar become connected in the mind. This connection or association in turn allows knowledge about one to be inferred of the other. Thus, if we experience one tiger-like creature, and it tried to eat us, then if we see a relevantly similar tiger-like creature, we are led (as hume would say, naturally and senselessly) to believe that it will try to eat us as well. Eventually, a complex of beliefs about tiger-like creatures is formed, and some indeed become strong enough to allow us to contemplate a new (and dangerous) category of entity, given the name 'tiger'.

Various types of associationism exist, from association of impressions postulated by Hume to the similarity of phenomena described by Tversky. Two major types of associationism are relevant to us here:

The first is simple associationism, sometimes known as 'Hebbian associationism', which is postulated to be (and probably is)

foundational in the forming of neural connections in the mind (its applicability to the world outside the mind is much less evident). The principle, specifically, is that if two neurons fire at the same time, a connection will tend to be formed between them. This is, of course, an 'all else being equal' hypothesis: the neurons have to be the sort of neurons than can form connections, there needs to be some sort of proximity between them, and they need to be (computationally and physically) compatible with each other. A lot like a love story.

The second may be classified under the (inaccurate) heading of Boltzmann associationism. Derived from the idea of the Boltzman machine, this sort of associationism is an expression of (something like) thermodynamic forces. Think of it as the network attempting to settle into a 'balanced' or 'harmonious' state. The idea behind Boltzman associationism is that a certain amount of energy applied to a system will create a certain amount of kinetics - in other words, your brain goes on thinking even though its not receiving input. In the absence of external influences to cause Hebbian connections, the brain settles into a (thermodynamically) stable configuration.

Whether such modes of associationism, or any other method of connection-forming, is at work within any particular system, is a question for empirical observation. Probably, in any given system, it will be a combination. And as before, in addition to specific connection-building mechansims, there will be a requirement for enabling factors, such as proximity.

We understand similarity well enough with respect to quality and quantity. Things can be more or less alike - large, round and orange, say. And we can see how though this similarity how an association can be formed - our perception of (what we interpret to be) orange phenomena leads us to draw an association between them. Quantities, as well, are associated: we have never experienced a rainfall of six inches of milk, but we can easily imagine what it would be like, based on our experiences with six inches of water.

In the case of connections, the concept of similarity is less intuitive, but breaks into two major categories:

First, we can say that two entities are connectively similar if they share connections with the same set of entities. For example, Michael and I may be connectively similar, even if we have never met, if we share the same group of friends. Of course, such a similarity makes it more likely that a connection would form between us: but it is important to note the directionality here. The similarity preceeds the connection.

Second, we can say that two entities are connectively similar if they share similar sets of connections. For example, Paul and Michelle may be political activists, but working for different political parties. In such a case, they will share the same *types* of connections, but with different sets of friends. Such sets of connections are (more of less) *isomoprphic*. It is worth noting that this isomorphism will tend to lead to a connection between the two groups (political paries tend to interact with other political parties, but much less so with hockey teams) which in turn again leads to connections between the members.

# g. Distribution

At this point we reach a central concept of distributed knowledge, that of distribution itself.

In the previous section we looked, a bit glibly, at the possibility of political parties interacting with each other. And this is a concept we can intuitively grasp; we see it every day in political debates, in the legislature, and as represented in political polls and newspaper articles.

But a political party is not (per se) a self-contained entity: it is an assemblage of individual people where these people are connected

through some sort of common process (usually but not always involving a commonality of belief and participation in a membership process, such as signing a membership card and paying five dollars, along with an organized and often guided set of interactions between the members, such as are evidenced through a primary process or political convention).

The political party is a distributed entity. What is important to note is that it is *more* than merely a collection of associated or even similar people. A group of people, even if they all hold the same beliefs, and even if they all know each other, does not constitute a political party. Nor is it a question of quantity: a group of five people may constitute a (very unpopular) political party, while a very large group may not have any political existence at all. What makes a political party (and similar entities, such as corporations, hockey teams and university faculties) is the set of *connections* between its members, the existence of which is often manifest and recognized with special documents and legal standing.

It's a nebulous concept. The political party does not exist, is not contained, in any of its members, nor is it a mere aggregation of the properties or number of its members, but it would not exist without its members. The existence of the political party is *distributed* - there is no single place it could be said to be, but many places in which its existence could be said to be manifest. Each member forms a part of the political party, but they are not a miniature version of the party as a whole. The properties of the party are separate and distinct from those of the members.

We have here once again reached the concept of emergence, but from a different direction. Any property the political party may have is an emergent property. Consequently, it is a property that exists (in our minds) solely by virtue of it having been recognized or interpreted as such (which is why we have a formal process of 'recognizing' political parties). And yet, while this property depends on the constituent

members, it is not in turn a property of the members (Davidson calls this 'supervenience'). The emergent properties of a distributed entity exist solely as a consequence of the *organization* of its parts, and not its membership, and specifically, from the fact that these parts are connected in a certain recognizable way.

Strictly speaking, every entity in the world is a distributed entity (save, perhaps, indivisible subatomic particles - and (in my view) these may exist only by virtue of a reverse distribution, consisting entirely of entities that are *larger* than they are, much like a point in a moire pattern - but this is *very* speculative). Every entity is composed of additional entities, and the properties of the entity in question are not all mere reflections of the smaller entities, but rather, unique properties, that come into existence because of the organization of those entities. Thus the same collection of carbon atoms may result in very soft charcol or a very hard diamond.

When we speak of one of those properties, therefore - say, the hardness of a diamond - there is no *place* that we can point to where this property is located. There is no specific instance of the hardness of the diamond, save in our perception and interpretation that carbon atoms, when organized *this* way, are what we call 'hard'. The property of being hard, in addition to being distributed across the carbon atoms that constitute a diamond, in addition exists only as a result of our perception of it. Strictly speaking, were there no perceivers to recognize diamonds as being 'hard', there would be no 'hardness' for diamonds to have.

# h. Meaning

Above, we discussed the possibility of considering properties separated from the physical entities that are instances of them. Thus, for example, we can think of 'red' without thinking of a 'red thing'. At the time, we said that it does not follow that there is any specific entity such as 'redness'. But now we have to ask, in what does

'redness' consist. Because there is a sense in which 'redness' is real: it is something we all understand, a concept that is useful in our daily lives. The sentence, "This photo needs more redness" is not something we would immediately dismiss as nonsense.

The concept of 'redness' is an example of distributed meaning. There is no particular place we could point to where the 'meaning' of 'redness' is located. Indeed, that we have a concept such as 'redness' in our minds is in itself only something that we could know through interpretation of the myriad patterns presented in our consciousness and our behaviour. No doubt we have numerous other similar concepts, however, because they are not salient - because they never play a role in higher order cognitive behaviour - we do not recognize them. We are, in a sense, blind to them, until through some process (such as a Rorschach test) they are searched for and observed.

In a sense, having the concept of 'redness' in our own mind is similar to having 'liberal' as a description of a political party. low-level subsymbolic concepts exist in our minds - collections of connected neurons that themselves do not have meaning we would recognize, but which in combination eventually form higher-order structures that do correspond with the meanings of words (or melodies, or icons, etc), such as 'redness'. Saying that we have the concept of 'redness' in our mind is to pick our a particularly salient set of collections of connected neurons.

We can understand intuitively how the meaning of a word is distributed in this way if we reflect on the meaning of a specific word. For example, consider the word 'Paris'. We would at first blush take this word to refer to - and be - something concrete and definite, a city in north-central France. But the use of the word 'Paris' conjures different associations for different people. For example, 'city', 'France' and 'Eiffel Tower'. And some people think of plaster, other people think of Hilton, other people think of the left bank, other people think of Kurt Vonnegut.

But more: when we say that the meaning of the word 'Paris' is distributed, what we mean in addition is that the meaning of the word is *constituted* in part out of the same elements that constitute the meanings of these other words. We might say (loosely) that the connection between subsymbolic entities A,B,and C constitute the meaning of 'Paris', while the connection between B,C and D gives us the meaning corresponding to 'plaster' (obviously this is a vast oversimplification). When the meanings of words are distributed, the basis of their meanings - the smaller subsymbolic entities that make up the meanings - are *intermingled*. In a certain sense, you *can't* understand what 'Paris' means unless you at the same time understand what a set of other words, and indeed, other concepts (such as 'naming') mean.

This may seem like a hard, even impossible, concept, but it is one that we work with and manage every day. One might ask, for example, "where is Edmonton?" The answer to that question does not exist as some sort of determinate, singular entity; it is mixed in with a variety of other concepts. "Edmonton is in Alberta," we might answer, which draws the concept of 'Alberta' into our understanding. "Edmonton is in the Palliser Triangle," a geographer might say, which in turn draws in another set of associations as part of the answer. Edmonton is at latitude 52 north, a cartographer might respond, involving in our underlogiststanding the nature and employment of Cartesian geometry. The answer to the question 'where is Edmonton' and the meaning of the word 'redness' are of a similar nature, entrenched in a complex and interwoven networks of other meanings.

# i. Shared Meaning

From the writings of people like Wittgenstein we get the idea that meanings, in the truest sense, exist only when they are shared by a community of speakers. Wittgenstein even went so far as to say there could be no private language, that meaning is possible only if it is

shared publicly.

This strikes many people as wrong because they think of meaning as reference or (following Kripke) following a necessary order of things in the world. The Tarski definition of truth - "'Snow is white' is true if and only if snow is white" strikes an intuitive chord with people, as it establishes an observable empirical basis in the meanings of words.

And indeed, it is our common experience of an independently existing physical world that also leads us to such intuitions. Never mind old folk tales like "The Eskimos have 22 words for 'snow,'" the fact remains that when an Inuit says 'snow' and when a Brazilian says 'snow' they mean the same physical entity, specifically, crystalline $H_2O$.

And yet - an Inuit would say 'snow' in Inuktitut, and a Brazilian in Portugese, and the words in these two languages are different, and reflect different interpretations of reality. Languages are not isomorphic (Chomsky notwithstanding). The basis of English structure lies in the distinction between myself and the other, while in the French it is myself, my body, and the other. Neither is factually incorrect; snow is 'white' in each instance, and yet meaning diverges (or may diverge; as Quine says, we can't know for sure).

Meaning, for Wittgenstein, is established in the *act* of communicating. From the perspective of the current discussion, we would say something like this: the shared meaning of the word 'Paris' is an emergent property of the set of specific interactions between people involving the use of the word 'Paris' or of words accociated with the word 'Paris'. Or as Wittgenstein said it, "Meaning is use."

It is important at this juncture to understand that this account of meaning does not contradict, nor even compete with, the account of meaning given above. Just as we can examine two different people to find different meanings of the word 'Paris', so also can we examine two distinct types of entity - a person and a society - in order to

understand its meaning. Because there is no single and distinct entity which the meaning of the word 'Paris' must be. What connections are salient, what entities are salient, in our determination of the meaning of the word is a matter of context, a matter of interpretation.

When Wittgenstein says that there can be no private langauge he is, strictly speaking, wrong. I have numerous private words (which I won't share here, for otherwise they wouldn't be private, and I wouldn't have an example any more) and could in principle have a private langauge. Because having a language is not a case of *knowing* the language, as Wittegenstein (on some interpretations) argues. Having a language is being *organized* in a certain way. This organization is the 'black box' that gives us, as Ryle would say, "dispositions" to behave in certain ways, to (for example) utter the word 'Paris' when presented with a certain phenomena.

Indeed, to turn this around, 'knowing' anything is of a similar nature. To 'know' something is not to be possessed of a certain fact. There is no 'instance' of a piece of knowledge in our head. To 'know' is to be organized in a certain way, to have, if you will, a certain regularly occurring pattern of neural activity (and consequently, disposition to behave). Knowledge is, as Hume said, a 'habit of the mind'.

Indeed, if speaking a language, using a language, required 'knowing' a language (in the cognitive sense), then a child would not be able to speak a language, for a child employs linguistic constructions that he or she could not possibly identify or name (as a student of French, it is very frustrating to see a six year-old exercise more capacity in the langauge than I can). This is the sort of phenomenon that was perplexing to Chomsky: how could someone speak a language without the mental capacity to 'know' it? But this is not sufficient reason to suppose Chomsky's syntactic structures are innate; it makes as much (if not more) sense to believe that they are (subsymbolic) organizations of neural connections.

None of this, though, should be interpreted to mean that language is *merely* a mental phenomenon. We remarked above that the meaning of the word 'Paris' could be understood both from a personal and social point of view. But additionally, it should now be noted, that the personal and the social do not operate independently of each other. It is, after all, no coincidence that children grow up speaking the same langauge as their parents. The experience of linguistic elements as perceptions leads to the formation of linguistic elements as neural and mental structures, and the interaction of these back and forth lead to their being associated, and over time, more similar. Use of the language influences the speaker; use of the language influences the language.

# j. Organization

It may seem odd at this juncture to speak of a language as a social phenomenon, and a language as a mental phenomenon, in much the same terms, and indeed even, interchangable.

But it is not odd, nor even unintuitive, when it is recognized that meaning, both socially and neurally, have the same origin: meaning is an emergent phenomenon, arising from the connections between underlying entities. Socially, the underlying entities are speakers of the language, while mentally, the underlying entities are neurons and sybsymbolic neural structures.

How could these be the same? One might ask. But that's a bit like asking how a neural cell and a popsicle could both be pink. Or a bit like asking how there could at the same time be a thousand neural cells in a layer and a thousand people in a market. What makes language, both social and personal, similar is that both are derived from the same set of principles. And, indeed, it due to their following the same principles that makes language possible at all! If we could not in society replicate the same sort of things that happen in our own minds, there would be no means by which we could communicate at

all. Consider rabbits, who have active (though rabbit-like) mental lives: without the capacity to share meaning though networks of organized interaction, they are utterly unable to form a language.

The principles of organized networks of connections have received much attention in recent years, and deservedly so. We understand a great deal about how such networks work and about their properties. Conceptually, they have been studied under the heading of graph theory. Concrete instances of networks have been studied in the words of Watt and Buchanan, among others. Computationally, networks have been the locus of investigation by people like Minsky and Papert, Rumelhart and McClelland. Social networks, and social networking software, have become a minor industry. And, of course, the internet itself has given us a large scale network to study up close and in detail.

Most work (to my observation) has been centered in two major areas: first, the properties of different types of networks (for example, random networks, loosely coupled networks, etc), and secondly, properties of the propogation of information through networks (as instanced in, for example, the 'six degrees' phenomenon). Additionally, though the investigation of dynamic networks, it has been shown how networks can grow naturally, with no intent or design, on the basis of a few very simple principles. Observation of these phenomena have explained such things as power laws, which describe disparate numbers of connections between nodes in the networks, and cascade phenomena, in the process of examining the propagation of ideas and diseases through a society (or through a human body).

Much less has been said about what is probably the most important implication of this work: if a human mind can come to 'know', and if a human mind is, essentially, a network, then any network can come to 'know', and for that matter, so can a society. Just as the meaning of a word can be both personally based and culturally based, so also can

knowledge itself be both personally and culturally based. Moreover, because we know that people can learn, we can now also that societies can learn, and conversely, through the study of how a society can learn, we can understand more deeply how a person can learn.

# k. Social Knowledge

Social knowledge is to a society what personal knowledge is to a person. It is a result of the connections between the individual members of society, resident in no single one of them, but rather a property of the society working as a whole. Numerous instances of such connections occur; where certain of those connections become salient, and are frequently activated through use, they are recognized as forming a distinct entity, producing a distinct type of knowledge.

As an example, consider the knowledge of 'how to fly a person from England to Canada in a 747'. No single person possesses this knowledge, because it is the result of combining numerous instances of personal knowledge - from how to make tires to how to navigate a 747 to how to execute a landing while keeping the airplane intact. What makes these individual bits of knowledge combine to form an instance of social knowledge is that they are connected; knowing how to land an aircraft depends on, and makes sense, only in the context of knowing how to fly an aircraft, or to build an aircraft.

Though many instances of social knowledge go unobserved and unremarked, numerous examples may be adduced. For example, the knowledge of 'the value of wheat' at a given time is a type of social knowledge; it is the knowledge that results through the connections of millions of wheat buyers and wheat sellers in a marketplace. No individual has a grasp of 'the value of wheat' - they each make decisions to buy or to sell based on their own individual knowledge and needs. It is true that there is a 'market value' of wheat - but again, this is an *interpretation* of that social knowledge - not all instances of wheat-trading are taken into account, only those expressed in

financial terms, and not all wheat-traders are considered (the child receiving wheat from her mother, for example).

Smith's 'invisible hand of the marketplace' is but *one* way of looking at particular types of social knowledge, specifically, those that may be expressed quantitatively, and on the basis of quantitative reasoning. Wheat may be valued non-quantitatively - by its taste, for example. Consider how society values chocolate, in comparison. The 'value of wheat', looked at from a connective perspective, is a consideration of the interaction between all statements concerning 'value' and all statements concerning 'wheat', and an interpretation of those statements. That we today express the value of wheat in economic terms says as much about the salience of financial value in today's society as it says about wheat.

Social knowledge has recently attained recognition (and value) under the heading of Surowiecki's 'wisdom of crowds'. But it is worth noting that many of Surowiecki's examples are cases where individual guesses "aggregated and then averaged." While Surowiecki stresses (correctly) the autonomy of those guesses, he does not so stress the equally important fact that those guesses are not independent events - they are connected, in some key way, to each other (for example, the people guessing the temperature of a room have also the property of being in the same room; those estimating the weight of objects all see the same objects, and in trhe same way).

Social knowledge is not *merely* the aggregation and averaging of individual knowledge (as if there could be such a thing - consider how in guessing weights we use a medium, which in electing leaders we use a mode). That is why such aggregation is not necessarily reliable - an aggregation that is considered independently of the connections between entities is like a count that is considered independently of the membership of a set. Consider, for example, counting sheep without worrying about whether what is being counted is a sheep. It can work sometimes - in sheep-filled rooms, for example. But more

often, it will mislead.

# l. Power Laws and Inequalities

Much of the work in networks has been on what are called 'scale-free' networks. A scale-free network is (as people like Barabasi have shown) distinct from a random network in that some entities in the network have a much higher degree of connectedness than others. True, in a random network, there will be a certain variance in distribution, but in a scale free network this variance is extreme. Consider, for example, a network like the internet, where some sites, such as Google, have millions of visitors, while other sites have only one or even none.

A scale-free network of this sort forms through a dynamic process where the presence of one entity leads others to connect to it. For example, consider the act of creating links on a web page. In order to create a useful link, it is necessary to connect to a site that already exists. This means that, all other things being equal, a site that was created first will obtain the most links, because it will have been a candidate for linkage for all subsequent websites, while a site that was created last will have the fewest links, because it has never been a candidate for links.

This effect can be magnified when preferential attraction is considered. For when creating a link on a web page, a designer wants not merely to link to a random page, but to a *good* page. But how does one judge what counts as a good page? One way is to look at what other people are linking to. The probability that the first page created will be found is greater than that for any other page, which means that the first page will obtain even more links that it would receive through random chance. With this and similar drivers, some websites obtain millions more links than others.

What's interesting is that though a similar process leads to the

formation of scale-free networks in other areas, not in all cases is such an extreme inequality reached. What happens is that in some cases a structural upper limit is reached. Consider, as Barabasi does, the cases of airports and the power grid. Both are developed according to similar principles (airlines want to land flights, for example, where other airlines land flights). And, not unexpectedly, a power-law distribution occurs. But there is an upper limit to the number of aircraft that can land in a single airport, and consequently, a limit to the size of the inequality that can occur.

Various writers (for example Shirkey) write and speak as though the power law were an artifact of nature, something that develops of its own accord. And because it is natural, and because such systems produce knowledge (we will return to this point), it is argued that it would be a mistake to interfere with the network structure. This argument is remarkably similar to the argument posed by the beneficiaries of a similar inequality in financial markets. The rich get richer, benefiting from an inequal allocation of resources, but efforts to change this constitute 'intereference' in a 'natural phenomenon', the invisible hand of the marketplace, intelligently allocating resources and determining priorities.

This may be true, if we think of networks as natural systems. But the absence of limits to the growth in the connectivity of some nodes should alert us that there is something else going on as well. And it is this: the networks we describe, and in some cases build (or through legislation, protect), are *interpretations* of the multifarious connections that exist in an environment or in a society. They depend, essentially, on a *point of view*. And, arguably, the inequalities of links on the web or money in society represent the prevalance of one point of view, or some points of view, over others. But to understand how this could be so, we need to look at networks, not as physical systems, but as semantical constructs, where the organization of links is determined as much by similarity and salience than by raw, epistemologically neutral, forces of nature.

# m. Knowledge

What does it mean, even to say that a sentence has semantical import? To say, similarly, that we 'know' something? As suggested above, most of us remain committed to something like a Tarski semantics: we know something just in case what we know happens to be true. But of course, thi fails to tell the whole story. The knowledge needs to be, in some way, in our mind (or in our society); it needs to be a 'belief'. And (so goes the argument) it needs to be in some way justified, through a process of verification, or at the very least, says Popper, through the absence of falsification.

This view has its difficulties, as the Gettier counterexamples suggest. But (in my view) its most significant difficulties emerge when we try to articulate what it is that we know. Consider, for example, 'snow is white'. Sure, one could check some snow in order to determine that it is white, but only of one first understood what is meant by 'snow' and 'white' (not to mention, as Clinton taught us, 'is'). But as discussed above, that constitutes *the* meaning of, ay, 'snow', is far from clear. there is no such single entity. What it means is a matter of interpretation. So, for example, does enumerating what constitutes instance of snow. Does 'yellow snow' count? Does snow procuded by artificial ice machines count?

The behaviourist response to such dilemmas is to define 'knowing' that snow is white as a disposition to utter the word 'white' when presented with the question, 'what colour is snow'. And while we most certainly employ such tactics in the evaluation of knowledge (measuring responses is, after all, the basis of testing and examinations), it remains unsatisfactory, because we need to know what puts the disposition to say 'white' into a student's mind in the first place. Is it the whiteness of snow? Is it the memorization of the sentence 'snow is white'? Is it a comprehensive understanding of the process of crystalizing $H_2O$?

From the discussion above, it should be clear that on the account being given here, to 'know' that 'snow is white' is to be organized in a certain way (one that is evidenced by uttering 'snow' when asked). To be organized in such a way as to have neural and mental structures corresponding to the words 'snow', 'is' and 'white', where those structures are such that the concept 'snow' is closely associated with (in certain contexts) the concept 'white' (obviously this is a gloss). Knowing that 'snow is white' is therefore being organized in a certain way, but not in any particular way (we couldn't examine one's neural organization and be able to say whether the person knows that snow is white).

This is a very different model of what it means to 'know' - for one thing, because it is beased on organization and connectedness in the brain, the concept of justification and even of belief are nowhere present. What we 'know' is, if you will, a natural development that occurs in the mind, other things being equal, when presented with certain sets of phenomena; present the learner with different phenomena and they will learn different things. Like the Portugese word for 'snow', for example. And whether something counts as 'knowledge' rather than, say, 'belief' or 'speculation', depends less on the state of the world, and more on the strength or degree of connectedness between the entities. To 'know' something is to not be able to not know. It's like finding Waldo, or looking at an abstract image. There may be a time when we don't know where Waldo is, or what the image represents, but once we have an interpretation, it is not possible to look without seeing Waldo, without seeing the image.

No wonder Dreyfus and Dreyfus talk about 'levels' of knowledge, up to and including an almost intuitive 'expert' knowledge. As a particular organization, a particular set of connections, between neural structures is strengthened, as this structure becomes embedded in more and more of our other concepts and other knowledge, it changes its nature, changing from something that needs to be triggered by cue or association (or mental effort) into something that is natural as

other things we 'know' deeply, like how to breathe, and how to walk, structures entrenched through years, decades, or successful practice. Contrast this to a cognitivist model of knowledge, where once jutification is presented, something is 'known', and cannot in later life be 'more known'.

There is no 'magic' to obtaining knowledge, no secret short-cut, save for practice and reflection - Hebbian and Boltzman connectivism.

# n. Public Knowledge

'Public knowledge' is the explicit representation of social knowledge in language or some other concrete form. Public knowledge is what most people think of as 'knowledge' *per se*, it is what we attempt to teach our children, it is what is embodied an a canon and passed on to successive generations.

There are things known only by myself (cf again, Wittgenstein's private language argument), such as who I like and why, or where I last stubbed my toe, that society either cannot or has no desire to come to know as a part of social knowledge. Such knowledge, personal knowledge, does not externalize, because there is either no need or no mechanism with which to place it in the public domain.

Knowledge that is, for example, subsymbolic defies communication (it is not imposible to communicate, through a shrug, a sigh, a knowing look). In order for private knowledge to become public knowledge, it must have some means of connecting with everything else that is considered public knowledge - through commonly understood utterances or actions.

But the mere communication of private knowledge in the public domain does not thereby convert it to public knowledge. It must be interpreted as such, recognized as such, in the public domain. In order for this to happen, the set of utterances ('Paris is the capital of

France', say) must form a part of of the communications, of the interactions, in the social network as a whole. Then this pattern of communication must in turn be *recognized* by some perceiver (or group of perceivers) as constituting a relevant underlying organization of communication informaing (say) the behaviour of a society as a whole. Merely saying 'Paris is the capital of France' doesn't make it so; many other people must say it, and even then, the mere public utterance doesn;t make it so; it be recognized as a constituent element of the body of knowledge possessed by a society.

It becomes evident that one's demonstration of having acquired 'knowledge' is very different in the case of public knowledge than it is for private knowledge, even when the instance known is the same. Knowing privately that 'Paris is the capital of France' may consist merely of writing the appropriate word on a piece of paper, but knowing the same thing publicly involves a complex of interactions and behaviours, consisting essentially of immersion (becoming a part of, and entity within the organization) in the knowing community, so that utterances of the word 'Paris' reflect, and are seen to reflect, an instance of the (generally recognized fact that) 'Paris is the capital of France'.

Knowing publicly is, as Kuhn said, knowing 'how to solve the problems at the end of the chapter'. It involves being able not only to produce specific behaviours, but in providing evidence of sharing in the same network of associations and meanings as others in the community, sharing a language, methodologies, riverbed assumptions. Failure to personally know something creates only a personal risk - one might travel to Leiges looking for the French parliament instead of to Paris. Failure to know publicly carries a greater risk: that of not being considered to be a part of the knowing community, of being, therefore, excluded from its interactions, and of being misunderstood when attempting to communicate.

This is why writers such as Wenger find such importance in

communities of practice, and more, see such involvement as a process of (as he says) personal becoming. Interaction in a community of practice is to a significant degree an alignment of (certain parts of) one's personal knowledge with public knowledge - immersion produces a salience of certain utterances, certain practices, and thus promotes the developement of corresponding (but probably not isomorphic) structures in the mind. It exposes a person to instances of knowledge statements and pratcices which, if they are sufficiently similar to pre-existing organizations of neural and mental structures, increase, through association, their strength and importance. personal knowledge is distinct from public knowledge, but the two go hand in hand, and a person who is considered 'highly learned' is one who has internalized, to an expert degree, a great deal of public knowledge.

# o. Knowing

But on what do we base public knowledge? What is the process of interpretation and recognition by which we, say, accept the theory of gravity and reject stories about flying saucers? What makes some knowledge part of 'social knowldge' and other knowledge (merely?) personal knowledge? Why would a community accept some things as 'known' and not others?

Knowledge is a network phenomenon, to 'know' something is to be organized in a certain way, to exhibit patterns of connectivity. To 'learn' is to acquire certain patterns. This is as true for a community as it is for an individual. But it should be self-evident that mere organization is not the *only* determinate of what constitutes, if you will, 'good' knowledge as opposed to 'bad' (or 'false') knowledge.

Consider public knowledge. People form themselves into communities, develop common language and social bonds, and then proceed to invade Europe, or commit mass suicide, or in an example that poppup up today, [starve themselves to death](). Nor is personal knowledge any reliable counterbalance to this. People are as inclined to internalize

the dysfunctional as the utile, the self-descructive as the empowering.

These are examples of cascade phenomea. Such phenomena exist in the natural world as well. The sweep of the plague through medieval society, the failure of one hydro plant after another, the bubbles in the stock market. Cascade phenomena occur when some event or property sweeps through the network. Cascade phenomena are in one sense difficult to explain, and in another sense deceptively simple.

The sense in which they are simple to explain is mathematical. If a signal has more than an even chance of being propagated from one entity in the network to the next, and if the network is fully connected, then the signal will eventually propagate to every entity in the network. The speed at which this process occurs is a property of the connectivity of the network. In (certain) random and scale free networks, it takes very few connections to jump from one side of the network to the other. Cascade phenomena sweep through densely connected networks very rapidly.

The sense in which they are hard to explain is related to the question of why they exist at all. Given the destructive nature of cascade phenomena, it would make more sense to leave entities in the network unconnected (much like Newton escaped the plague by isolating himself). Terminating all the connections would prevent cascade phenomena. However, it would also prevent any possibility of human knowledge, any possibility of a knowing society.

## p. Structure and Process

Nothing guarantees truth. It is tempting to suppose that we could easily sure the excesses of cascading communities through a simple application of knowledge obtained through other domains, but in practice we gain no increased certainly or security.

Consider, for example, qualitative knowledge. We are as apt to be

misled by the information given by our senses as by any wayward community. Descartes records simple examples, such as miraches, or the bending of a stick in water, to make the point. Today's science can point to much deeper scepticism. Perception itself consists oif selective filtering and interpretation. The mind supplies sensations that are not there. Even a cautiously aware and reflective perceiver can be misled.

Quantitative knowledge, the cathedral of the twentieth century, fares no better. Though errors in counting are rare, it is a fragile a process. *What* we count is as important as how we count, and on this, quantitative reasoning is silent. We can measure grades, but are grades the measure of learning? We can measure economic growth, but is an increase in the circulation of money a measure of progress? We can easily mislead ourselves with statistics, as Huff shows, and in more esoteric realms, such as probability, our intuitions can be exactly wrong.

In the realms of observation and mathematics, we compensate for these weaknesses by recognizing that a single point of view is insufficient; we distribute what constitutes an 'observation' through a process of description and verification. If one person says he saw a zombie, we take such a claim sceptically; if a hundred people say they saw zombies, we take it more seriously, and if a process is described whereby anyone who is interested can see a zombie for themselves, the observation is accepted.

Even then, we demonstrated caution though an explicit recognition that in the process of seeing we are interpreting. An observation of a certain phenomenon may be labled the observation of 'zombies', but we consider alternative explanations. This is aided by ensuring that the observers of the phenomena have different sets of prior experiences, different worldviews, different ways they could interpret the phenomenon. Having every member of a religious sect report seeing zombies is less reliable than having members of different sects,

scientists and sceptics report the same thing.

In quantitative reasoning, we take care to ensure that, in our measurements, we are measuring the same thing. Through processes such as double-blind experimentation, we additionally take care to ensure that our expectations do not influence the count. In statistical reasoning, we take care to ensure that we have a sufficiently random and representative sample, in order to ensure that we are measuring one phenomenon, and not a different, unexpected phenomenon. I(n both we employ what Carnap called the requirement of the total evidence: we peer at something from all angles, all viewpoints, and if everybody (or the preponderance of observers) conclude that it's a duck, then it's a duck.

# q. Reliable Networks

Connective knowledge is supported through similar mechanisms. It is important to recognize that a structure of connections is, at its heart, *artificial*, an *interpretation* of any reality there may be, and moreover, that our observations of emergent phenomena themselves as fragile and questionable as observations and measurements - these days, maybe more so, because we do not have a sound science of network semantics.

Where structures of connections (ie., networks) differ from sets of observations or measurements is that there is in principle no external entity to which we can appeal in order to check our understanding. In a networked society, every person is a member of the network, and all things being equal, there is not some other networked society against which we can test our conclusions (prior to the days of global communications, societies did test themselves one against the other, but unfortunately though war and other conflict, a solution that was worse than the problem and which clouded their ability to interpret connections in a rational and dispassionate way).

We have already seen that there are different types of networks - different ways sets of connections between entities can be generated and organized. Where the mechanisms that support knowledge in other realms come into play in the world of networks is that these mechanisms become *properties* of the networks we rely upon to generate and contain knowledge.

In a network, a cascade phenomenon is akin to jumping to a conclusion about an observation. It is, in a sense, a rash and unthinking response to whatever phenomenon prompted it. The mechanisms that push a stock market into a bubble are skin to a person being convinced by looking at the same thing over and over again. A network in the throes of a cascade needs the internal equivalent to a 'second set of eyes' to act as the bearer of sober second thought.

This capacity is crucially dependent on the structure of the network. Just as a network with no connections has no capacity to generate knowledge, a fully connected network has no defense against jumping to conclusions. What is needed is to attain a middle point, where full connectivity is achieved, but where inpulses in the network ebb and flow, where impulses generated by phenomena are checked against not one but a multitide of competing and even contradictory impulses.

This is what the human mind does naturally. It is constructed in such a way that no single inpulse is able to overwhelm the network. A perception must be filtered through layers of intermediate (and (anthropomorphically) sceptical) neurons before forming a part of a concept. For every organization of neurons that achieves an active state, there are countless alternative organizations ready to be activated by the same, or slightly different, phenomena (think of how even a seed of doubt can destabilize your certainty about something).

Knowledge in the mind is not a matter of mere numbers of neurons being activated by a certain phenomenon; it is an ocean of competing

and conflicting possible organizations, each ebbing and subsiding with any new input (or even upon reflection). In such a diverse and demanding environment only patterns of organization genuinely successful in some important manner achieve salience, and even fewer become so important we cannot let them go.

# r. Network Structure

It is with these considerations that we return to the consideration of scale-free networks.

As mentioned above, a scale free network is characterised by a small number of entities is numerous connections, and a large number of entities with much fewer connections. It is worth noting that such networks are very tightly connected - in a scale free network a piece of information can reach an entire network very quickly.

While the human brain exhibits some scale-free properties, it is nonetheless not as imbalanced as even things like the economic system or the World Wide Web. Some neurons (or neural clusters) play important and central roles in the brain, but they are not millions of times more connected than most of the others. The brain is densely connected, but the connections are more equitably distributed.

This is no doubt a result of the physical limitations of neurons. But even more importantly, reducing the scale of the inequality between neurons also slows the propoagation of impulses through the brain. It allows sub-organizatuons to develop - the alternative interpretations we can experience when observing a Gestalt phenomenon, for example. Were the structure of human thought to be replicated at the social level, what we would see is essentially a community of communities - the part of us (society) that likes knitting, the part of us that is a hedonist, the part of us that enjoys a good novel.

Networks that exhibit extreme power law distributions are untable.

Because, though the mechanism of highly connected nodes, a single impulse can be broadcast and accepted by the entire network all at once, there is no constraint should the impulse prove to be destructive or dysfunctional. The extremes in human social behaviour, wrought on a smaller scale by chieftans and kings, and on a global scale by mass media, should serve as ample evidence of this. With nothing to counteract an irrational impulse, the charateristic of the one becomes the characteristic of the whole, and the society spirals into self-destruction.

Chieftans, kings and broadcast media are inventions. They are ways we represent, in physical form, the set of connections we perceive to be extant in a society. But as interpretations of a complex set of connections, they are subject to individual points of view, prior conceptions and prejudice. As Rousseau observed, when the mechanisms of the whole are put into the hands of the few, the very nature of the whole is interpreted in such a way as to serve the needs of the few.

In order therefore to successfully counterbalance the tendency toward a cascade phenomenon in the realm of public knowledge, the excesses made possible by an unrefrained scale-free network need to be counterbalanced through either one of two mechanisms: either a reduction in the number of connections afforded by the very few, or an increase in the denisity of the local network for individual entities. Either of these approaches may be characterized under the same heading: the fostering of diversity.

For, indeed, the mechansim for attaining the reliability of connective knowledge is fundamentally the same as that of attaining reliability in other areas; the promotion of diversity, through the empowering of individual entities, and the reduction in the influence of well-connected entities, is essentially a way of creating extra sets of eyes within the network.

# s. Truth

Recently a series of discussions took place regarding the relative 'truth' of entries in Wikipedia, a collection of articles created through a process of collective authoring, and Encyclopedia Britannia, a collection of articles about similar topics written by a series of experts.

Such discussions are difficult to resolve because, as we have seen, what constitutes the 'truth' of the matter is very much a matter of interpretation. Truth, as commonly conceived, is said to be based on facts (and mediated through 'truth-preserving' inference), but if even the simplest observation depends to a great degree on interpretation, then the foundation of truth itself is equally suspect.

And yet this post-modernist attitude to knowledge is difficult to reconcile with our intuitions. We do rely on facts, there is knowledge, and what counts as knowledge has the virtue of being true. And when a body of work such as Wikipedia is examined, some statements are regarded as, and universally aknowledged to be, true, while others (happily a much smaller set) are found to be 'not true'. This, indeed, was the basis on which the Nature comparison of the two encyclopedias was based.

What distinguishes Wikipedia from Britannica is not so much the account of truth it embraces as the process through which it arrives at truth. Wikipedia, much more so than Britannica, represents an instance of connective knowledge - it is an attempt to capture, as public knowledge, what can be observed via the interactions of numerous instances of private knowledge.

It should be clear and obvious at the outset that this is not some process whereby individual points of view are aggregated and averaged - such mechanisms are more evident in entities such as Google and Technorati and Digg. Rather, Wikipedia, through

iterations of successive editing, captures the output of *interactions* between instances of private knowledge. The majority, typically, does not rule on Wkipedia; what matters is what is produced through the interaction.

In the case of Britannica, the same is the case. The authors, as experts, are typically those immersed in a knowledge community, who have in turn internatized the knowledge (both social and public) possessed by that community. The expert serves as a dedicated *interpreter* of that knowledge, an interpretation that is additionally subject to subsequent interactions with proof-readers and editors.

*A priori*, each approach has an equally plausible claim to being an effective (and reliable) generator of knowledge, which raises the question of how we will resolve the truth of the matter when (inevitably) there exists a point at which one encyclopedia says a statement is true and the other says the opposite.

Truth, in such a case, will come to depend not so much on the facts of the matter, but rather, through an examination of the process through which various types of knowledge are accumulated and interpreted. Just as the reliability of an observation report depends on how the observation is made, so to will the proclamations of connected communities of knowers.

# t. Knowing Networks

Arguably, the following criteria will determine the difference:

First, diversity. Did the process involve the widest possible spectrum of points of view? Did people who interpret the matter one way, and from one set of background assumptions, interact with with people who approach the matter from a different perspective?

Second, and related, autonomy. Were the individual knowers

contributing to the interaction of their own accord, according to their own knowledge, values and decisions, or were they acting at the behest of some external agency seeking to magnify a certain point of view through quantity rather than reason and reflection?

Third, interactivity. Is the knowledge being produced the product of an interaction between the members, or is it a (mere) aggregation of the members' perspectives? A *different* type of knowledge is produced one way as opposed to the other. Just as the human mind does not determine what is seen in front of it by merely counting pixels, nor either does a process intended to create public knowledge.

Fourth, and again related, openness. Is there a mechanism that allows a given perspective to be entered into the system, to be heard and interacted with by others?

It is based on these criteria that we arrive at an account of a knowing network. The scale-free networks contemplated above constitute instances in which these criteria are violated: by concentrating the flow of knowledge through central and highly connected nodes, they reduce diversity and reduce interactivity. Even where such networks are open and allow autonomy (and they are often not), the members of such networks are constrained: only certain perspectives are presented to them for consideration, and only certain perspectives will be passed to the remainder of the network (namely, in both cases, the perspectives of those occupying the highly connected nodes).

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# u. Remnants

This new knowledge is not inherently any more reliable than the old. A community that limits its diversity, that becomes closed, is as liable to err as a person who refuses to look around, refuses to take measure. A person, exposed only to limited points of view, with limited opportunities to interact, will be similarly bereft of insight.

It is, after all, a form of knowledge we have had all along, just as we have always have qualities, always had quantities.

Connective knowledge is no magic pill, no simple route to reliability. As the examples mentioned above (part o) demonstrate, a knowledge-forming community can be easily misled or deluded, just as as a person can suffer from delusions and misunderstandings.

Indeed, if anything, the sort of knowledge described here is perhaps even more liable to error, because it is so much more clearly dependent on interpretation. Knowledge derived from a pattern may be formed from a partial pattern; the perceiving mind fills in the gaps of perception. From these gaps spring the seeds of error.

Moreover, as we enter the connected age, we live with remnants of the previous eras, years when connectivity in society was limited, control over perspective maintained by the beneficiaries of scale-free communications networks. History is replete with examples of the mind of one man, or one group in power, distorting the mechanisms of media to their own ends.

The examples range from very large to very small, from the rise of totalitarianism to the propagation of genocide to gender sterotypes, mass media marketing, and propaganda. Practitioners vary from dictators to slave owners to misogynists. The history of repression walks hand in hand with the history of the distortion of connective knowledge.

The purpose of this paper is not to provide truth, but to point the way toward the correction of these errors, both in ourselves and in our society. To show that, through attention to the underlying framework informing social and public knowledge, we can find a new renaissance, not perfection, but perhaps, a world less filled with ignorance and superstition.

Freedom begins with living free, in sharing freely, in celebrating each other, and in letting others, too, to live free. Freedom begins when we understand of our own biases and our own prejudices; by embracing autonomy and diversity, interaction and openness, we break through the darkness, into the light.

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# Rhizomatic Education

## Community as Curriculum

# Dave Cormier

## Editor's Note

This was originally posted to Dave Cormier's blog [https://edtechbooks.org/-od] on June 3, 2008.

This article was originally published in *Innovate* (https://edtechbooks.org/-vAR) as: Cormier, D. 2008. Rhizomatic education: Community as curriculum. *Innovate* 4 (5). http://www.innovateonline.info/index.php?view=article&id=550 (accessed June 2, 2008). The article is reprinted here with permission of the publisher, The Fischler School of Education and Human Services [https://edtechbooks.org/-EbT] at Nova Southeastern University [http://www.nova.edu/].

Below is my paper as it appears in Innovate – Journal of Online Education. Many, many thanks to the fine folks there for all their help.

Note: this journal has since gone 'out of print'. the originals are still available at archive.org but i have adjusted the links here so that they continue to work.

> The truths of which the masses now approve are the very
> truths that the fighters at the outposts held to in the days

of our grandfathers. We fighters at the outposts nowadays no longer approve of them; and I do not believe there is any other well-ascertained truth except this, that no community can live a healthy life if it is nourished only on such old marrowless truths.

—Henrik Ibsen, *An Enemy of the People* (1882/[2000 [https://edtechbooks.org/-nTv]](https://edtechbooks.org/-nTv), IV.i)

The increasingly transitory nature of what is lauded as current or accurate in new and developing fields, as well as the pace of change in Western culture more broadly, has made it difficult for society in general and education in particular to define what counts as knowledge. The existing educational model with its expert-centered pedagogical planning and publishing cycle is too static and prescribed to accommodate the kind of fluid, transitory conception of knowledge that is necessary to understand the simplest of Web-based concepts. The ephemeral nature of the Web and the rate at which cutting-edge knowledge about it and on it becomes obsolete disrupts the painstaking process by which knowledge has traditionally been codified. Traditional curricular domains are based on long-accepted knowledge, and the "experts" in those domains are easily identified by comparing their assertions with the canon of accepted thought (Banks 1993); newer concepts, whether in technology, physics, or modern culture, are not easily compared against any canon. This lack of a center of measurement for what is "true" or "right" makes the identification of key pieces of knowledge in any of these fields a precarious task. In less-traditional curricular domains then, knowledge creators are not accurately epitomized as traditional, formal, verified experts; rather, knowledge in these areas is created by a broad collection of knowers sharing in the construction and ongoing evolution of a given field. Knowledge becomes a negotiation (Farrell 2001).

Knowledge as negotiation is not an entirely new concept in educational circles; [social contructivist [https://edtechbooks.org/-efp]](https://edtechbooks.org/-efp) and [connectivist [https://edtechbooks.org/-kgDd]](https://edtechbooks.org/-kgDd) pedagogies, for instance, are centered on the process of negotiation as a learning process. Neither of these theories, however, is sufficient to represent the nature of learning in the online world. There is an assumption in both theories that the learning process should happen organically but that knowledge, or what is to be learned, is still something independently verifiable with a definitive beginning and end goal determined by curriculum.

A botanical metaphor, first posited by Deleuze and Guattari in *A Thousand Plateaus* (1987), may offer a more flexible conception of knowledge for the information age: the [rhizome [https://edtechbooks.org/-mRB]](https://edtechbooks.org/-mRB). A rhizomatic plant has no center and no defined boundary; rather, it is made up of a number of semi-independent nodes, each of which is capable of growing and spreading on its own, bounded only by the limits of its habitat (Cormier [2008 [https://edtechbooks.org/-pfI]](https://edtechbooks.org/-pfI)). In the rhizomatic view, knowledge can only be negotiated, and the contextual, collaborative learning experience shared by constructivist and connectivist pedagogies is a social as well as a personal knowledge-creation process with mutable goals and constantly negotiated premises. The rhizome metaphor, which represents a critical leap in coping with the loss of a canon against which to compare, judge, and value knowledge, may be particularly apt as a model for disciplines on the bleeding edge where the canon is fluid and knowledge is a moving target.

# On Knowledge

A clear definition of the word "knowledge" is difficult yet key to any search for shared understanding. Indeed, as Hinchley (1998) notes, "Like other cultural assumptions, the definition of 'knowledge' is

rarely explicitly discussed because it has been so long a part of the culture that it seems a self-evident truth to many, simply another part of the way things are" (36). However, the concept of knowledge is fluid and subject to cultural and historical forces ([Exhibit 1 [https://edtechbooks.org/-io]](https://edtechbooks.org/-io)); as Horton and Freire (1990) argue, "If the act of knowing has historicity, then today's knowledge about something is not necessarily the same tomorrow. Knowledge is changed to the extent that reality also moves and changes. . . . It's not something stabilized, immobilized" (101). The word itself is thought to have multiple origins, drawing from forms of "to know," "to recognize," and the Old Icelandic *knà*, meaning "I can." The combination of these origins suggests a relationship of knowledge, power, and agency that is grounded in both the social and the political spheres. Knowledge represents "positions from which people make sense of their worlds and their place in them, and from which they construct their concepts of agency, the possible, and their own capacities to do" (Stewart [2002 [https://edtechbooks.org/-en]](https://edtechbooks.org/-en), 20).

Information is the foundation of knowledge. The information in any given field consists of facts and figures, such as may be found in the technical reference manuals of learning; in a nonrhizomatic model, individual experts translate information into knowledge through the application of checks and balances involving peer review and rigorous assessment against a preexisting body of knowledge. The peers and experts are themselves vetted through a similar sanctioning process that is the purview, largely, of degree-granting institutions. This process carries the prestige of a thousand-year history, and the canon of what has traditionally been considered knowledge is grounded in this historicity as a self-referential set of comparative valuations that ensure the growth of knowledge by incremental, verified, and institutionally authorized steps. In this model, the experts are the arbiters of the canon. The expert translation of data into verified knowledge is the central process guiding traditional curriculum development.

# Changing Knowledge

New communication technologies and the speeds at which they allow the dissemination of information and the conversion of information to knowledge have forced us to reexamine what constitutes knowledge; moreover, it has encouraged us to take a critical look at where it can be found and how it can be validated. The explosion of freely available sources of information has helped drive rapid expansion in the accessibility of the canon and in the range of knowledge available to learners. Online access to thousands of primary documents may be provided via the Internet for less than it costs to provide far fewer examples in a traditional textbook package (Rosenzweig [2003 [https://edtechbooks.org/-pL]](https://edtechbooks.org/-pL)). In addition to this increased accessibility of primary documents, a new breed of user-generated content has emerged on collaborative Web sites and in other online venues. Web sites such as [EdTechTalk [http://edtechtalk.com/]](http://edtechtalk.com/), [The Webcast Academy [http://webcastacademy.net]](http://webcastacademy.net), and the [Open Habitat Project [https://edtechbooks.org/-HNW]](https://edtechbooks.org/-HNW) collate the work of a variety of professionals to create snapshots of the knowledge of a particular field as it is seen at a given time (Cormier [2008 [https://edtechbooks.org/-pfI]](https://edtechbooks.org/-pfI)).

Thus the foundations upon which we are working are changing as well as the speed at which new information must be integrated into those foundations. The traditional method of expert translation of information to knowledge requires time: time for expertise to be brought to bear on new information, time for peer review and validation. In the current climate, however, that delay could make the knowledge itself outdated by the time it is verified (Evans and Hayes 2005; Meile 2005). In a field like educational technology, traditional research methods combined with a standard funding and publication cycle might cause a knowledge delay of several years. In the meantime, learners are left without a canonical source of accepted knowledge, forcing a reliance on new avenues for knowledge creation. For instance, a researcher exploring social software use must rely at

least in part on online knowledge repositories because current information on the terminology used in these areas is simply not available in any exhaustive or definitive form in books or peer-reviewed articles (Nichol [2007 [https://edtechbooks.org/-PuH]](https://edtechbooks.org/-PuH)). Information is coming too fast for our traditional methods of expert verification to adapt.

In fields frequently affected by the gatekeeping practices of the traditional publishing industry, professionals in fields such as the [science of spectroscopy [https://edtechbooks.org/-Gdr]](https://edtechbooks.org/-Gdr) are turning to online community learning spaces or collaborative document holders such as wikis. The wiki, or any collaboratively constructed document for that matter, solves a number of issues inherent to the expert-driven model as it has the capacity to be more current than any expert-assessed content package or traditional publication can usually be. Wikis and similar tools offer a participatory medium that can allow for communal negotiation of knowledge.

Collaborative knowledge construction is also being taken up in fields that are more traditionally coded as learning environments. In particular, social learning practices are allowing for a more discursive rhizomatic approach to knowledge discovery. Social learning is the practice of working in groups, not only to explore an established canon but also to negotiate what qualifies as knowledge. According to Brown and Adler ([2008 [https://edtechbooks.org/-RLt]](https://edtechbooks.org/-RLt)), "The most profound impact of the Internet, an impact that has yet to be fully realized, is its ability to support and expand the various aspects of social learning" (18). Several communities on the Internet offer some idea of what can be accomplished in a participatory social learning environment where knowledge is being negotiated ([Exhibit 2 [https://edtechbooks.org/-VIk]](https://edtechbooks.org/-VIk)). Social learning is particularly valuable in fields where the parameters of knowledge are constantly shifting and a canon has not yet been solidified. Educational technology is one such field. Alec Couros's graduate-level course in educational technology offered at the University of Regina provides an ideal

example of the role social learning and negotiation can play in learning ([Exhibit 3 [https://edtechbooks.org/-ozk]](https://edtechbooks.org/-ozk)). Students in Couros's class worked from a curriculum created through their own negotiations of knowledge and formed their own personally mapped networks, thereby contributing to the rhizomatic structure in their field of study. This kind of collaborative, rhizomatic learning experience clearly represents an ideal that is difficult to replicate in all environments, but it does highlight the productive possibilities of the rhizome model ([Exhibit 4 [https://edtechbooks.org/-REK]](https://edtechbooks.org/-REK)).

These changes have sparked two primary responses among purveyors of traditional educational knowledge. One has been to attack these new sources as flawed as has been the case in the history department at Middlebury College (Jaschik [2007 [https://edtechbooks.org/-uBm]](https://edtechbooks.org/-uBm)). These critiques of collaborative knowledge verification, premised on assumptions of validity rooted in the traditional strictures of academic publishing, reveal an essential misunderstanding of the place of socially constructed models in the new knowledge landscape that challenges traditional notions of canon just as the influx of content about women and ethnic minorities challenged certain canons of traditional knowledge in the 1990s (Banks 1993). An alternative response to changing knowledge foundations has been to engage in a flurry of discussion about intellectual property rights, debating the merits of various Creative Commons [licenses [https://edtechbooks.org/-oLR]](https://edtechbooks.org/-oLR) and trying to determine the means by which content creators' intellectual property rights can be protected even as content is distributed freely (Wiley [2007 [https://edtechbooks.org/-bM]](https://edtechbooks.org/-bM); Downes [2007 [https://edtechbooks.org/-HNi]](https://edtechbooks.org/-HNi); Bornfreund [2007 [https://edtechbooks.org/-mCS]](https://edtechbooks.org/-mCS)).

Both of these responses are inadequate: the first, obviously, because it denies the legitimacy of a rhizomatic knowledge-creation process that is already overtaking traditional models and the second because it relies on the old notion of knowledge as resident in a particular

individual and frozen in time, reified by publication. However, if knowledge is to be negotiated socially, then the idea of individual intellectual property must be renegotiated to reflect the process of acquisition and the output constructed by that process. What is needed is a model of knowledge acquisition that accounts for socially constructed, negotiated knowledge. In such a model, the community is not the path to understanding or accessing the curriculum; rather, the community *is* the curriculum.

# The Rhizomatic Model of Education

In the rhizomatic model of learning, curriculum is not driven by predefined inputs from experts; it is constructed and negotiated in real time by the contributions of those engaged in the learning process. This community acts as the curriculum, spontaneously shaping, constructing, and reconstructing itself and the subject of its learning in the same way that the rhizome responds to changing environmental conditions:

> The rhizome is an antigenealogy. It is a short-term memory, or antimemory. The rhizome operates by variation, expansion, conquest, capture, offshoots. Unlike the graphic arts, drawing or photography, unlike tracings, the rhizome pertains to a map that must be produced, constructed, a map that is always detachable, connectible, reversible, modifiable, and has multiple entryways and exits and its own lines of flight. (Deleuze and Guattari 1987, 21)

With this model, a community can construct a model of education flexible enough for the way knowledge develops and changes today by producing a map of contextual knowledge. The living curriculum of an active community is a map that is always "detachable, connectible,

reversible, modifiable, and has multiple entryways and exits":

> If the world of media education is thought of as a rhizome, as a library à la Eco [in *The Name of the Rose*], then we need to construct our own connections through this space in order to appropriate it. However, instead of that solitary groping made by Brother William, we see as our goal the co-construction of those secret connections as a collaborative effort. (Tella [2000 [https://edtechbooks.org/-gqA]](https://edtechbooks.org/-gqA), 41)

In the practical example of Couros's class, students created their own rhizomatically mapped curriculum by combining their blogs with information to which Couros pointed them and linking the combination to the particular knowledge that they discovered through discussions with key people in Couros's professional community. In accessing Couros's professional network, students had the opportunity to enter the community themselves and impact the shape of its curriculum as well as their own learning. The role of the instructor in all of this is to provide an introduction to an existing professional community in which students may participate—to offer not just a window, but an entry point into an existing learning community.

# Conclusion

In a sense, the rhizomatic viewpoint returns the concept of knowledge to its earliest roots. Suggesting that a distributed negotiation of knowledge can allow a community of people to legitimize the work they are doing among themselves and for each member of the group, the rhizomatic model dispenses with the need for external validation of knowledge, either by an expert or by a constructed curriculum. Knowledge can again be judged by the old standards of "I can" and "I

recognize." If a given bit of information is recognized as useful to the community or proves itself able to do something, it can be counted as knowledge. The community, then, has the power to create knowledge within a given context and leave that knowledge as a new node connected to the rest of the network.

Indeed, the members themselves will connect the node to the larger network. Most people are members of several communities—acting as core members in some, carrying more weight and engaging more extensively in the discussion, while offering more casual contributions in others, reaping knowledge from more involved members (Cormier [2007 \[https://edtechbooks.org/-HNR\]](https://edtechbooks.org/-HNR)). This is the new reality. Knowledge seekers in cutting-edge fields are increasingly finding that ongoing appraisal of new developments is most effectively achieved through the participatory and negotiated experience of rhizomatic community engagement. Through involvement in multiple communities where new information is being assimilated and tested, educators can begin to apprehend the moving target that is knowledge in the modern learning environment.

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## Suggested Citation

# A History of Knowledge, Distributed Cognition, and the PhD

## Royce Kimmons

**Editor's Note**

This was original posted to Royce Kimmons's blog [https://edtechbooks.org/-GgP] on February 2, 2011.

Building off of Matthew Might's illustrated guide to a PhD [https://edtechbooks.org/-Gmb] and sparked by some concepts presented in Roberts's *The Dissertation Journey*, I've been pondering lately the scope of human knowledge, scientific progress, and distributed cognition as they relate to seeking a PhD in today's world.

Let's start by creating a two-dimensional model of human knowledge c. 300BC. At that time, Aristotle was alive, doing the whole philosopher thing, in Athens and thereabouts. As with any learner of any age, Aristotle had access to knowledge resources (e.g. other people [Plato], written records, etc.) and had the ability to engage with these resources, which we will call literacies.
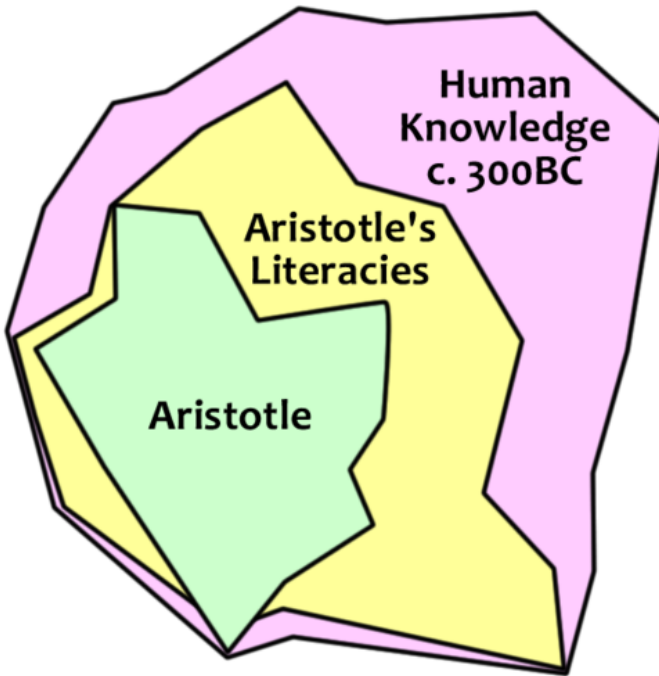
As the model suggests, though Aristotle was a well-learned individual, he certainly did not know all that was known by humans throughout the world. On the other hand, he was able to push and grow human knowledge in a few, key ways (e.g. ethics, astronomy, etc.) as evidenced by the manner in which his knowledge (at points) reached the edge of human knowledge and expanded it.

Additionally, Aristotle had access to knowledge resources and had the literacies necessary to use them, which expanded his ability to utilize human knowledge. That is, though Aristotle learned much, he still relied on external sources of knowledge (e.g. star charts, histories, maps, etc.).

Let's contrast this with a fictional unlearned peasant of the time named Philo.
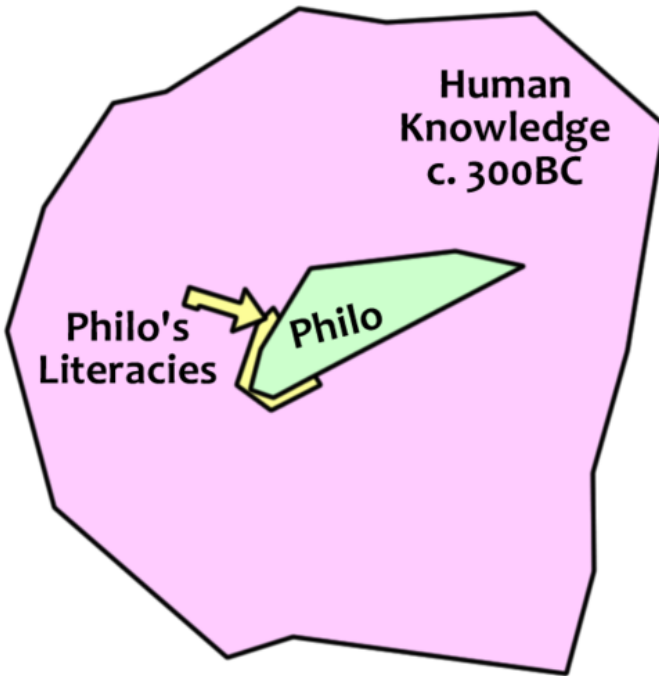
You'll notice a few differences between Aristotle and Philo. First, Philo knows considerably less (as illustrated by the smaller size of his polygon) than Aristotle. Second, there are some things in which Philo is more learned than Aristotle (as illustrated by the sharp point on the right which more closely approaches the limits of human knowledge than Aristotle's) in certain subjects (e.g. tilling land, pruning, etc.). And, you'll also notice that Philo's literacies are such that he cannot come close to matching Aristotle in some aspects, even while employing all the resources at his disposal.

Now, consider Jo, a 21st century PhD candidate.
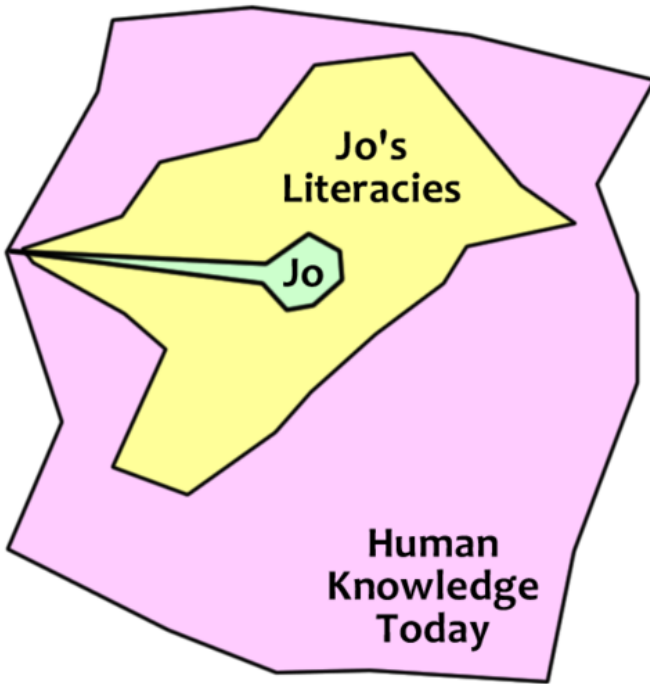
You will notice a few things in this illustration. First, at least the shape of human knowledge has changed from how it existed two millennia ago (while whether or not the scale has changed depends upon your belief in scientific progress). Second, Jo, like Aristotle, is pushing the limits of human knowledge in at least one key area which he has devoted his time and energies to researching. Third, in shape, Jo looks much more like the peasant Philo than like Aristotle (i.e. he is a master of one aspect of human knowledge and is largely ignorant of others). And fourth, like Aristotle, his literacies allow him the ability to utilize a wide range of resources beyond himself, even outside his expertise area (e.g. Internet resources, library materials, friends and acquantances in different careers and academic areas, etc.).

Now, if these are at all meaningful models of these three individuals' knowledge, then what does this mean for the budding PhD candidate?

First, it raises concerns for the ivory tower approach to education and research that persists in our society, because Jo, like the unlearned peasant of two millennia ago, is, himself, only skilled in a single way of thinking and working. He may not, for instance, be able to bring himself to think about problems and issues in the world around him in non-academic or non-disciplinary ways. (To a devout businessman, aren't all occurrences business opportunities? To a devout researcher, aren't all happenings fodder for research?) In fact, he may not even be able to effectively communicate with those of different educational levels or research interests (cf. Deresiewicz [https://edtechbooks.org/-mam]).

Second, it forces us to come to grips with the value of distributed cognition. If, in fact, all of human knowledge is not knowable by a single individual and if, in fact, an individual must devote his energies entirely to a single facet of knowledge to push the limits of human knowledge one millimeter further than it currently is, then, it follows, that to grow human knowledge, individuals need some level of support in areas outside their expertise area in order to function in a world that requires at least a certain level of general or communal knowledge. As such, we may find value in considering how distributed cognition (including technological tools which serve as aides to human understanding and social connections with experts in other areas [including more general knowledge areas]) can empower us to simultaneously be effective researchers (or growers of human knowledge) and well-rounded people with the fundamental knowledge necessary to act and prosper in a world that is continually being reshaped in a variety of directions.

## Suggested Citation

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# Some Observations on PLE Diagrams

## Scott Leslie

### Editor's Note

This was originally posted to [Scott Leslie's blog](https://edtechbooks.org/-aUp) on December 19, 2012.

One of the perennial favourite pages on my edtechpost wikispace has been the [collection of Personal Learning Environment (PLE) diagrams](https://edtechbooks.org/-LVa) I started back in 2008. A couple of years back I wrote a [call to folks asking for feedback](https://edtechbooks.org/-onE) on what I might do to improve it.

I didn't get a lot of feedback, but one comment, from [Ismael Peña-López](http://ictlogy.net/) really stuck with me – that what I should be doing was some analysis of *my own* on the collection, which indeed had in fact been the actual goal all along in creating the collection of diagrams.

I know it's taken a while, but with some [time on my hands](https://edtechbooks.org/-geT), here are some reflections on what this collection of PLE Diagrams might tell us.

# Caveat Emptor – Skewed Sample

There are currently 79 diagrams in the collection. With the exception of a very few, these were all produced by *educators themselves* or else people I think we should consider relatively advanced, self-directed learners. This is not surprising given that I started harvesting the images from my own network, typically comprised of educational technologists and educators, and then others were added from people also a part of these types of professional networks my work typically reaches.

But I think this is important to note up front – while some of these diagrams are simply a list of a few tools the person uses, many of them exhibit a HIGH degree of self-reflection, meta-cognition and technological adeptness. This is not to discount them as depictions of "what might become" for network learners in general, but I would caution to assert that they were reflective of how all network learners *currently* learn (or currently conceptualize their personal learning networks, as first and foremostly that's what these diagrams are, conceptualizations rather than the things themselves.)

# Diagram 'Orientations'

The first thing that struck me looking at the collection of diagrams is that there are some distinct "orientations" that jump out – diagrams that I describe as tool, use, resource, flow people, or hybrid oriented.

## Tool Oriented

By far the most prominent is what I called "[Tool-Oriented](https://edtechbooks.org/-jLn)" diagrams. Likely an obvious enough name, these are diagrams that by and large depict PLEs as simply a collection of tools. These make up the vast majority of the diagrams in the collection, 62 out of 79 (though as I note below, many of these

also exhibit additional orientations and there are fewer that are *solely* tool oriented diagrams.)

For me these are the least interesting of the diagrams. While it is useful to see which tools people typically conceive of in their PLEs (additional analysis of which is done below), these fail to reflect any of the dynamism I typically associate with network learning. Still, the **MAJORITY** of diagrams take this tact, which raises the question (taken up below) of whether a PLE is best understood simply as a collection of (albeit networked & loosely coupled) tools that stand in contrast with earlier monolithic approaches to learning environments, or if its that AND something more.

## Use Oriented

Numbering 32 of the 79 diagrams, "use orientation [https://edtechbooks.org/-QGq]" was the next most common orientation in the collection, by which I mean diagrams that explicitly list the aims of a personal learning environment. Often, though not always, these are accompanied by the tools used to fulfill these uses (making these into "hybrid [https://edtechbooks.org/-yDh]" diagrams, see below). These are far more useful in contrasting how people conceptualize learning within a PLE compared to more traditional teaching and learning approaches. As I'll discuss below, while there are many similarities, there are some key different uses and practices developed by PLE users that differentiate the way they are learning (and what) from their predecessors.

## Resource Oriented

While there are no diagrams that are *solely* "resource oriented [https://edtechbooks.org/-qsKK]," many of the diagrams do list educational resources, both formal and informal, as part of the PLE. These seems important to note; while many earlier conceptualizations and practices of education, both online and off, have been accused of

focusing too closely on content as the mechanism for learning, the critics pendulum has often swung too far in the opposite direction, seemingly content as having little or no role at all in learning. To me, neither of these extremes are correct, and the presence of various resources in the PLE diagrams offers a happy medium – resources, both consumed and created, shared and personal, digital and physical, do have a place in how networked learners conceive their learning and environments. Especially in conjunction with the other orientations.

## People Oriented

In some sense, ALL of the diagrams that depicted networked tools or resources were "people oriented." But I chose this term to describe [diagrams that explicitly mentioned or depicted people or groups of people as part of the PLE [https://edtechbooks.org/-MkH]](https://edtechbooks.org/-MkH). As in the case of "resource oriented" diagrams, there are almost none that are solely "people oriented." But it was surprising to me that only 15 of the 79 diagrams seemed to explicitly depict or mention people as part of the PLE.

## Flow Oriented

"[Flow Orientation [https://edtechbooks.org/-YgF]](https://edtechbooks.org/-YgF)" was also a characteristic that rarely appeared on its own, but 20 of the diagrams made real efforts to show how information and connections flowed between tools and people in their networks.

## Hybrid

Finally, as I've alluded to, 32 of these diagrams reflected more than one of these orientations, and these I have termed "[hybrid [https://edtechbooks.org/-yDh]](https://edtechbooks.org/-yDh)." For me these are typically the richest diagrams in that they depict PLEs as dynamic processes in which tools and resource have uses and flow into and out of systems and

conversations. This reflects my own experience of being a [network learner [https://edtechbooks.org/-Cjm]](https://edtechbooks.org/-Cjm).

## Dominance of Certain Tools
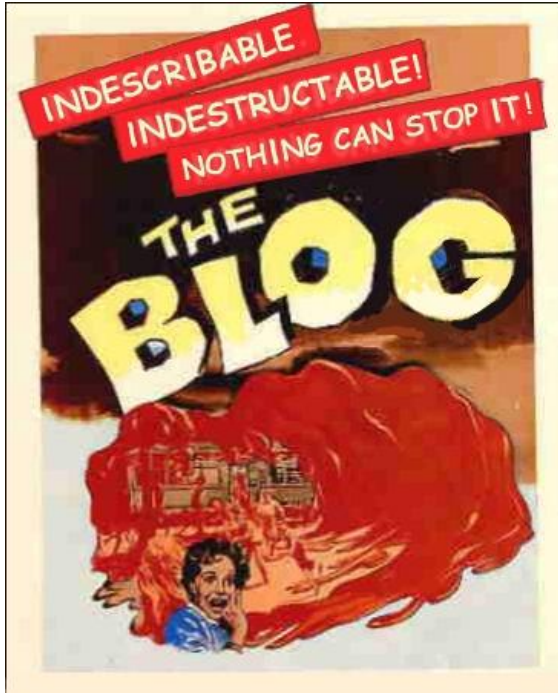


It seems unsurprising, especially given the popularity of certain services and the relative homogeneity of the sample, that the diagrams which identified specific tools (or types of tools) were dominated by a select few. [Blogs (59) [https://edtechbooks.org/-tdV]](https://edtechbooks.org/-tdV)dominated, but [twitter (33) [https://edtechbooks.org/-ixb]](https://edtechbooks.org/-ixb), [social bookmarking (43) [https://edtechbooks.org/-fjf]](https://edtechbooks.org/-fjf), [flickr (28) [https://edtechbooks.org/-rbu]](https://edtechbooks.org/-rbu), and [youtube (21) [https://edtechbooks.org/-wza]](https://edtechbooks.org/-wza) were also consistently listed. In addition, while I did not tag the diagrams as such, synchronous tools

like skype and Elluminate, as well as email and eportfolios were all regularly listed.

Social networking sites were also listed as common elements of PLEs – Facebook was [listed in 25 diagrams [https://edtechbooks.org/-ENp]](https://edtechbooks.org/-ENp), and (shocking to me) [linkedin in 15 [https://edtechbooks.org/-hoG]](https://edtechbooks.org/-hoG). (Shocking because clearly these folks have figured out a use for linkedin that elludes me.)

Given how often they are mentioned in the same breath as blogs, [wikis (25) [https://edtechbooks.org/-hoG]](https://edtechbooks.org/-hoG) seemed relatively underrepresented in the tools people singled out in their PLEs. Even more surprising to me was how little [wikipedia (9) [https://edtechbooks.org/-FoT]](https://edtechbooks.org/-FoT) was mentioned to me, given its dominance in search rankings and internet traffic.

# Metaphors

In addition to these orientations, I was struck by the use (and sometimes lack thereof) of metaphors to depict PLEs. The main one (and I am not completely convinced that this was not in part an artefact of the digital drawing tools employed by many to create these diagrams, more below) was of a "network." So commonplace was this that I did not officially code for it in the new collection's tags.

Interestingly (and again, I suspect an artefact of the tools used to create the diagrams) most of these "networks" were mind-map type drawings most closely resembling [hub-and-spoke networks [https://edtechbooks.org/-wst]](https://edtechbooks.org/-wst). While they capture the individual user's perspective of being at the "centre" of *THEIR* network, these are **not** actually accurate representations of how internet networks **as a whole** look. This issue, that "individual" networks are emergent phenomenon that differ depending on the location of the observer/participant is, I believe, a hugely rich avenue of exploration and challenge for network learning and networked society in general,

but grist for some future post, not this one.

In addition to the standard "network" depictions were more [abstract diagrams \[https://edtechbooks.org/-rYk\]](https://edtechbooks.org/-rYk). These struck me as worthy of note because they are less easily reducible and for me capture some of the human elements of network learning that is so often overlooked, whether it be "[love \[https://edtechbooks.org/-KDZ\]](https://edtechbooks.org/-KDZ)," "[growth \[https://edtechbooks.org/-ihf\]](https://edtechbooks.org/-ihf)" or simply the [ephemeral nature of networks \[https://edtechbooks.org/-uYC\]](https://edtechbooks.org/-uYC).

Finally, though not exactly "metaphors," it seemed important to note the number of PLE diagrams that were in essence [screenshots \[https://edtechbooks.org/-LCSk\]](https://edtechbooks.org/-LCSk). Paradoxically, these were both, in my opinion, the least successful representations of PLEs, and yet some of the most valuable for new comers to PLEs (especially those that were screencasts or presentations) in that they gave specificity to a concept that can be ellusive.

# PLEs and Informal/Formal Learning

The concept of PLEs originated both as a contrast to existing (e.g. LMS) models of online education and also out of a new set of affordances offered new Web 2.0 tools and practices. As explicitly PERSONAL learning environments, they start from the perspective of the individual learner. Yet many of the people interested in exploring PLEs and their potential have done so from within existing institutions, educational business models and practices (e.g. courses, cohorts,certification.)

Some of the diagrams reflect this [attempt to conceptualize a relationship between PLEs and institutions (and their MLE/VLE) \[https://edtechbooks.org/-oWS\]](https://edtechbooks.org/-oWS)which I tagged as "institution oriented." In addition, at least [13 diagrams explicitly reference the LMS as a component of the PLE \[https://edtechbooks.org/-Xmb\]](https://edtechbooks.org/-Xmb).

Whilst a slightly different issues, it seemed worthy to note in this section the [number of diagrams that explicitly noted a difference between private activities and public interactions [https://edtechbooks.org/-LsI]](https://edtechbooks.org/-LsI), signalling, as in the case of the formal/informal distinction above, that in some conceptions PLEs are very much about accomodating and permitting flow between both.

# The Effects of Digital Drawing Tools

I had a suspicion that the diagrams are greatly influenced by the tools people chose to use to draw them; that their tendency towards a certain type of depiciton (networks, entities & flows, venn diagrams) were because that is what those tools do well.

To see if this might be true, I coded those [diagrams created with a digital drawing tool [https://edtechbooks.org/-Sij]](https://edtechbooks.org/-Sij)to contrast them with [hand drawn diagrams [https://edtechbooks.org/-LsL]](https://edtechbooks.org/-LsL)(of which there were far fewer.)

The results seem inconclusive – if anything, the hand-drawn ones in the collection seem even more dominated by "network-like" drawings.

# Conclusions

## We know what PLEs are…

So given all of these observations, I'm wondering if there are any conclusions to be drawn. (N.B. in what follows I will refer regularly to [wikipedia's definiton of PLEs [https://edtechbooks.org/-dJw]](https://edtechbooks.org/-dJw). Not because it is the only or best one, but as one developed on an openly editable platform with public standards for acceptability, so hopefully reflecting some sort of rough consensus.)

With the dominance of "tool oriented" diagrams, and the fact that the

tools listed are well-known "Web 2.0" tools, Wikipedia's [description [https://edtechbooks.org/-dJw]](https://edtechbooks.org/-dJw) of PLEs as "Technically, the PLE represents the integration of a number of "Web 2.0″ technologies like blogs, Wikis, RSS feeds, Twitter, Facebook, etc." seems spot on. Given also the prevelance in the diagrams of flows and networks, [Downes description [https://edtechbooks.org/-Koq]](https://edtechbooks.org/-Koq) that PLEs "become[s]…not a single application, but a collection of interoperating applications—an environment rather than a system" seems supported too.

Given also the general lack of references to LMS and institutional systems (though there are some), the notions that PLEs "put[s] the individual learner at the center" and are about "the independent learner" seem generally reflected in the diagrams.

## …but must constantly find this out for ourselves

However, there is one assertion about what PLEs are and how people use them that is generally not reflected in the diagrams – that PLEs "provid[e] support for learners to set their own learning goals." A very few of the diagrams do make mention of keeping track of goals, whether this be explicitly as a "[use [https://edtechbooks.org/-QGq]](https://edtechbooks.org/-QGq)" or in the form of tools like ToDo lists or sites like 43things. But by and large this idea of  "learning goals" seems absent from the diagrams.

I believe this gets at the heart of some of the tensions that exist between existing institutional models of education and emerging visions of network learning. The absence of "goal setting" (and its corollary, learning paths AKA curriculum) on the diagrams is in part by design, but also in part a short coming of the current conceptualizations. **By design** because, in a truly *personal* learning environment, the goals and paths one follows aren't necessarily the predefined ones of the past but instead are constantly emerging based on where one finds oneself and what one needs at the time, or as [Downes writes [https://edtechbooks.org/-Koq]](https://edtechbooks.org/-Koq) "according to the

student's own needs and interests."

But this absence is also a shortcoming because it throws the baby out with the bathwater, reflecting a somewhat all-or-nothing attitude towards pre-existing curriculum, practices like instructional design (which attempt to anticipate the sequence and instructional interventions through which something can be taught or learned) as (more importantly to me) towards meta-cognitive skills, practices and tools to support the learners own definition of goals and paths.

Clearly, the appropriateness of pre-existing, curricular-based means of learning depends quite a lot on both what is being learned and the learner themselves. But there are times when it seems beyond question that simply following a set of instructions or looking something up is both the easiest and most common way to learn a fact or concept. Yet the relative lack (only 12 out of 79) of explicit reference to pre-existing learning resources [https://edtechbooks.org/-qsKK] does seem to support a pendulum-swing away from this older content-centric vision of learning. That may not be an entirely bad thing, as it has perhaps dominated for far too long, but in an effort to contrast it I do fear we sometimes overstate the lack of importance of content. I am NOT arguing that curriculum or content-focused education and learning is best or the only way, but that it does still have a place.

More importantly to me though, the absence in the diagrams of methods or tools to set goals and identify learning paths doesn't speak to their originators' lack of insight or understanding (these come from some of the smartest people I know) but instead that as a whole we are still grappling with how to reconcile the network age of seemingly infinite content, people, connections and activities, with our limited lifespans, limited abilities to pay attention, and limited energies to expend on any one thing.

This is what I was trying to get at in the revised version of my

[Becoming a Network Learner talk which I gave at the TLT conference in 2010 in Saskatchewan [https://edtechbooks.org/-Cjm]](https://edtechbooks.org/-Cjm). That it is great to swim in this vast ocean we call the Internet, but if we do so without reference points, without some direction, we run the risk of finding ourselves miles from shore, out of breath, unable to tread water any longer. The constant lament of information overload, internet distractedness, etc, seem very real to me.

The trouble in actually depicting this on a diagram is that it's not particularly a tool that is needed (though I do think things like social filters and constrained search, recommendation engines, etc can help.) It's more about constantly re-embedding (or remembering that they are already, or trying not to extract them from) these tools, these networks, these connections in our lives, in our goals, our dreams, our aims, which themselves WILL NOT magically emerge from the network.

This is also why I consistently resist what I see as the reification of an active process in the term "personal learning environment" in favour of simply talking about "network learning." For whatever reason, as soon as we start using nouns, we then want to categorize and enumerate every aspect of them, but in doing so too often lose sight that each of them is unique, that the common characteristics are emergent phenomena, and that as much as you can try to describe it for someone else, as much as you want to help them, it is only when we each do it for ourselves, as lived experience, that it becomes real. And for some reason, describing this using a verb/gerund like "network learning" seems to me to resist, ever so slightly, this tendency to try and abstract what needs to be a personal process into a general "thing."

All of which is to say, finally – the PLE is dead! Long live the PLE!

## Suggested Citation

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# E-Learning 2.0

## Stephen Downes

### Editor's Note

This was originally posted to [Stephen Downes's blog [https://edtechbooks.org/-wNF]](https://edtechbooks.org/-wNF) on October 17, 2005.

E-learning as we know it has been around for ten years or so. During that time, it has emerged from being a radical idea—the effectiveness of which was yet to be proven—to something that is widely regarded as mainstream. It's the core to numerous business plans and a service offered by most colleges and universities.

And now, e-learning is evolving with the World Wide Web as a whole and it's changing to a degree significant enough to warrant a new name: E-learning 2.0.

## Where We Are Now

Before talking about where e-learning is going, it is worth spending a few words to describe here we are now.

When we think of learning content today, we probably think of a [learning object [https://edtechbooks.org/-nLgm]](https://edtechbooks.org/-nLgm). Originating in the world of computer-based delivery (CBT) systems, learning objects were depicted as being like [lego blocks [https://edtechbooks.org/-gjo]](https://edtechbooks.org/-gjo) or [atoms [https://edtechbooks.org/-pPc]](https://edtechbooks.org/-pPc), little bits of content that could be put together or organized. Standards bodies have refined the

concept of learning objects into a rigorous form [http://ltsc.ieee.org/wg12] and have provided specifications on how to sequence and organize these bits of content into courses [https://edtechbooks.org/-CVBg] and package them for delivery [http://www.intrallect.com] as though they were books or training manuals.

Today, e-learning mainly takes the form of online courses. From the resources distributed by MIT's OpenCourseware project [http://ocw.mit.edu/index.html] to the design of learning materials in Rice's Connexions project [https://edtechbooks.org/-BFs] to the offerings found from colleges and universities everywhere, the course is the basic unit of organization.

As a consequence, the dominant learning technology employed today is a type of system that organizes and delivers online courses—the learning management system (LMS). This piece of software has become almost ubiquitous in the learning environment; companies such as WebCT, Blackboard, and Desire2Learn have installed products at thousands of universities and colleges and are used by tens of thousands of instructors and students. The learning management system takes learning content and organizes it in a standard way, as a course divided into modules and lessons, supported with quizzes, tests and discussions, and in many systems today, integrated into the college or university's student information system.

In general, where we are now in the online world is where we were before the beginning of e-learning [1] [https://edtechbooks.org/-AaE]. Traditional theories of distance learning, of (for example) transactional distance, as described by Michael G. Moore [https://edtechbooks.org/-AMx], have been adapted for the online world. Content is organized according to this traditional model and delivered either completely online or in conjunction with more traditional seminars, to cohorts of students, led by an instructor,

following a specified curriculum to be completed at a predetermined pace.

# Trends

As we approach the halfway mark of the new millennium's first decade, the nature of the Internet, and just as importantly, the people using the Internet, has begun to change. These changes are sweeping across entire industries as a whole and are not unique to education; indeed, in many ways education has lagged behind some of these trends and is just beginning to feel their wake.

One trend that has captured the attention of numerous pundits is the changing nature of Internet users themselves. Sometimes called "digital natives" and sometimes called "n-gen," these new users approach work, learning and play in new ways [2] [https://edtechbooks.org/-yZc].

They absorb information quickly, in images and video as well as text, from multiple sources simultaneously. They operate at "twitch speed," [https://edtechbooks.org/-VDo] expecting instant responses and feedback. They prefer random "on-demand" access to media, expect to be in constant communication with their friends (who may be next door or around the world), and they are as likely to create their own media (or download someone else's) as to purchase a book or a CD [3] [https://edtechbooks.org/-zts].

The manner in which this new generation of users is changing markets is captured evocatively in a document called *The Cluetrain Manifesto* [http://www.cluetrain.com]. First posted online in April 1999, the document begins with the declaration that "markets are conversations" and continues with a redefinition of the relation between producer and consumer. "Markets are getting smarter, more informed, more organized... People in networked markets have figured out that they get far better information and support from one

another than from vendors." Jay Cross, writing in the same vein, talks about the "augmented learner" and the "hyper-organization" [4] [https://edtechbooks.org/-fGu].

In learning, these trends are manifest in what is sometimes called "learner-centered" or "student-centered" design. This is more than just adapting for different learning styles or allowing the user to change the font size and background color; it is the placing of the control of learning itself into the hands of the learner [5] [https://edtechbooks.org/-XLz].

"The changing demographics of the student population and the more consumer/client-centered culture in today's society have provided a climate where the use of student-centered learning is thriving" [6] [https://edtechbooks.org/-mLP]. Learning is characterized not only by greater autonomy for the learner, but also a greater emphasis on active learning, with creation, communication and participation playing key roles, and on changing roles for the teacher, indeed, even a collapse of the distinction between teacher and student altogether [7] [https://edtechbooks.org/-xIT].

Taking this approach even further is George Siemens's *Connectivism* [https://edtechbooks.org/-zKa]. "We derive our competence," writes Siemens, "from forming connections... Chaos is a new reality for knowledge workers... Unlike constructivism, which states that learners attempt to foster understanding by meaning-making tasks, chaos states that the meaning exists— the learner's challenge is to recognize the patterns which appear to be hidden. Meaning-making and forming connections between specialized communities are important activities." Readers of Douglas Rushkoff's Cyberia will recognize a similar theme as knowledge-working is no longer thought of as the gathering and accumulation of facts, but rather, the riding of waves in a dynamic environment [8] [https://edtechbooks.org/-wgz].

The breaking down of barriers has led to many of the movements and

issues we see on today's Internet. File-sharing, for example, evolves not of a sudden criminality among today's youth but rather in their pervasive belief that information is something meant to be shared. This belief is manifest in such things as free and open-source software [http://www.fsf.org], Creative Commons licenses [http://creativecommons.org] for content, and open access [https://edtechbooks.org/-gKi] to scholarly and other works. Sharing content is not considered unethical; indeed, the hoarding of content is viewed as antisocial [9] [https://edtechbooks.org/-hkr]. And open content is viewed not merely as nice to have but essential for the creation of the sort of learning network described by Siemens [10] [https://edtechbooks.org/-kib].

Numerous writers, even, have called for what is often referred to as the "open society." Tapscott, for example, writes about "the transparent burger" [https://edtechbooks.org/-VfC] and "the naked corporation." [https://edtechbooks.org/-aVc] Mougayar tells us that "the future organization is an "open corporation." [https://edtechbooks.org/-cTM] And in a widely popular online essay Rob Paterson asked, "Is not the new "big idea" of our time to disintermediate the institutional middleman and to enable direct relationships? Are supermarkets eternal? Do we need factory universities to learn? Is our health dependent on a doctor? Is the news what we see on TV?" [11] [https://edtechbooks.org/-akc].

In short, the structures and organization that characterized life prior to the Internet are breaking down. Where intermediaries, such as public relations staff, journalists or professors, are not needed, they are disregarded. Consumers are talking directly to producers, and more often than not, demanding and getting new standards of accountability and transparency. Often, they inform the productive process itself, and in many cases, replace it altogether. Passive has become active. Disinterested has become engaged. The new Internet user may not vote, but that is only because the vote is irrelevant when you govern yourself

# The Web 2.0

The first sign that something was changing on the Web was the underground popularity of a site called *LiveJournal* [http://www.livejournal.com] and the very visible surge of interest in a site called *Friendster* [http://www.friendster.com]. These sites, which came to be called "social networking sites," were rapidly emulated by such services as Tribe [http://www.tribe.net], LinkedIn [http://www.linkedin.com], Google's Orkut [http://www.orkut.com], Flickr [http://www.flickr.com], and Yahoo 360 [http://360.yahoo.com]. Writers conversant with the works of social network analysts, people like Duncan J. Watts [https://edtechbooks.org/-nZz] and Mark Buchanan [https://edtechbooks.org/-tcu], for example, noticed that similar patterns existed in these online networks [12] [https://edtechbooks.org/-EcZA]. Something was happening here.

What was happening was that major parts of the World Wide Web were acquiring the properties of communications networks, the sorts of networks found to exist (albeit on a much smaller scale) in the physical world. And that the Web itself was being transformed from what was called "the Read Web" to the "Read-Write Web," [https://edtechbooks.org/-EHM] in accordance with Tim Berners-Lee's original vision [https://edtechbooks.org/-FEv]. Proponents of this new, evolving Web began calling it Web 2.0 and in short order the trend became a movement.

"Enter Web 2.0, a vision of the Web in which information is broken up into "microcontent" units that can be distributed over dozens of domains. The Web of documents has morphed into a Web of data. We are no longer just looking to the same old sources for information. Now we're looking to a new set of tools to aggregate and remix microcontent in new and useful ways" [13] [https://edtechbooks.org/-kCK].

In a nutshell, what was happening was that the Web was shifting from

being a medium, in which information was transmitted and consumed, into being a platform, in which content was created, shared, remixed, repurposed, and passed along. And what people were doing with the Web was not merely reading books, listening to the radio or watching TV, but having a conversation, with a vocabulary consisting not just of words but of images, video, multimedia and whatever they could get their hands on. And this became, and looked like, and behaved like, a network [https://edtechbooks.org/-Ikg].

Nowhere is this clearer than in the world of blogging. In a few short years the blog went from a few idiosyncratic Web sites to something used by millions of people empowered by content creation tools such as Blogger [http://www.blogger.com] and Wordpress [http://www.wordpress.org]. Even more importantly, these blogs were *connected* to each other through the mechanism of RSS [https://edtechbooks.org/-RFIy], a simple XML format that allows bloggers to send their content to a network of readers (called 'subscribers').

But it wasn't just blogging. Creating an online community became a snap with tools such as Plone [http://www.plone.org] and Drupal [http://www.drupal.org]. Moreover, using a collaborative writing tool called the wiki [https://edtechbooks.org/-NKt] Jimmy Wales and a few thousand of his friends created a site called Wikipedia [https://edtechbooks.org/-nW], rendering Encyclopedia Britannica obsolete in the process. Others, using the free audio-recording tool Audacity [https://edtechbooks.org/-KVn], began recording their own talk and music; this, when combined with RSS, became podcasting [https://edtechbooks.org/-rZY], a rapidly rising phenomena that is transforming what we think about radio.

For all this technology, what is important to recognize is that the emergence of the Web 2.0 is not a technological revolution, it is a social revolution. "Here's my take on it: Web 2.0 is an attitude not a technology. It's about enabling and encouraging participation through

open applications and services. By open I mean technically open with appropriate APIs but also, more importantly, socially open, with rights granted to use the content in new and exciting contexts" [14] [https://edtechbooks.org/-xpH].



# E-Learning 2.0

In the world of e-learning, the closest thing to a social network is a community of practice, articulated and promoted by people such as Etienne Wenger [http://www.ewenger.com/theory] in the 1990s. According to Wenger, a community of practice is characterized by "a shared domain of interest" where "members interact and learn together" and "develop a shared repertoire of resources."

For the most part, though, what constituted "community" in online learning were artificial and often contrived "discussions" supported by learning management systems [15] [https://edtechbooks.org/-gvX]. These communities were typically limited to a given group of learners, such as a university class, had a fixed start and end-point, and while substantially better than nothing, rarely approached Wenger's theory.

That's not to say no communities of practice were forming. There were some attempts to foster them, as for example MuniMall [http://www.munimall.net], directed toward the municipal governance sector, and PEGGasus [http://www.peggasus.ca], directed toward engineers and geophysicists. Moreover, as commentator Erin Brewer [https://edtechbooks.org/-oBn] has noted, places on the Internet like Yahoo! Groups have become a locus for community learning activities. But in general, the uptake has been slow, and the support from traditional institutions almost nonexistent.

Educators began to notice something different happening when they began to use tools like wikis and blogs in the classroom a couple of years ago. All of a sudden, instead of discussing pre-assigned topics

with their classmates, students found themselves discussing a wide range of topics with peers worldwide. Imagine the astonishment, for example, when, after writing a review of a circus she had viewed, a Grade 5 student received a response from one of the performers [16] [https://edtechbooks.org/-Ctk]. In a very short time, blogs were used for a wide variety of purposes in education [https://edtechbooks.org/-Ts]; an educational bloggers' network [https://edtechbooks.org/-YrPd] formed and by this year thousands of teachers were encouraging their students to blog.

Blogging is very different from traditionally assigned learning content. It is much less formal. It is written from a personal point of view, in a personal voice. Students' blog posts are often about something from their own range of interests, rather than on a course topic or assigned project. More importantly, what happens when students blog, and read reach others' blogs, is that a network of interactions forms-much like a social network, and much like Wenger's community of practice.

It's not just blogging. Educators have also taken an interest in podcasting. Some have started broadcasting, such as at McMaster, where engineering professors now host an online show [17] [https://edtechbooks.org/-QFP].

"We're talking to the download generation," said Peter Smith, associate dean, Faculty of Engineering. "Why not have the option to download information about education and careers the same way you can download music? It untethers content from the Web and lets students access us at their convenience." Moreover, using an online service such as Odeo [http://www.odeo.com], Blogomatrix Sparks [https://edtechbooks.org/-UNc], or even simply off-the-shelf software, students can create their own podcasts [http://podcast.fdfz.cn].

What happens when online learning ceases to be like a medium, and becomes more like a platform? What happens when online learning software ceases to be a type of content-consumption tool, where

learning is "delivered," and becomes more like a content-authoring tool, where learning is created? The model of e-learning as being a type of content, produced by publishers, organized and structured into courses, and consumed by students, is turned on its head. Insofar as there is content, it is used rather than read— and is, in any case, more likely to be produced by students than courseware authors. And insofar as there is structure, it is more likely to resemble a language or a conversation rather than a book or a manual.

The e-learning application, therefore, begins to look very much like a blogging tool. It represents one node in a web of content, connected to other nodes and content creation services used by other students. It becomes, not an institutional or corporate application, but a personal learning center, where content is reused and remixed according to the student's own needs and interests. It becomes, indeed, not a single application, but a collection of interoperating applications—an environment rather than a system.

It also begins to look like a personal portfolio tool [18] [http://eport2.cgc.maricopa.edu]. The idea here is that students will have their own personal place to create and showcase their own work. Some e-portfolio applications, such as ELGG, have already been created. IMS Global as put together an e-portfolio specification [19] [http://www.imsglobal.org/ep]. "The portfolio can provide an opportunity to demonstrate one's ability to collect, organize, interpret and reflect on documents and sources of information. It is also a tool for continuing professional development, encouraging individuals to take responsibility for and demonstrate the results of their own learning" [20] [https://edtechbooks.org/-jND].

This approach to learning means that learning content is created and distributed in a very different manner. Rather than being composed, organized and packaged, e-learning content is syndicated, much like a blog post or podcast. It is aggregated by students, using their own personal RSS reader [http://www.bloglines.com] or some similar

application. From there, it is remixed and repurposed with the student's own individual application in mind, the finished product being fed forward to become fodder for some other student's reading and use.

More formally, instead of using enterprise learning-management systems, educational institutions expect to use an interlocking set of open-source applications. Work on such a set of applications has begun in a number of quarters, with the E-Learning Framework [http://www.elframework.org] defining a set of common applications and the newly formed e-Framework for Education and Research [http://www.e-framework.org] drawing on an international collaboration. While there is still an element of content delivery in these systems, there is also an increasing recognition that learning is becoming a creative activity and that the appropriate venue is a platform rather than an application.

In the future it will be more widely recognized that the learning comes not from the design of learning content but in how it is used. Most e-learning theorists are already there, and are exploring how learning content-whether professionally authored or created by students— can be used as the basis for learning activities rather than the conduit for learning content.

A great amount of work is being done, for example, in educational gaming and simulations. Theorists such as Seymour Papert, James Paul Gee, Clark Aldrich, and Marc Prensky have all touted the efficacy of games.

Papert writes, "The most important learning skills that I see children getting from games are those that support the empowering sense of taking charge of their own learning. And the learner taking charge of learning is antithetical to the dominant ideology of curriculum design" [21] [https://edtechbooks.org/-UXV]. This is most evidenced when learners engage not only in playing, but in the design, of games. In

the gaming world this practice is widely recognized and encouraged—game "modding" allows players to make the game their own. [22] [https://edtechbooks.org/-Hzm].

Where games encourage learning is through the provision of what a student needs to know in a context where it will be immediately used. As Gee recommends, "Words are only meaningful when they can be related to experiences," said Gee. If I say "I spilled the coffee," this has a different meaning depending on whether I ask for a broom or a mop. You cannot create that context ahead of time— it has to be part of the experience. And in just the same way, the science text doesn't make any sense to someone who has not done any science (though it makes a great deal of sense to an experienced scientist)" [23] [https://edtechbooks.org/-Zsp].

A similar motivation underlies the rapidly rising domain of mobile learning [24] [https://edtechbooks.org/-vLv]—for after all, were the context in which learning occurs not important, it would not be useful or necessary to make learning mobile. Mobile learning offers not only new opportunities to create but also to connect. As Ellen Wagner and Bryan Alexander note, mobile learning "define(s) new relationships and behaviors among learners, information, personal computing devices, and the world at large" [25] [https://edtechbooks.org/-fek].

As this trend progresses, we find ourselves in a world characterized by the phrase "ubiquitous computing." "Where virtual reality puts people inside a computer-generated world, ubiquitous computing forces the computer to live out here in the world with people" [26] [https://edtechbooks.org/-PgY]. The "Father of ubiquitous computing," Mark Weiser, compares computing of the future to writing. "Today this technology is ubiquitous in industrialized countries. Not only do books, magazines and newspapers convey written information, but so do street signs, billboards, shop signs and even graffiti" [27] [https://edtechbooks.org/-KmH].

In the world of learning, what this means is having learning available no matter what you are doing. Jay Cross captures this idea in the concept of "workflow learning." Sam Adkins writes, workflow learning is "a deep integration with enterprise applications assembled from Web Services into composite applications" with "task and work support fused into the aggregated business processes that make up the real-time workflow" and supported by "contextual collaboration with people and systems" and "design and modification achieved by modeling and simulation" [28] [https://edtechbooks.org/-JoF].

Of course, there is no reason to expect that this form of learning would be restricted to the workplace. Learning integrates into every aspect of our lives, from daily household chores to arts and culture. Learning and living, it could be said, will eventually merge. The challenge will not be in how to learn, but in how to use learning to create something more, to communicate.

## Suggested Citation

*Downes, S. (2019). E-Learning 2.0. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/e-learning_2.0*

# The Role of Personality in Education

## Martin Weller

### Editor's Note

This was originally posted to [Martin Weller's blog [https://edtechbooks.org/-fDr]](https://edtechbooks.org/-fDr) on July 9, 2015.



[https://edtechbooks.org/-dFv]

This is one of those posts where I don't have a firm conclusion, I'm just thinking some stuff through. I've been thinking a bit about what the role of personality is in eduction, particularly online and distance ed. In my own institution, The Open University, there has been a long

tradition of removing the personal from teaching material. While the course materials we produce are written in an accessible manner, they are not imbued with one person's personality. Although one academic may write them, they go through multiple reviews, and editing. Course units are often attributed to the "The Module Team", or "written by X on behalf of the Module Team". The idea is that this is an objective view, created through collaboration to distill clear teaching material. The trouble with making them based around a personality is that this can be a barrier to accessing the content, if you don't respond well to that particular personality (but the opposite is also true, it can be a boost if you do like that person). When I joined the OU removing myself from the writing was one of the difficult aspects of learning to write distance ed material, while still keeping it engaging and not too 'dry'. I mean, who wouldn't want my personality stamped all over their units on Artificial Intelligence, right? (don't answer that).

Now, many of my more constructivist inclined colleagues will laugh at the idea that any teaching content can ever be objective, or that it isn't shot through with individual assumptions, cultural history, etc. This is true to an extent, but less so when you adopt a deliberate policy of writing from a collaborative perspective and specifically looking for cultural bias (this is always one of the aspects of peer review that we ask people to comment upon).

But then along come MOOCs, and they're all about the personality. Ironically, I find that cMOOCs, for all their intentions at being hierarchical and distributed, have a very strong cult of personality driving them. To be successful they often require someone with a well established online network to gather enough momentum, and because creating successful cMOOCs is hard work, that person usually needs to really be central in driving the course forward. And when this works well, it really does create a very engaging learning community. As you'll know, I'm a BIG FAN of Jim Groom, but it's hard to say that DS106 isn't a product of Jim's online personality. Indeed it is all about

that, which is exactly why it's fun. Similarly, I think Dave Cormier's Rhizo courses are truly innovative and beginning to explore what a networked take on education might look like. But I think Dave's (loveable, cuddly) personality is a big factor in its success. And then there are xMOOCs with Rock star professors. There is even talk of actual rock stars (or film stars anyway) presenting MOOCs [https://edtechbooks.org/-KiN].

This all takes place in the context of social media now of course, which wasn't the case with original OU material. Whenever I do my social media for academics sessions, I always stress that it's called social media for a reason, so put a bit of yourself in there. What I'm genuinely unsure about is the extent to which we should deliberately seek to place the learning process. If we remove it, learning can become dull and dry and possibly out of sync with the social media world it needs to operate within. But if we place too much emphasis on it, we risk highlighting the extrovert academic, the jokester, the good looking one, above academics with better subject skills. I'm just sharing my pondering here, not making a call one way or the other.

## Suggested Citation

*Weller, M. (2019). The Role of Personality in Education. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/role_of_personality*

# Digital Identities

## Six Key Selves of Networked Publics

## Bon Stewart

### Editor's Note

This was originally posted to Bon Stewart's blog [https://edtechbooks.org/-Mhk] (as part of an online course) on May 6, 2012.

This week's discussion bridges from and builds on last week's topic [https://edtechbooks.org/-GbV], facilitated by George Veletsianos. Like George's work, mine focuses on practices and participation and how these function. George, however, looks specifically at scholars: my interest is in the broader concept of identity and how we are shaped by our digital practices.
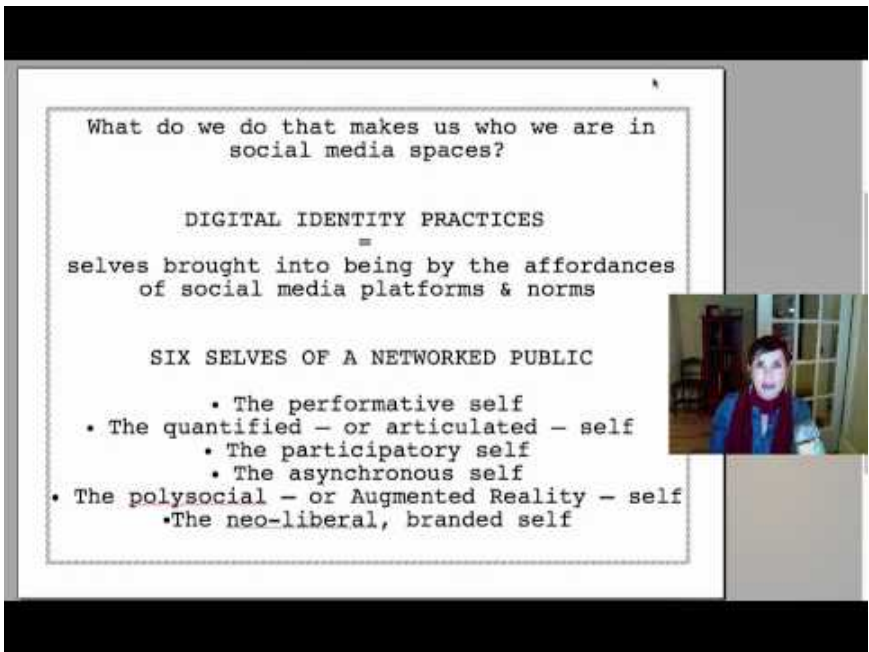
George's work is premised in looking at what Selwyn & Grant [https://edtechbooks.org/-hGV] call the "state of the actual;" my work straddles both actuality and potentiality. I am interested in what we do that makes us who we are in social media spaces, thus my concept of digital identity is practice-based. At the same time, I see identity as a lens through which we can examine the potentialities specific to social networks. I use the concept of identity to explore what it is that social software makes possible in practice.

The Wikipedia definition of "digital identity [https://edtechbooks.org/-ACP]" frames it, more or less, as the set of

data constituted by a person's interactions online, and that specific user's psychological relationship to his or her data trail.

For the purposes of our discussion this week, I'd like to expand the definition beyond the traces and trails we leave behind for Google to find, and frame digital identities as the selves brought into being by the affordances – the specific structures and norms – of social media and what danah boyd calls "networked publics [https://edtechbooks.org/-hBn]."

Here's a short(ish) introductory video to some of the basic premises of this week's discussion.



Watch on YouTube https://edtechbooks.org/-XMs

# Six Key Selves of Networked Publics

If you'd like to delve a little deeper than just the video, below are six key digital "selves" that I'd like to discuss and explore this coming week. They're by no means an exhaustive list, so input and additions are very welcome, but they introduce some of the ways in social media norms and affordances impact identity practices. Links offer a bit of further reading – formal papers, blog posts, videos, all sorts of resources – in each of these directions. Following those trails is, of course, optional.

In the livechat on Wednesday, these six aspects of digital identity – and the implications they hold for higher education – will be the focus of our discussion.

## 1. The Performative, Public Self

The networked self is neither a discrete, unique snowflake that can be examined entirely unto itself, outside relationality, nor a generic group member. The networked self is linked in multiple, complex, individual node-to-node relationships with others as part of an ever-shifting public. It is also [performative [https://edtechbooks.org/-Hmb],](https://edtechbooks.org/-Hmb) constituting itself within that public through its practices and gestures.

Within network publics the performative self experiences both the flattening of hierarchies across space and status (I talked to theorist Henry Giroux on Twitter the other day! And he followed me back! Yay! Access!) and the network theory principle that big nodes are more likely to attract attention and links (Giroux didn't actually talk back to me. Boo. Sniff. But his semi-celebrity status in the world of academia means he's always going to have a wider pool of people aware of him and clamouring for his attention).

The performative self in networked publics tends to be conscious of

his or her multiplicity and performative nature: Rob Horning's post on the data self [https://edtechbooks.org/-qvi] does a very entertaining job of encapsulating much of how this self differs from previous cultural conceptions of identity and subjectivity.

## 2. The Quantified – or Articulated – Self

In social networks, our network contacts are visible and articulated, and our actions and contributions are quantified [https://edtechbooks.org/-Fsh]. This makes the act of choosing to follow or "friend" another person always already a public, performative statement (see above) and likewise a notch in the belt of one's personal metrics. Status and scale in social networks are frequently treated as overtly measurable attributes, tracked in clicks and follows and @s and likes by tools like Klout: I have hesitancies about the applications and limitations of algorithms as stand-ins for identity [https://edtechbooks.org/-bIR], especially when we begin to think about the self in learning contexts.

## 3. The Participatory Self

The participatory, networked self is not only mobile and connected, never fully disengaged from the communications of the network, but is able to engage and contribute at a click to the self-presentation of others. This is based in part on the produsage [https://edtechbooks.org/-rWT] or prosumer [https://edtechbooks.org/-xSb] nature of networked publics, merging production and consumption: within my networks I am both a creator of my own content but also a consumer of that which my peers produce and share. My relationships are groomed by the constant iterative work of participation, and my comfort with working in isolation towards a final product – as was the paper model of creative work – recedes in the rear-view mirror.

## 4. The Asynchronous Self

Simply put: I hate when my phone rings. And [I'm not alone [https://edtechbooks.org/-ppe]](https://edtechbooks.org/-ppe). Digital sociality practices and networked publics moved increasingly towards asynchronous mediated communications, rather than the interruptive, immediate demands of telephones. Last night, as I tried to record the video for this post, my stepmother called. Twice. I rest my case? ;)

## 5. The PolySocial – or Augmented Reality – Self

Contrary to much of the digital identity scholarship of the 1990s, which tended to emphasize the fluidity of identity uncoupled from the gendered and signified body – the "on the Internet, nobody knows you're a dog" theme – the concept of networked publics has given rise to a far more enmeshed notion of reality. Drawing from this, my work frames digital identities not as virtual selves, but as particular subjects brought into being by our relational, mobile interactions in the world of bits and extending into the world of atoms.  My networks and relationships – and therefore my identities – exist within the enmeshed and multi-faceted realities of contemporary human interaction.

On the [cyborgology [https://edtechbooks.org/-CiQ]](https://edtechbooks.org/-CiQ) blog, Nathan Jurgenson, PJ Rey et al have done an exceptional job of examining and detailing the complexities of what they call [Augmented Reality [https://edtechbooks.org/-cKn]](https://edtechbooks.org/-cKn), or the enmeshed and mutually influential confluence of atoms and bits. Sally Applin and Michael Fischer offer the somewhat differently framed concept of [PolySocial Reality [https://edtechbooks.org/-RbG]](https://edtechbooks.org/-RbG) to explore the interoperability of contemporary contexts.

And from the perspective of someone who once pretended to be a dog, Alan Levine (@cogdog) has a great [video keynote [https://edtechbooks.org/-hSp]](https://edtechbooks.org/-hSp) narrating his experiences as a self in

the enmeshed world of atoms and bits.

## 6. The Neo-Liberal, Branded Self

Our social networking platforms are increasingly [neo-liberal "Me, Inc" spaces [https://edtechbooks.org/-NFs]](https://edtechbooks.org/-NFs) where we are exhorted to monetize and to "[find our niche [https://edtechbooks.org/-GQI]](https://edtechbooks.org/-GQI)." I've argued that in these spaces, no matter how we choose to perform our identity, we end up [branding ourselves [https://edtechbooks.org/-iby]](https://edtechbooks.org/-iby).

So. Six starting places for conversation. Recognize any of these? Do any resonate with your own practices?

And have any of them been part of your #change11 experience? I'm hoping that the discussions this week will serve as a bit of a retrospective for the course, from a polysocial identity point of view: how has participation (even peripheral participation) in a distributed, networked learning experience like this shaped your sense of self?

## Suggested Citation

*Stewart, B. (2019). Digital Identities: Six Key Selves of Networked Publics. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/digital_identities*

# Kith

## Kate Bowles

### Editor's Note

This was originally posted to [Kate Bowles's blog \[https://edtechbooks.org/-fyw\]](https://edtechbooks.org/-fyw) on June 10, 2017.

> Kith originally meant native land or country, not just in the sense of one's place of birth or ancestry, but in the sense of a loving, intimate, friendly relationship with the landscape of home, the place you come from and the people and things that share it with you. Kith is not only the place you know and love, but the place that knows and loves you back.
>
> Susan Beal, [A Place of Love \[https://edtechbooks.org/-zEm\]](https://edtechbooks.org/-zEm)

We're watching the UK election, and my daughter says: can you still vote there? It's been so long, I'm not sure. I don't think so.

Home 2017, image by Kate Bowles

But I know that in the background of every news shot, I'm watching the summer light in the sky and thinking about long evenings, and chalk and flint farmland. This is the practical condition of homesickness: at the sound of a thrush or the thought of a real beer in a proper pub, it flares up like a headache.

In the small community where I live I can drive past three homes I've lived in as an adult, and the ghost of another. Above the surf club there used to be a rundown weatherboard beach house that has been replaced by a showy oceanfront mansion. It was the first house I stayed in when I came here to work. It was rambling and unrenovated, filled with someone else's Australian childhood furniture. I could walk out in the morning and drink a mug of coffee sitting on a low wall watching the sun come up over the ocean. I really loved it.

Since then we've moved around within a very small area, street hopping, trying to stay close to the ocean. Each of our three daughters was brought home from the local hospital to start life in a different house; finally when the older ones were very little, one and two, we stopped rolling and settled in the home where we now live. They all learned to ride scooters and bikes in this street, and then skateboards, and now two of them drive cars, more or less.

Our street, 2011, Kate Bowles

This morning I drove my daughter to her work, and then dropped off a friend of hers who had stayed overnight. We talked about how we each appreciate living in this place. She's 17, she's been away for six months and come back, and can't believe her luck at still living here. I drove and listened, and didn't say: I remember you when you were five years old. But what I was really thinking was that I didn't grow up here. This is not my home. And everyone who was a child here, learned these streets by walking with small feet, will have a different way of seeing the big sky and the escarpment and even the wide Pacific ocean, than I do, because I still see it with a shock of not belonging, every day.

I have no kith here, and I shouldn't. It's not my place. It's not my place to love, to ask it to love me back.

2

> In March 1797 at Ninety Mile Beach in Victoria, five British and 12 Bengali seamen swam ashore after their longboat was ripped apart in a storm.

> Sydney, a town of barely 1,500 people, was over 700 kilometres to the north. Meanwhile, their fellow-survivors from the wreck of the Sydney Cove were stranded further south, on a tiny island in the Bass Strait.

I listened to historian Mark McKenna tell [this story on the radio [https://edtechbooks.org/-yDb]](https://edtechbooks.org/-yDb) as I was driving through this country that I see as beautiful, and where I didn't grow up.  The seventeen sailors washed up on a stretch of coastline still described today as "untamed", and set off to walk. They walked for two months, running out of food and leaving people behind. On May 15, three survivors were seen from a fishing boat, crawling along a beach just north of here. They had walked 800 km. One was from Scotland, and one was Bengali. The other, I don't know. They had foraged and swum and climbed and been poisoned by eating the wrong things, and interacted regularly with Aboriginal people without whose help and guidance and foodsharing they would not have survived.

What did they make of any of it? When they were rescued and made it to Sydney Cove, how did these three sailors feel about where they had arrived, where they had been? How did they come to terms with the fact of the people who had shared resources and knowledge with them, who had showed them where to go and what to eat and how to overcome their own fundamental unfitness to be in this country?

What did it mean to each of them, different as they were, to be so far away, to be so *kithless*?*

3

This week I'm part of a rolling conversation on digital citizenship as a metaphor for thinking about how we manage our aspirations, responsibilities and resources in creating an online environment that works. It's an annual conversation curated by people who think and care about citizenship, and this year it's run into trouble with the idea of citizenship as a metaphor for anything, in these times of walls and borders and sinking boats and offshore processing centres of astonishing cruelty and even, really this is a thing now, *calls for a return to internment.*

I'm one of those who feels that citizenship can't work as a benign metaphor now, and perhaps it never could. I hold two passports and I can only see citizenship as a bureaucratic exercise in which I don't know if I can vote in one place, but voting is compulsory in the other. I have bank accounts and pay tax in both; I have healthcare rights in both, just about. The apparatuses of both states treat me well, and recognise my children as connected to me. But none of this suggests to me that citizenship is anything other than the grounds of our refusal to care for others as we'd like to be cared for if misfortune tore us from our homes and threw us onto the mercies of others.

I've been helped in my thinking about belonging and statelessness by Amy Collier's recent post on the [hidden immigrant](https://edtechbooks.org/-MRA) [https://edtechbooks.org/-MRA], the immigrant who passes in two places but is at home in neither. Amy asks whether this idea of belonging and not belonging helps us get beyond the difficulty of applying citizenship as a metaphor for what we do online (especially as this is far more obviously regulated by capital than by any state). At the end of her post, Amy raises the question of digital kinship, a term I'm drawn to because of the way it sits with ideas about kindness. Kindness (kin-ness) has ancient origins that connect us both to nature and to relationships, and took me back to kith (as in "kith and kin"), and the importance of knowing the place where we are, the way that knowing place nourishes our capacity to belong.

Where can we experience anything like kith online? Are there places that we love online, environments where we feel at home, that seem to love us back? Is this about user experience, or ethos? Is it about the trust we're willing to place in design, in what data is kept and what is done with it? Can we feel at home under conditions of continual digital surveillance? Can we love a place that is manipulating us for business or political gain? Is it ever possible to experience kith when the whole thing is set up, controlled, regulated and organised in service of values we don't share?

For the moment, it seems to me that these questions are worth asking, and move us beyond a narrow dispute about citizenship as a metaphor.

**#digciz**

Last week's #digciz conversations came to rest on the question of belonging, and next week with my colleague Maha Bali I'll be taking up the organisers' invitation to think about what comes next. There's a separate post coming about that. But in the meantime, we both hope you will join us next week on Twitter and other places where you feel at home online. You can read some of Maha's thoughts on citizenship [here \[https://edtechbooks.org/-DQD\]](https://edtechbooks.org/-DQD).

*(kithless: [not knowing anyone, having no acquaintances or family \[https://edtechbooks.org/-yHQN\]](https://edtechbooks.org/-yHQN).)

## Suggested Citation

*Bowles, K. (2019). Kith. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/kith*

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# Nobody's Version of Dumb

## Sherri Spelic

### Editor's Note

This was originally posted to [Sherri Spelic's blog](#) on September 9, 2017.



Shoes by [Vincent Van Gogh](#) CC0

I spend a lot of time on Twitter. I follow more people than I can actually keep up with and miraculously a bunch more follow me and I apologize that I can't just follow right back. I'm overwhelmed. I lose threads and also get lost in reading. I miss a lot and what I catch can probably be attributed to Twitter's algorithmic sorting which keeps the folks I most interact with close to the top of the tweets I will see. It's an imperfect system. My interests and responses are being guided, steered, nudged to achieve the golden data outcome of 'maximum engagement.' As long as I keep clicking around on the platform and rewarding the algorithm that delivers those precious "In case you missed it" messages, I am holding up my end of the user-platform bargain. Twitter stays in business and I cultivate my little networked worlds almost as intricately as my 9 year-old's Minecraft creations.

Then along comes a short thread like this:

> no surprise. I find my twitter network to be homogenous. Tweet something that resonates, RTs happen. Tweet something out of scope. Crickets [https://t.co/SXl5NtSRcL](https://t.co/SXl5NtSRcL)
>
> — George Siemens (@gsiemens) [September 7, 2017](September 7, 2017)

> Social media is a net negative. It has closed us off and created little safe spaces where we talk with people we agree with.
>
> — George Siemens (@gsiemens) [September 7, 2017](September 7, 2017)

Sadly, bright and intelligent people are reduced to RTing pithy statements rather than thinking. Twitter makes smart people dumb.

— George Siemens (@gsiemens) [September 7, 2017](#)

There's more but that's the core.

I know this lamentation. It is familiar and well worn and different figures deploy it at different junctures. Of course, [@gsiemens](#) is not just anybody. He's a public intellectual, well recognized in the tech and higher ed circles I frequent. So I also hesitate to publicly push back on this particular take. But, alas. I get tired of authority type voices telling me and others that Twitter is making us dumb.

Speak for yourself, I say. Rain on your own parade, not mine.

Look. Not everyone who comes to social media is looking for a fight. We have not arrived here to recreate Greek forms of debate. We are not showing up so that we can rattle our intellectual sabres. We are not turning up to punch each others' academic lights out, argument for carefully crafted argument.

I, for one, came because I was looking for others who could help me grow. I was in the market for good writing and good people and I found them. The longer I stayed and the more I engaged, good people *found me*. Good writing – I mean, strong, critical, robust and also sensitive writing walked right up to me and said, "Hi!" I got involved. I created adjoining spaces and fashioned [a new home](#) to welcome some of that rich writing. And I found art, humor, compassion, support, care, and (*praise hands*) Black Twitter. My life has been tremendously enlivened and broadened through my social media connections. I am a smart person who is more open, more aware, more vocal and more critical due to my connections via social media.

You will rarely find me putting up my verbal dukes on Twitter but I will support those who do it well. When authority type voices trot out these blanket statements about our shared intellectual demise, they offer a point of view that can be as narrow and constrained as those they accuse of the same offense. And often such voices enjoy the comfort and yes, privilege, of established recognition through institutions, publications, speaking invitations and considerable social media reach. These statements seem to come when these, usually male, individuals no longer feel "challenged" – when their membership in the social media 'Gifted and Talented' program is losing clout.

When I first ran across this thread, I wanted to ignore it. Give it the 'ho, hum, somebody's bored' non-response. But the annoyance stayed with me because I felt in those few tweets that my experience and the experience of too many others were being denied. And thoughtlessly so.

Some of us are here for community; to gather and confer with the like minded. To remind each other that our presence matters. For someone with a particular kind of status, this aspect might easily be overlooked. Not for me. I come to Twitter to prove to myself again and again that I have a voice and know how to use it. In other circles, my voice, my presence runs the very real risk being inaudible, invisible. But for an authority voice type, this instance may not occur or even register.

Formulating this kind of push back takes energy. It takes energy away from some things I'd rather read and write about. And I don't wish to expend more energy delving into the right-left Twitter divide article which prompted these tweets. When George Siemens claims that his network is fairly homogeneous, that is something that he can fix if it's a priority. But to drag us all down into a space that he in a later tweet describes as "closed, intolerant, narrow minded, and short sighted" is decidedly unfair and unnecessary and I refuse to be placed there by

proclamation from on high.

Maybe this is precisely how and why I persist on social media: Refusing to be placed somewhere by someone who is not me. I place and position myself. I speak my own mind. I pick my own battles. I am nobody's version of dumb.

Note: The image is from the [The Met collection of Public Domain images](#) which is well worth a visit.

## Suggested Citation

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# something is rotten in the state of … Twitter

## Bon Stewart

### Editor's Note

This was originally posted to [Bon Stewart's blog](#) on September 2, 2014.

I read another article yesterday on The Death of Twitter: they're multiplying, these narratives, just like the fruit flies in my kitchen.

Like fruit flies, these lamentations for Twitter do not spontaneously generate, but are born from a process of decay: they are the visible signs of something left neglected, something rotting quietly out of sight.

Since I'm currently in the extended throes of researching Twitter for my dissertation, I read these articles like I used to read *Cosmo* back when I was twenty: half-anxious that Enlightenment will be contained in the next paragraph, half-anxious it won't. When I was twenty, I had *Cosmo* to make me feel miserable about the gap between what I valued and what I saw reflected and valued by the world. These days, I have [The End of Big Twitter](#).

I wonder about what it means to research something changing so quickly, so drastically. Will my dissertation end up being about the Twitter that *was*, rather than whatever it is in the process of

becoming? Can a person become an historian by accident?

Is this all there is to say, anymore?



Amy @AmyOnceAgain · 3m
@bonstewart @sarahnowandthen I feel like I'm on an empty street shouting and no one listens and I can't hear anything.

2:06 PM - 31 Aug 2014 · Details

Hide conversation          ↩ Reply  ★ Favorite  ••• More

Because once there was more, at least for me. Way back in the arcane days of 2006 and 2007, I went to live among another culture – participatory culture, in its heyday – and felt at home for the first time. A particular confluence of privilege and obscurity and the need to speak things I had no place to speak aloud contributed…and the experience was mostly good. Not always ideal, by any means, but networks and Twitter in particular opened for me whole worlds of conversations and ties that I would never – flat-out – otherwise have had access to. And those conversations and ties have shaped my identity, my work, and my trajectory in life dramatically over the last eight years. Yet I sense the conditions that made all that possible shifting, slipping away.

I do not know what comes next, at this strange intersection. This post is My Own Private Fruitfly: its lifespan short and humid. It may be dead or obsolete in fifty days. But it is what I see, here and now, on the heels of a sweltering and disturbing August.
***

# "The Death of Twitter" is Not About Twitter

I'm no great fan of their [recent platform changes](#) and even less of the

likelihood that they're about to make what I see in my feed far more algorithmically-determined, a la Facebook. But I don't think a new platform will arise to save what's getting lost and lamented about Twitter. The issue all the articles point to is about Twitter As We Knew It (TM) as a representation of an era, a kind of practice. At the core, it is about the ebbing away of networked communications and participatory culture – or at least, first-generation participatory culture as I knew it, as [Jenkins](#) is perhaps best-known for describing it.

It is also about the concurrent rise of what I *hope* is peak Attention Economy.

(Of course, the founding premise of the Attention Economy is there's no such thing as too much Attention Economy, so yeh, I'm probably wrong on the peak front .)

## Consolidation of the Status Quo

Some of this is overt hostile takeover – a trifecta of monetization and algorithmic thinking and status quo interests like big brands and big institutions and big privilege pecking away at participatory practices since at least 2008.

*…Oh, you formed a little unicorn world where you can communicate at scale outside the broadcast media model? Let us sponsor that for you, sisters and brothers. Let us draw you from your domains of your own to mass platforms where networking will, for awhile, come fully into flower while all the while Venture Capital logics tweak and incentivize and boil you slowly in the bosom of your networked connections until you wake up and realize that the way you talk to half the people you talk to doesn't encourage talking so much as broadcasting anymore.* Yeh. Oh hey, *that* went well.

And in academia, with Twitter finally on the radar of major

institutions, and universities issuing social media policies and playing damage control over faculty tweets with [the Salaita firing](#) and even more recent, deeply disturbing rumours of institutional interventions in employee's lives, this takeover threatens to choke a messy but powerful set of scholarly practices and approaches it never really got around to understanding. The threat of being summarily acted upon by the academy as a consequence of tweets – always present, frankly, particularly for untenured and more vulnerable members of the academic community – now hangs visibly over all heads...even while the medium is still scorned as scholarship by many.



Bonnie Stewart @bonstewart · Aug 7

academia, this whole "Twitter counts enough to get you fired but not hired" mindset is why we can't have nice things.

134  118

# You're Doing It Wrong

But there's more. The sense of participatory collective – always fraught – has waned as more and more subcultures are crammed and collapsed into a common, traceable, searchable medium. We hang over *each other's* heads, more and more heavily, self-appointed swords of Damocles waiting with baited breath to strike. Participation is built on a set of practices that network consumption AND production of media together...so that audiences and producers shift roles and come to share contexts, to an extent. Sure, the whole thing can be gamed by the public and participatory sharing of sensationalism and scandal and sympathy and all the other things that drive eyeballs.

But where there are shared contexts, the big nodes and the smaller nodes are – ideally – still people to each other, with longterm,

sustained exposure and impressions formed. In this sense, drawing on Walter Ong's work on the distinctions between oral and literate cultures, [Liliana Bounegru has claimed that Twitter is a hybrid](): orality is performative and participatory and often repetitive, premised on memory and agonistic struggle and the acceptance of many things happening at once, which sounds like Twitter As We Knew It (TM), while textuality enables subjective and objective stances, transcending of time and space, and collaborative, archivable, analytical knowledge, among other things.

[Thomas Pettitt]() even calls the era of pre-digital print literacy "The Gutenberg Parenthesis;" an anomaly of history that will be superceded by secondary orality via digital media.

Um...we may want to rethink signing up for that rodeo. Because lately secondary orality via digital media seems like a pretty nasty, reactive state of being, a collective hiss of "you're doing it wrong." Tweets are taken up as magnum opi to be leapt upon and eviscerated, not only by ideological opponents or threatened employers but by in-network peers...because the Attention Economy rewards those behaviours. Oh hai, print literacies and related vested interests back in ascendency, creating a competitive, zero-sum arena for interaction. Such fun!

> **Bonnie Stewart** @bonstewart · 9h
> the problem with 2014 Twitter, short version: being constantly on guard against saying the wrong thing leaves not much left to say.
>
> ↩    ⟲ 4    ★ 13    •••

Which is not to say there's no place for "you're doing it wrong." Twitter, dead or no, is still a powerful and as yet unsurpassed platform for raising issues and calling out uncomfortable

truths, as shown in its [amplification of the #Ferguson protests to media visibility](#) (in a way [Facebook absolutely failed to do](#) thanks to the aforementioned algorithmic filters). Twitter is, as my research continues to show, [a path to voice](#). At the same time, Twitter is also a free soapbox for all kinds of shitty and hateful statements that minimize or reinforce marginalization, as any woman or person of colour who's dared to speak openly about the raw deal of power relations in society will likely attest. And calls for civility will do nothing except reinforce a respectability politics of victim-blaming within networks. This intractable contradiction is where we are, as a global neoliberal society: Twitter just makes it particularly painfully visible, at times.

# Impossible Identities

Because there is no way to win. The rot we're seeing in Twitter is the rot of participatory media devolved into competitive spheres where the collective "we" treats conversational contributions as fixed print-like identity claims. As Emily Gordon notes, musing about [contemporary Twitter as a misery vaccuum](#), the platform brings into collision people who would probably never otherwise end up in the same public space. Ever. And that can be amazing, when there are processes by which people are scaffolded into shared contexts. Or just absolutely exhausting. We don't know how to deal with collapsed publics, full stop. We don't know how to talk across our differences. So participatory media becomes a cacophonic sermon of shame and judgement and calling each other out, to the point where no identity is pure enough to escape the smug and pointless carnage of petty collective reproach.

**Retweeted by James Schirmer**

**Calm Tomb** @CalmTomb · 7h

Don't keep nudes on your computer. Don't have a computer. Pay your bills with coins. Communicate using birds. Shun modernity. Buy a farm.

Expand        ↩ Reply    ↻ Retweet   ★ Favorite  ⋯ More

Somewhere, [Donna Haraway](#) and her [partial, ironic, hybrid cyborg](#) weep, I think.

This doesn't mean I'm leaving Twitter. I'm not leaving Twitter. If this post is a fruit fly signalling rot, it is likewise the testament of a life dependent on the decaying platform for its sustenance. The fruit is still sweet, around the rotten bits. And there is no other fruit in the basket that will do so well.
\*\*\*

*Perhaps it is not rot. Some would call it inevitable, part of the cycle of change and enclosure that seems to mark the emergence of all new forms of working and thinking together. I'm not so sure: that still smells to me like high modernity. Either way, I will miss Twitter As We Knew It (TM)...but I wonder: what am I not seeing yet? What paths of subversion, connection, hybridity are still open?*

*I'm over by the fruit bowl, listening.*

## Suggested Citation

*Stewart, B. (2019). something is rotten in the state of ... Twitter. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/rotten_twitter*

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(2) do not use it for commercial gain.

# cliqueonomics

## sava saheli singh

### Editor's Note

This was originally posted to [sava saheli singh's blog](https://edtechbooks.org/-aHN) on August 24, 2014.

I observe communities. I try to understand what makes communities come together and then cohere, how communities work to include and exclude people, what the parameters of that inclusion and exclusion are, and what effect that might have on people within and without those communities. we can form community around our love of coffee, our emotional response to particular music or tv shows, or our need for cat gifs. we also form communities around social and personal experiences. communities are important places for support, love, and connection. but we know this.

as much as I am sensitive to why communities are formed, I'm also sensitive to who gets left out and why. there are those we should be wary of (like people with malicious intent) but in our zeal to "belong", we sometimes overlook people we might be keeping out because of things we take for granted.

I found myself thinking about this a little more than usual recently because of a couple of things.

a few days ago, [The Digital Ecologies Research Partnership](https://edtechbooks.org/-kIC) was launched. it has an aptly named

website, too: [http://derp.institute/](http://derp.institute/). the partnership was formed to allow researchers access to data across the social network platforms Reddit, Twitch, and Imgur, among others. this is a good thing – it will help researchers examine and understand social behavior across platforms in interesting ways. I'll be following along with interest. and there's [a good group of people \[http://derp.institute/#fellows\]](http://derp.institute/#fellows) involved – I know some of these people and their work, and I look forward to the excellent stuff that will come from this.

when the partnership was announced, I expressed some reservations about the acronym (ambiguously on twitter (which went off in a slightly contentious direction), more in-depth in a DM exchange with a twitter friend involved with the project, and further in-depth vocally over a pint), not because I don't think it's clever, but because I worry that it adds to a culture that continues to frame an internet we'd like to believe is democratic as a string of inside jokes.

the word "derp" has [meaning and history \[https://edtechbooks.org/-aZq\]](https://edtechbooks.org/-aZq) and can mean different things for different people. and this is all good. but, it's an inside joke, and one that those who get will giggle at, and those who don't might have condescendingly explained to. as a twitter friend pointed out, it could also be considered ableist – something I hadn't even thought of. also, the partnership is an academic endeavor, which is my specialty. and though I love many of them dearly, academics are some of the cliquiest people I know.

there's also been a recent proliferation of [TinyLetter \[http://tinyletter.com/\]](http://tinyletter.com/) newsletters. to be fair, I subscribe to a couple. I used to subscribe to more but I found myself not reading most of them because of the volume of email I deal with, and there are some I won't subscribe to because I already get enough of their particular brand of cleverness on twitter. in some ways, these newsletters seem like a nostalgic adoption of an older form of community communication like listservs or usenet; in other ways, they seem like a

way to create a more captive audience now that the popular platforms seem to be on the verge of being drowned out by the noise of mass adoption; and in yet other ways, they seem to be a way to create new forms of community, both inclusive and thus possibly eventually exclusive – almost secretive communities, shying away from the discoverable spotlight of open social media and search engine results. in a time when there is much discussion of issues surrounding paywalls and net neutrality they feel, somewhat ironically, like a new form of walled, hidden information sharing.

I won't pretend that I'm not privy to some internet in-jokes, and I'm on the periphery of enough cliques to understand some of them or at least recognize when I'm not in on the joke. and I've certainly engaged in behavior that puts me on the inside and has made other people aware of how they aren't part of whatever little internet circlejoke that I'm a part of. but both these examples have made me more aware of how important inclusivity and exclusivity are in communities, and my role in participating in and contributing to one or the other or both. communities are important – they provide safe spaces for people, emotional and intellectual nurturing, a way for us not to feel like we are alone. but we seem to be creating "clique economies" – exclusive clubs for the special few, the practice of which I will call cliqueonomics.

we're forgetting how we're here trying to create a more democratic space. we're forgetting that we're trying to make a place that is safe and accessible to all. we're forgetting how it felt to be on the outside looking in. those of us involved in creating communities need to remember to talk about who we might inadvertently leave out, else one day, we'll find ourselves left out.

# Notes

- *as I was writing this, I found [Klint Finley's piece](https://edtechbooks.org/-Rjw) on TinyNewsletter that might be*

*of interest.*

- *I wrote [a short paper about online performance and academic identity [https://edtechbooks.org/-zrj]](https://edtechbooks.org/-zrj) that might also be of interest.*
- *thank you to [Tim Maughan [http://www.timmaughanbooks.com]](http://www.timmaughanbooks.com) for input, editing, and help in coming up with the term "cliqueconomics".*

## Suggested Citation

# Colonisers and Edupunks (&C.)

## Two Cultures in OER?

Rob Farrow

### Editor's Note

This was originally posted to [Rob Farrow's blog [https://edtechbooks.org/-GWC]](https://edtechbooks.org/-GWC) on November 28, 2015.

I've started writing this post at the [Open Education 2015 [http://openeducation2015.org/]](http://openeducation2015.org/) conference at the Fairmont Hotel in Vancouver because I want to try and capture some thoughts about the evolution of this movement and community. But I'm finishing it from home after a little bit of time to digest and also after attending [OpenUpTRU [https://edtechbooks.org/-ygI]](https://edtechbooks.org/-ygI) in Kamloops earlier in the week.

This has been my fifth consecutive Open Education conference and I've been privileged enough to hear from a lot of different people from around the world about their use of OER and the impact it has for them. Over these years there has been a steady move towards raising the game with research into impact and strategising ways to mainstream the adoption of OER; perhaps the clearest example of this is the may presentations that have been devoted to open textbook adoption and efficacy studies at this conference. This is entirely understandable given the co-ordinated focus in the USA on open textbook adoption as a tangible and measurable goal for advocacy and research.

Great things have been achieved by researchers working with the Open Education Group [http://openedgroup.org/] in this regard. In terms of controlled studies which attempt to isolate the effects of moving to an open textbook while controlling for other variables (like instructors, etc.) there really isn't any other game in town that comes close. And there is a real need for this kind of work [https://edtechbooks.org/-tXn], since it is creating the body of evidence that can be used to reject the claim that open resources are of inferior quality. The endgame here is to support widespread adoption of open textbooks in colleges. This is something that can be measured and the savings calculated, so it's a great strategic choice for advocates in the USA.

Now we have established that this research is great, I feel there are a couple of points to raise. Firstly, a methodological issue related to the tension between two virtues of open textbooks that we like to put forward: that they are 'efficacious' (they 'cause' learning) [1] as established by controlled studies; and that they can be freely adapted. How much adaptation can a text withstand before the efficacy studies – which are based on carefully controlling variables – must be repeated? Of course, in many cases the textbooks are just adopted wholesale. They are mapped onto common curricula and so can be used to teach a whole programme. But if someone decides not to tamper with the textbook, isn't the net result of all this just that the commercial textbook has been replaced by an open textbook? But if they do 'tamper' with the textbook, might they be in danger of making their textbooks less 'efficacious'?

Maybe that depends on how good they are at teaching. What I mean by this is that, aside from all the fantastic savings made by students, the course may be taught in exactly the same way as before. In effect, the open textbook strategy might (when fully realised) leave us with more or less the same educational systems as before (although a lot more affordable for many, and this would undoubtedly be a fine thing).

In effect, this is an attempt to 'colonise' an existing system by taking it over from within.  Maybe something more radical follows from this – open textbooks are a great way to introduce students and faculty to OER, and who knows what might happen a few years down the line in a situation where everyone knows about open?

For now, though, nothing much need change except using an open textbook. Except it's not just an open textbook, because to scale up and keep making the case for efficacy the data gathered must grow, which means more metrics, open learning analytics, and possible homogenization of the learning process.

This was how I captured the thought at the time:
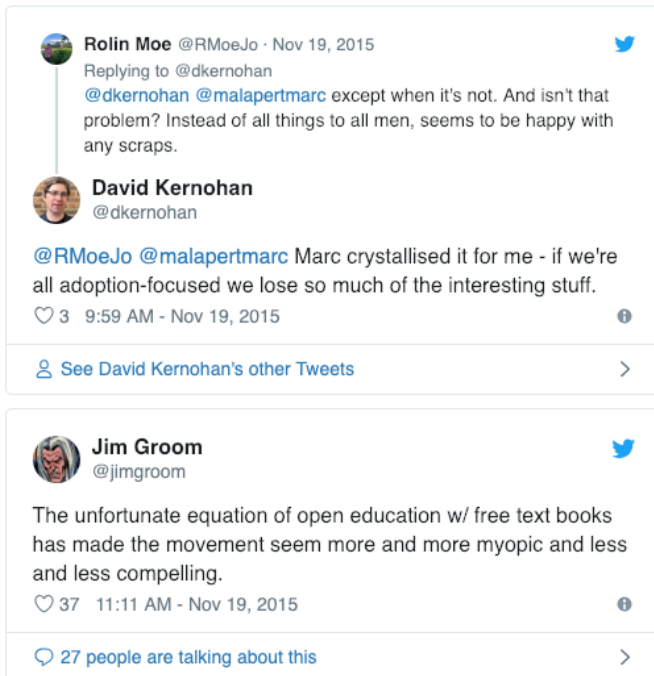


What was less obvious at the conference this year were the voices coming from a different part of the OER movement: the people who emphasize the radical potential of OER.

This end of the spectrum may be hard to clearly define.  They might be edupunks [https://edtechbooks.org/-kIr] or critical pedagogues [https://edtechbooks.org/-jpN].  They might identify with the open source [https://opensource.org/], copyleft [https://edtechbooks.org/-smJ], open data

[https://edtechbooks.org/-qst] or open government [https://edtechbooks.org/-riW] movements outside of education. They might just be libertarians who like the idea of greater personal freedom. But the thing that unites them is that OER is, for them, more about challenging existing practices and forms of knowledge transmission than replicating commercial provisions on open licences.

Because they're a disparate bunch it's hard to put a label on this group, even though by the title of this piece I'm referring to them as 'edupunks (&c.)'. The important thing is that they are more radical in ambition, and in that sense they occupy the opposite end of the spectrum from the 'colonisers'.

Here are some illustrative comments shared on Twitter at the time.

Just going to say it, in a spirit of love and optimism: "open textbook" is an oxymoron. [#OpenEd15 \[https://edtechbooks.org/-GWY\]](https://edtechbooks.org/-GWY)

— Robin DeRosa (@actualham) [November 20, 2015 \[https://edtechbooks.org/-wdY\]](https://edtechbooks.org/-wdY)

There were plenty of others to choose from, as well as plenty of support for what is being achieved with open textbooks. Robin actually went a step further and [wrote a blog post \[https://edtechbooks.org/-HFz\]](https://edtechbooks.org/-HFz) which expressed her frustration with the dominance of open textbooks and outlined the kinds of things that she wants from a conference like Open Education.

1.  Engage learners in contributing to their learning materials so that knowledge becomes a community endeavor rather than a commodity that needs to be made accessible. To that end, let's stop fetishizing the textbook, which is at best a low-bar pedagogical tool for transmitting information. OER is better than that.
2.  Make open licenses the focus of our advocacy for learners, teachers, scholars, which means explaining how the open license enables us to do more with the ideas that we ourselves as learners, teachers, scholars are generating. It's not the open textbook, it's the open license that matters here.
3.  Consider public funding models for open education (OER, open pedagogy, open access). "Philanthropy" is the wrong word for a model in which the public pays itself for what it needs and can generate on its own. And I am not buying that private, for-profit companies– while capable of

being good community partners– are the only way we can build a public infrastructure for publishing and organizing and economically supporting open work.

4. Build a better mission statement for why we work in the open. I took a stab here, but it was just one tiny specific start. I need help explaining this why. We need the why before we can develop the what (who cares about our open tools and apps and platforms? that's the easy stuff, so let's do it second). We need the why before we can assess whether or not we achieved success. Will working in the open serve a social justice vision? improve retention and enrollment? increase interdisciplinary collaboration and improve the quality of our scholarship? Yes? Why? How? And what will it look like if our vision succeeds?

So, should the open education movement seek to colonise education, or transform it? In can be tempting to think that the difference here is really between evolution and revolution. The colonisers want to evolve formal education in a helpful way while the 'edupunks (&c.)' are more interested in empowerment and the freedoms provided by open licensing.

We might also surmise that this is a false dichotomy. Most people are somewhere in the middle, and relatively few people go around calling themselves 'edupunks'. In some ways this can be seen as the return of the familiar *gratis* ('colonisers') vs *libre* ('edupunk (&c.)') distinction that has been with the OER movement since the very early days: is the OER movement about freedom, or about things being 'free'?

C. P. Snow famously wrote about the divergence of science and the humanities in the influential [*The Two Cultures and the Scientific*](#)

_Revolution [https://edtechbooks.org/-HbQ]._  Snow foresaw that the aspirations, language and standards of validity of academic cultures were moving apart in ways that prevented cross-pollination of ideas and findings.  Thus, we have science professors who have never read Shakespeare, literature professors who cannot explain the laws of thermodynamics, and so on.  Now arguably there are more interdisciplinary thinkers than there used to be but education does still tend to siphon learners off into one or the other camp.

Without getting too far into that debate, I think we can use the basic idea of 'Two Cultures' as a way of thinking about changes in the OER movement, and being aware of people pulling in different directions.  Everyone is still part of the same conversation at the moment, but it doesn't feel like it would take much to see new, more niche conferences and journals springing up.  In my view, both of these cultures need each other, because each ameliorates the vulnerabilities of the other and encourages attentiveness to the bigger picture.  So keep talking!

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[1] I'm a little uncomfortable personally with the language of efficacy, which risks being [scientistic [https://edtechbooks.org/-IQG]](https://edtechbooks.org/-IQG) – I'm not sure that isolating a lot of variables and then attributing any difference to the intervention is reliable in education research per se – though it is certainly commonplace and there is of course a need for evidence.

## Suggested Citation

_Farrow, R. (2019). Colonisers and Edupunks (&C.): Two Cultures in OER? In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/two_cultures_

# Digital Trespass and Critical Literacy #OER17

## Frances Bell

### Editor's Note

This was originally posted to [Frances Bell's blog \[https://edtechbooks.org/-yXQo\]](https://edtechbooks.org/-yXQo) on December 16, 2016.

[Peter Riley, "The Ascent of the Kinder Scout" on SoundCloud \[https://edtechbooks.org/-yEP\]](https://edtechbooks.org/-yEP)

Peter Riley explains the Kinder Scout Trespass that took place in 1932 as a protest against the permanent closure of all the wild uplands of Derbyshire for about 12 days of grouse shooting in the year. It has been described as "the most successful direct action in British history" [Lord Roy Hattersley, 2007 \[http://www.kindertrespass.com/\]](http://www.kindertrespass.com/).
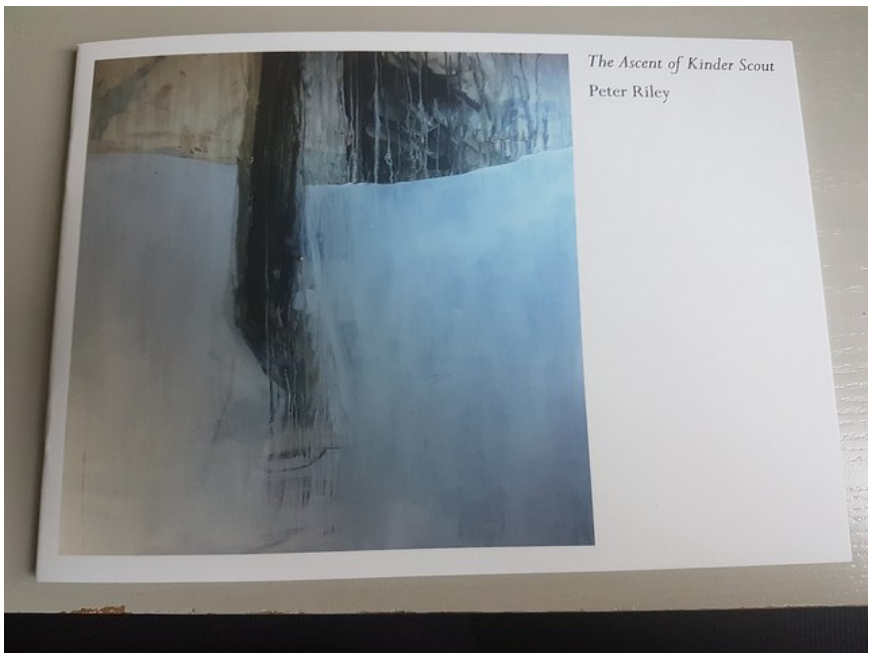
Cover of The Ascent of Kinder Scout

The other day I read a [review by Billy Mills [https://edtechbooks.org/-JGa]](https://edtechbooks.org/-JGa) of the narrative poem The Ascent of Kinder Scout by Peter Riley. What Billy said made me think about the relevance of the Kinder Scout Trespass for us today and how the poem can help us understand more about the purpose and experience of education then and now. The pamphlet arrived in the post today to my joy.

### Extract from Billy Mills' review

These radicals, both working class activists and middle-class poets, had lived through one World War and its aftermath and were about to see a second. As the first generation to benefit from the 1918 Education Act, they had the tools needed to engage in a process of learning about power and its implications.

As Riley writes early in this work, 'The foundation of the state is not violence but education.' This statement, apparently straightforward on first reading, gains in complexity as Riley questions the role and value of the state a few paragraphs later, concluding that it 'makes everything possible, and makes strangers of us all.'

He also calls into question the value of education, specifically literacy:

> They taught us to read and we thought we
> were so grand as to join heaven and earth. But
> all we did was wallpaper over the crack
> between myth and science and lose our homes.
> The farmer's wife sang a truer song, told a
> sweeter story, of hope and despair hand in
> hand walking back into society.

This last word forming an integrative counterbalance to the divisive state. It is no coincidence that the verse excursus, which echoes the song Goodnight Irene, follows on immediately after the prose paragraph from which I have just quoted. This interlude sits in the twin shadows of war and emigration, of 'promise betrayed' and 'all the bathos of the modern state'.

I know that comparisons with the 1930s are a little overblown at present but I found that the poem and review are very thought-provoking in my ongoing consideration of critical and digital literacy in public and open education.  I submitted an abstract recently for #OER17, [https://oer17.oerconf.org/]a conference with the theme Politics of Open. My abstract looks at the role of criticality in Open Educational Practice, and how paying attention to the sociomaterial, as Fenwick(2014) encourages students and educators, can focus on the political as well as the instrumental nature of education, and

critique the digital tools and platforms through which it is increasingly mediated.

So here is my proposal:

> What if the critical and digital literacies that educators and students practice and share could help focus attention on the wider implications of using proprietary social networking systems and other platforms in learning, and activism and education?

> What if these literacies helped bring about a digital trespass that was more like the Kinder Scout Trespass than a concern of cyber-security?

I'll leave you with the words of the late Ewan McColl in one of my Favourite songs The Manchester Rambler.

> *I'm a rambler, I'm a rambler from Manchester way*
> *I get all me pleasure the hard moorland way*
> *I may be a wageslave on Monday*
> *But I am a free man on Sunday*

Fenwick, T., 2014. Social media, professionalism and higher education: a sociomaterial consideration. Studies in Higher Education, 5079(March 2015), pp.1–14. Available at: http://www.scopus.com/inward/record.url?eid=2-s2.0-84904850004&partnerID=tZOtx3y1\n [https://edtechbooks.org/-Qge] .

Note: I should have said that there is no guarantee that the abstract will be accepted. :) I have plans to write a longer piece, maybe with a.n.other so this is definitely an ongoing writing project.

Note 2: Just heard that abstract has been accepted – Yay! So I can prepare my presentation to include added Kinder Scout goodness – abstract here [https://edtechbooks.org/-DAs]– hope to see some of you

there to hear your ideas.

## Suggested Citation

*Bell, F. (2019). Digital Trespass and Critical Literacy #OER17. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/digital_trespass*

# 4

# Equity & Power



From the earliest days of technology in education, devices and technical advances have been seen as tools for shaping a utopian future wherein everyone can more fully realize the promises of education.

The actual history of the field, however, is replete with examples of how technologies perpetuate inequities (or create new ones) and establish power structures that can allow for oppression, censorship, and the advancement of interests other than those of the learner (e.g., corporations in a market economy).

One illustrative example of this in recent history is the rise of the electronic textbook. Touted as the solution to ballooning textbook cost burdens on students, publishers have provided the same material in electronic formats for learners to rent at nominal price reductions

(made possible by much lower material costs on the publisher's part to provide the resources digitally). However, embedded in this shift are technologies that allow for digital rights management of content, which prevents learners from sharing, reselling, or keeping their textbooks (as they previously could), which actually has led to higher textbook costs (e.g., no purchasing of used textbooks or reselling them when done) and reduced access for learners (e.g., access to the book ends once the course ends). In this example, the technology permits for-profit publishers to exert heretofore unseen power over learners through their products, enforcing new restrictions and creating new access barriers.

Other examples of such power shifts and their effects on equity include the LMS-ification of higher education, the commoditization of online learning, the use of inaccessible media for learners with disabilities, the use of algorithms and learning analytics to track students or predict performance, and so forth.

In this section, authors grapple with both implicit and explicit power structures that are introduced or perpetuated by emerging technologies and the effects that such technology-enabled power grabs have on promises of equitable learning experiences for all.

# The Golden Age of Education that Never Was

## Rolin Moe

### Editor's Note

This was originally posted to [Rolin Moe's blog
[https://edtechbooks.org/-Bjm]](https://edtechbooks.org/-Bjm) on June 1, 2015.



The history of edutainment, a mid-20th Century portmanteau used to
describe the mix of broadcast contents with an educational context, is
a fascinating field, and Audrey Watters' [Story of The Learning
Channel [https://edtechbooks.org/-Jyj]](https://edtechbooks.org/-Jyj) is an important addition to a
critical reader on the relationship of broadcast media, ownership
rights and the education superstructure.  Noting how the current

state of ~~The Learning Channel~~ TLC evokes responses of, "[Remember when it was called The Learning Channel [https://edtechbooks.org/-xsk]](https://edtechbooks.org/-xsk)," Audrey presents the history of the infrastructure which created what was a public-public partnership between government agencies to provide satellite-based educational television (conceptualized in the 1960s, partnered with more public agencies and enacted in the early 1970s), and how *public-public* became *public-private* became *private* became *a host of barrel-scraping reality TV fare*.  It is an excellent read.

The article ends with questions to consider when engaging broadcast television, education, edutainment and the other terms and subfields that inhabit this realm:

- Who owns the "pipes"? Who owns the means by which content is transmitted? Who owns the satellites? Who owns the spectrum? Who owns the cables? Who owns the network?
- What do we mean by "educational content"? In particular, how has our definition of "documentary" changed over the last few decades? How does this shape what media – in form and in content – enters the classroom?
- How have regional educational agencies and distance education providers – particularly those offering for-credit classes – been affected by the commercialization of content and delivery?
- How has education become increasingly commercialized? *How might education on the Internet and via various computer technologies be following down that very path taken by education on cable TV?*

This topic intersects with my emerging research; I am thankful to

Audrey for this discussion and the energy behind it. I would like to join the conversation as part of an emergent discussion.

In 2014, [Coursera announced a partnership with Curiosity.com [https://edtechbooks.org/-Nct]](https://edtechbooks.org/-Nct), a start-up launched from within Discovery Communications, whom Coursera heralded as the parent company of Discovery and Animal Planet. (Note: [in November Curiosity.com spun off and away [https://edtechbooks.org/-Msn]](https://edtechbooks.org/-Msn) from the Discovery Communications paternity) At the time, [I blogged about the partnership [https://edtechbooks.org/-eeW]](https://edtechbooks.org/-eeW), briefly touching on the histories of Discovery and The Learning Channel, as well as the media conglomerate that would form from their 1990s merger/acquisition and growth. I framed this in the context of edutainment, which took me down a whirlwind of Disney history, resulting in [scholarship on the relationship between [https://edtechbooks.org/-IsK]](https://edtechbooks.org/-IsK) the learning objects/resources of the OER movement, edutainment, and the ['free-as-in-beer' resources [https://edtechbooks.org/-vzh]](https://edtechbooks.org/-vzh) one finds in Coursera/edX/curiosity.com. The expansion of this research continues; at the present I am [adopting a postmodern lens [https://edtechbooks.org/-JYD]](https://edtechbooks.org/-JYD) to look at the history of broadcast contents within education, in their utilitarian existence as well as their social/political/cultural/philosophical/power contexts too.

Why postmodernism? There are a number of reasons, but in the context of this debate I have more and more seen a complex historical relationship between public and private interests in education, and power struggles that may seem new are in fact deep-rooted, perhaps to the point that they are foundational to the infrastructure of compulsory education. For example, Walt Disney is credited with the term *edutainment* [as far back as 1946 [https://edtechbooks.org/-fva]](https://edtechbooks.org/-fva). Often this is related [to the development of the True Life series of nature videos [https://edtechbooks.org/-cdN]](https://edtechbooks.org/-cdN), which played as bumpers in cinema houses prior to featured shows. However, Disney was in the classroom in 1946.

Watch the video [https://edtechbooks.org/-Wuj]

The story of [https://edtechbooks.org/-gvo] *The Story of Menstruation [https://edtechbooks.org/-gvo]* is fascinating; at its briefest, it is a 1946 partnership between Disney and Kotex, one which 1.5 million students likely watched.  From one perspective [https://edtechbooks.org/-vWE], it was an attempt to bring modern and accurate science into sexual education courses, for the benefit of schoolchildren.  From another, it was an opportunity to use an existing film mechanism (Disney's WWII propaganda section) [https://edtechbooks.org/-maa] to roll out contents for school children.  And from a third, it was an early introduction of commercial partnerships in the world of education (Kotex, a co-sponsor of the film, was the #2 feminine hygiene product at the time to Proctor & Gamble's Tampax).  There are also existing critiques along lines of gender, class and power [https://edtechbooks.org/-VXy], and we are potentially building a pedagogical critique here.

If we agree with John Modell and Madeline Goodman, two sociologists of adolescence who argue in 'Historical Perspectives [https://edtechbooks.org/-wLB]' (At the Threshold:  The Developing Adolescent; 1990) that high school as compulsory becomes part of the American ethos in the early 1930s (in part due to the Great Depression and the lack of work options for children of lower classes), there is scant time between the establishment of high school as a space of equity and the private sector's involvement in contents and curriculum.  This throws into question ideas of a Golden Age of education with heavy public backing [https://edtechbooks.org/-vzh]; while the increases made via the GI Bill, the Higher Education Act, and the Civil Rights Act all are designed to be legislations to promote equity, the equity is not in a sacrosanct public good as much in a negotiated space of public good and private enterprise (and, when 1958 rolls around, a space of crisis and in need of more management [https://edtechbooks.org/-bmR]).

This harkens back to a longstanding debate in distance (and ergo online) education.  Is the development draped in equity; after all, distance ed enabled a greater number of citizens to engage educational attainment than previously in history?  Or is it draped in pragmatism, indicative of an industrial age allowing low cost of production and a penny post to pass materials back and forth?  This is problematic because we cannot easily abstract one from the other — the equity argument is in lockstep with the pragmatic argument, meaning equity for upward mobility is wedded somewhat to career growth and industrialization.

I look at early documentaries — not just titles like the seminal documentary Nanook of the North ([questioned as to its historical accuracy versus a creation of reality [https://edtechbooks.org/-dDe]](https://edtechbooks.org/-dDe)), but even to the very earliest film work from Thomas Edison and [Sandow the Strongman [https://edtechbooks.org/-afg]](https://edtechbooks.org/-afg) — and I wonder how much of documentary has ever been, well, document as objective.  Documentary is a contradiction in terms, because every filmmaker has the power of camera and the power of edit.  Even Frederick Wiseman, arguably the most important cinema verite documentarian (whose two films on schooling, [High School [https://edtechbooks.org/-dSD]](https://edtechbooks.org/-dSD) and [At Berkeley [https://edtechbooks.org/-KWi]](https://edtechbooks.org/-KWi), are some of the best works of film ever IMO), gets to choose what to film and what to cut even if his style is to not 'interject himself' into the subject matter.  The educational contents of the original Learning Channel, those 1970s course contents, are markedly different from the Histori-docs produced on the Discovery Communications networks (and there's a space to critique the History Channel/University of Oklahoma relationship here too).  But before we bemoan the change, we need to identify what it is we are really looking for.  Documentary film is largely ideology — at its most base that ideology looks like Here Comes Honey Boo-Boo, but I would argue there is a lot more similarity than difference when comparing TLC shows to the documentary work of Davis Guggenheim, Morgan Spurlock or even Michael Moore.  The technicalities of

documentary have certainly changed and allowed for greater production elements to hold attention; I would question the idea that those elements have led to less robust documentaries or if perhaps it just illuminates a deficiency of the form.

How does this relate to the world of broadcast educational contents? I think about the history of Encyclopedia Britannica with educational filmstrips in the 1940s and 1950s [https://edtechbooks.org/-qvL], and the lack of favor such artifacts held in the 1970s and 1980s (to the point many of the originals were thrown in dumpsters rather than preserved or archived), the renaissance of television in the classroom in the 1990s with Channel One and Cable in the Classroom, the politics behind their commercialization or their ties to industry [https://edtechbooks.org/-DUo], their eventual recession from classrooms, Khan Academy or MOOC du jour today — and when I hold all of this in my head, I am left with the feeling not only that we are reinventing a flat tire in education, but that the *education ideal* as public good and upward mobility is faulty too, that education may in some cases have been able to lift people up but this was never the design and never the intention of this superstructure.

This is a loaded statement which deserves unpacking, much can be found throughout blogs here and elsewhere, and will continue. The question I propose: as we critique education and question the models/instruments/statements/proclamations made today, should we also question some of the most core assumptions we have made about the function and purpose of education?

## Suggested Citation

*Moe, R. (2019). The Golden Age of Education that Never Was. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/golden_age*

# Blackboard Patents the LMS

## Michael Feldstein

### Editor's Note

This was originally posted to Michael Feldstein's blog [https://edtechbooks.org/-Lo] on July 27, 2006.

I'm surprised there hasn't been more uproar about this yet. The ever-brilliant US Patent and Trademark Office has apparently granted Blackboard a patent [https://edtechbooks.org/-YCS] for...well...pretty much anything remotely related to learning management systems. As I read it, Blackboard basically owns the patent on any sort of groupware at all that is used for teaching purposes. This could have very serious consequences for both proprietary and Open Source competitors--and I define "competitors" as loosely as possible. (You could probably slam Drupal with this under the right circumstances, for example.)

For your convenience, I have copied the "Summary of the Invention" section from the patent [https://edtechbooks.org/-ZAi]:

> In accordance with these and other objects, provided is a system for providing to a community of users access to a plurality of online courses, comprising a plurality of user computers and a server computer in communication with each of the user computers over a network. Each user computer is associated with a user of the system having

predefined characteristics indicative of a predetermined role in the system. Each role provides a level of access to data files associated with a course, and a level of control over data files associated with a course. The server computer has means for storing data files associated with a course, means for assigning a level of access to each file, wherein the level of access is associated with the ability of a user to access the file, means for determining an access level of a user requesting access to a file, and means for allowing access to a file associated with a course as a function of the access level of the user.

The user roles comprise a student role associated with a student user, an instructor role associated with an instructor user, and an administrator role associated with an administrator user (roles may be mixed; for example when an instructor of one course, is also a student in another course). The instructor user is provided with an access level to enable the creation and editing of a plurality of course files associated with a course. The course files include an announcement file, a course information file, a staff information file, a course documents file, an assignments file, a dropbox file, an asynchronous communication file, and a synchronous communication file.

The student user is provided with an access level to enable reading of course files associated with a course. The student user is also provided with an access level to enable modification of some of the files associated with a course. Also, the user may be provided with an access level to enable creation of a student file associated with a file for which the student user is able to read. The file that the student is able to read may be an assessment file created by the instructor user, and the student file created by the student user is a response to the assessment file. The assessment file may be a plurality of examination questions selected by the instructor user to assess the ability of the

student user. The examination questions may be selected by the instructor user from a predetermined pool of available examination questions. The examination questions also may be created by the instructor user substantially at the time of the creation of the assessment file and optionally added to the pool. The student file may be reviewed by the instructor user and assigned a grade, which would be made available online to the student user. The instructor user may collate the grades obtained from reviewing a number of student files, and the collated grades may be made available online to all student users associated with the course (e.g.: an average for the class, a pie or bar chart, etc.).

The student will also be able to read an assignment file created by the instructor user, and the student file created by the student user is a response to the assignment file.

The "digital dropbox" may contain a plurality of files transferred to the server computer from one or more student users associated with the course. The instructor user may be provided with access to the files in the dropbox file, whereby the instructor user may download, edit and upload the files in the dropbox.

A user may be required to enter a login sequence into a user computer in order to be provided with access to course files associated with that user. The user is then provided with access to all courses with which the user is associated after entry of the logon sequence. The user is provided with a web page comprising a plurality of course hyperlinks, each of the course hyperlinks associated with each course that the user has been enrolled either as an instructor or as a student. Selection of a course hyperlink will provide the user with a web page associated with the selected course; the web page having content hyperlinks and buttons to various content areas associated with the course. The content hyperlinks and/or buttons include an announcement area hyperlink, a course information hyperlink, a staff information hyperlink, a course documents hyperlink, an assignments

hyperlink, a communications hyperlink, and a student tools hyperlink. Selection of the announcement area hyperlink provides a web page including a group of course announcements. Selection of the course information hyperlink provides a web page including information regarding the associated course. Selection of the staff information hyperlink provides a web page including data regarding the instructors of the associated course. Selection of the course documents hyperlink provides a web page including a listing of documents associated with the course, which may be active hyperlinks to the documents. Selection of the assignments hyperlink provides a web page including a group of course assignments. Selection of the communications hyperlink provides a web page including hyperlinks to a group of communication tools including an asynchronous communication tool and a synchronous communication tool.

In another aspect if the invention, provided is a system for providing to a community of users access to online courses, including a server computer in communication with user computers over a network, wherein the server computer has means for creating course user accounts from a file of existing user accounts associated with an external computer. In this manner, existing legacy systems having large members of user accounts stored in memory may be integrated with this system without having to re-enter user data into the system (so-called batch enrollment).

In yet another aspect of the invention, provided is a method for providing online education, which includes the steps of establishing a course to be offered online, offering the course to be taken online to a group of student users; and providing access over the network to the course files to a student user who has enrolled in the course. The establishment of the course includes an instructor user generating a set of course files for use with teaching the course, then transferring the course files to a server computer for storage thereat, and then making access to the course files available to a predefined community

of student users having access to the server computer over a network.

Preferably, at least one of the course files comprises a course assignment, and the student user creates a student file in response to the course assignment and transfers the student file to the server computer. The instructor user accesses the student file from the server computer, reviews the student file to determine compliance with the course assignment, and the instructor user assigns a grade to the student file as a function of the determination of compliance with the course assignment. The instructor user may post the grade to a file on the server computer accessible only to the student user with which the grade is associated. The instructor user may repeat these steps for a number of student users that are enrolled in the course, and then perform a statistical analysis on the grades assigned to the student users. The results of the statistical analysis may be made available to the student users enrolled in the course.

An asynchronous communication tool accessible to student users enrolled in the course may be provided for enabling asynchronous communication amongst the student users. Likewise, a synchronous communication tool accessible to student users enrolled in the course may be provided for enabling synchronous communication amongst the student users.

The present invention also enhances the prior art by providing a flexible infrastructure for colleges, universities, and other institutions wishing to facilitate on-line registration and tuition payment. More specifically, the present invention can accommodate different billing methods, including, but not limited to, billing on a per-credit-hour basis, and billing on a per-registrant basis. Tuition may be paid by credit card, debit card, check, or other verifiable payment method. Payment verification may be performed by the present invention, or the present invention may interface with third-parties providing payment verification services. In addition, the present invention allows on-line billing information to easily interface with a college,

university, or other institution's standard billing practices. Integrating with existing billing practices simplifies transition to automated systems.

In addition, the present invention may be configured as an open system wherein anyone can connect to a server over the Internet and create a course online that may be taken by anyone else connected over the Internet. Thus, anyone may create a virtual classroom available to anyone else, regardless if they are affiliated with a particular institution such as a University. For example, a lawyer may create a course in patent law online, and configure the system to require entry of a password to enroll. The lawyer may then disseminate the passwords to desired students who can enroll in the course. Alternately, the lawyer can request the system to require payment to enroll in the course such as by credit card.

## Suggested Citation

*Feldstein, M. (2019). Blackboard Patents the LMS. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/blackboard_patent*

# The Glass Bees

## Jim Groom

### Editor's Note

This was originally posted to [Jim Groom's blog](https://edtechbooks.org/-wdf) [https://edtechbooks.org/-wdf] on May 25, 2008.
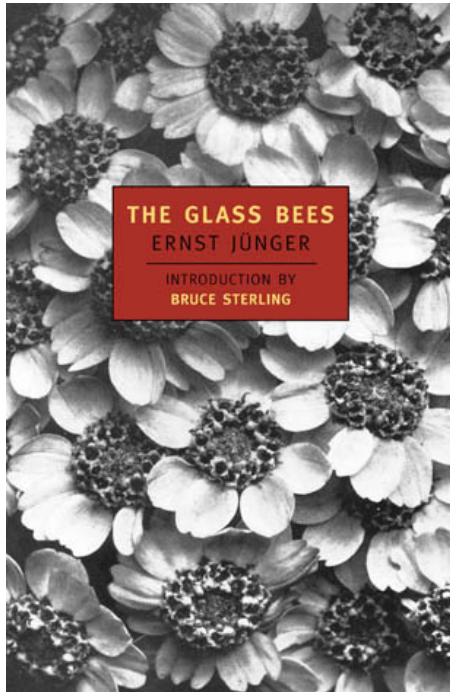
With my no-internet, hippie-like vacation to Montauk [https://edtechbooks.org/-JktD] behind me now, I can return to the bava and continue the excruciating futility that is my life online. I enjoyed the time away because I was able to do something I hadn't done in too long, i.e., read a few books that have nothing to do with a course I was either taking or teaching. One of the books I read that has me both excited and scared is Ernst Jünger [https://edtechbooks.org/-eJd]'s 1957 novel *The Glass Bees [https://edtechbooks.org/-bSC]* (*Gläserne Bienen*).

I got this novel back in 2000 when it was re-published by the New York Review of Books [https://edtechbooks.org/-tuy], and it sat on my shelf for almost eight years. And I am now convinced it had to sit there for that long. For this book wouldn't have meant half as much to me had I read it before my full-fledged, self-obsessed foray into the land of the lost, a.k.a the internet, almost four years ago. I happened upon this novel last week when I was searching for something to read on my shelves. I was immediately drawn in by the fact that Bruce Sterling [https://edtechbooks.org/-Xhw] wrote the introduction, whose talk on "The Internet of Things" [https://edtechbooks.org/-Ajf] I had recently listened to. I took this as a sign that the lattice of coincidence was in full effect, and I decided to give it a go.

Sterling's introduction immediately grabbed me, his description of Jünger's novel as anachronistic in the most uncanny of ways is perfectly put when it comes to the social and economic realities of this dark, visionary novel. This quote from Sterling's introduction (which you can read in its brief entirety here [https://edtechbooks.org/-HBs]) made me realize that this isn't just a novel I should read, but one I *need* to read:

> Jünger perceived that industrial capitalism is a ridiculous game, so he proved remarkably good at predicting its future moves….[He] understands that technology is

> pursued not to accelerate progress but to intensify power. He fully understands that popular entertainment comes with a military-industrial underside.

This passage brings into sharp focus a scary reality that often gets overlooked (or is it intentionally downplayed?) in educational technology, namely that the Utopian, blue sky ideas of technology as a singular harbinger of possibility and liberation ignores the cold and all-consuming role that capital plays in the shaping of technology as means of control. Now I understand that this struggle is by no means unilateral, and that for every instance of technology as a means to consolidate power for capital, there is another instance in which that same technology can be used to undermine the fallacious logic of capital's vision of progress.

So the question that this book (as early as the introduction) immediately forced me to consider is where do I stand in this equation. More specifically, how do I understand the work I am doing in the field of EdTech when in comes to the intersection of progress, power, and the voracious appetite of capital to co-opt and re-package the labor of others as its own, patented, insanely expensive, proprietary product?

This line of inquiry came into sharper focus when talking to [Brian Lamb [https://edtechbooks.org/-uxXB]](https://edtechbooks.org/-uxXB) and [Keira McPhee [https://edtechbooks.org/-BIB]](https://edtechbooks.org/-BIB) at [Freddy's Bar in Brooklyn [https://edtechbooks.org/-THk]](https://edtechbooks.org/-THk) soon after finishing the novel. After my vociferous and impressionistic explanation of the ways in which the novel was not about technology, but the relations of power and capital through an idea of technology as a figure of progress, Brian suggested how this wasn't unlike BlackBoard's newest product announcement, their "Next Generation" of Learning Management Systems, BlackBoard 8.

What is BlackBoard doing? Well, they are taking the experiments and

innovations of thousands of people and re-packaging them as their own, unique contribution to the educational world of Web 2.0. And why are they doing this? Well, to survive as a LMS, but that survival is not necessarily dependent on a technology or an innovation, rather it is a means of taking the imaginative experimentation of others and wrapping them up as a product that can be bought and sold like a pair of shoes. The insanely irresponsible advertising for BlackBoard 8 suggests that Academic Suite release 8.0 [https://edtechbooks.org/-tFd] will "enhance critical thinking skills" and "improve classroom performance." What LMS can do this? What Web 2.0 tool can do this? This is total bullshit, how can they make such an irresponsible claim? These things are not done by technology, but rather people thinking and working together. Our technology may afford a unique possibility in this endeavor by bringing disparate individuals together in an otherwise untenable community, yet it doesn't enhance critical thinking or improve classroom performance, we do that, together.

And this move by BlackBoard to commodify the labor of others is exactly the problem with the idea that educational technology "is about the technology," ~~which~~ ~~Gardner [https://edtechbooks.org/-oN]~~ ~~exclaimed in his swan song presentation at UMW's Faculty Academy..~~ ~~It was a great talk, but an insistence that what we do is about the~~ ~~technology and not the community around the ideas is a dangerous~~ ~~one. The two go hand-in-hand, and I am sure Gardner realizes this,~~ ~~but~~; (in fact, this was a poor reading on my part, a full apologies toGardner for my being so caught up on a phrase and not an idea —an ongoing problem I have :) ) in my mind the technology is often the means through which the communal acts are traced, recorded, and archived. The learning happens not as a by-product of the technology, it is, or rather should be, the **_Raison d'être_** of the technology. The teaching and thinking happen within the medium of texts, videos, film, images, art, conversation, game playing, computers, etc. Technology may provide new ways of delivering and accessing this information, and mark the basis of many a medium, but the idea of a community

and its culture is what makes any technology meaningful and relevant.

This is why the idea that "it is about the technology" makes BlackBoard 8 so troubling to me. If it is about the technology, then capital can quickly recognize this fact and co-opt all the hard work by so many to move outside of the taylorized vision of educational technology grafted upon our institutions. If the technology is what is important, than what do we say if a faculty member or student notes that Bb can do what del.icio.us can, or [can "mash up" YouTube, Flickr, and Google Earth maps \[http://sclater.com/blog/?p=95\]](http://sclater.com/blog/?p=95) like WPMu, or can make content at long last open, or has a slick AJAX interface, then we what what can we say about the technology?

BlackBoard will leverage their relative omnipresence to gouge schools everywhere into using their tools because they can, and they'll sell them up with all the administrative, vending machine, and surveillance cameras one could dream of. This is what we are missing. BlackBoard makes an inferior product and charges a ton for it, but if we reduce the conversation to technology, and not really think hard about technology as an instantiation of capital's will to power, than anything resembling an EdTech movement towards a vision of liberation and relevance is lost. For within those ideas is not a technology, but a group of people, who argue, disagree, and bicker, but also believe that education is fundamentally about the exchange of ideas and possibilities of thinking the world anew again and again, it is not about a corporate mandate to compete—however inanely or nefariously—for market share and/or power. I don't believe in technology, I believe in people. And that's why I don't think our struggle is over the future of technology, it is over the struggle for the future of our culture that is assailed from all corners by the vultures of capital. Corporations are selling us back our ideas, innovations, and visions for an exorbitant price. I want them all back, and I want them now!

Enter stage left: EDUPUNK!

My next series of posts will be about what I think EDUPUNK is and the necessity for a communal vision of EdTech to fight capital's will to power at the expense of community. I hope others will join me.

Also, sorry this tangent went so far afield, I am currently working on a Wikipedia article for *The Glass Bees [https://edtechbooks.org/-bSC]*, which hopefully will fill in all the gaps I left here. But in the end, you should really just read it!

## Suggested Citation

*Groom, J. (2019). The Glass Bees. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/glass_bees*

# What Do We Owe Students When We Collect Their Data - A Response

## Autumm Caines

### Editor's Note

This was originally posted to [Autumm Caines's blog](#) on October 26, 2018.
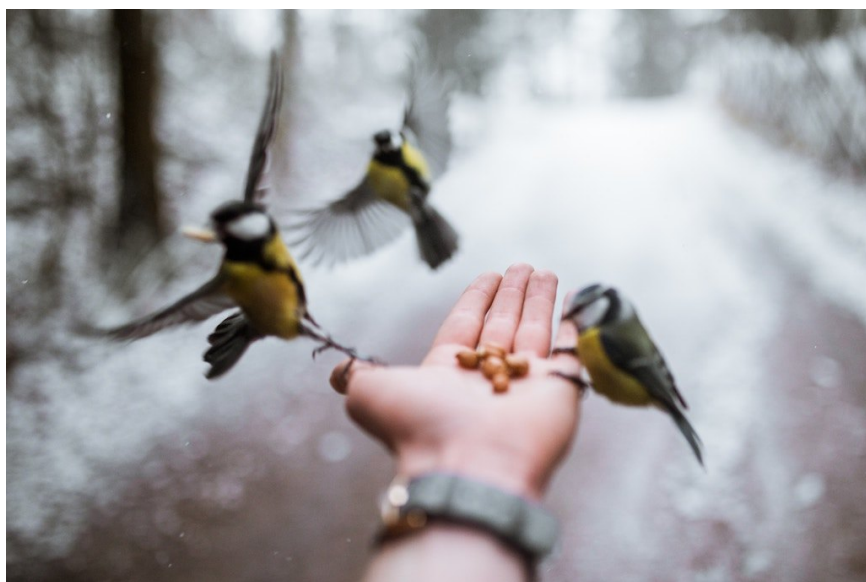
It has been a few weeks since we issued our [#DigCiz call](#) for thoughts on the question "What do we owe students when we collect their data?" and there have been a few responses. The call is in conjunction with the [interactive presentation at the EDUCAUSE Annual Conference](#) that I'll be helping to facilitate with Michael Berman, Sundi Richard, and George Station. The session will be focused around breakout discussions both onground and online during the session. We don't necessarily have "answers" here – the session (and the call) are more about asking the questions and having discussion. The questions are too big for one session and often there are not easy answers; so we released the call early hoping that people would respond before (or after) the session. I've yet to respond to it myself so I'm going to attempt to do that in this post.

# The #DigCiz Call

We want the call to be open to everyone – even those who don't know a ton about student data collection and we want people to respond using the tools and mediums that they like. We have had some great examples already and I wanted to thank those who have responded so far. I threw the call out to some of our students at SNC and I was super honored that [Erica Kalberer responded](#) with an opinion piece. Erica does not study analytics, she is not a data scientist or even a computer science major. She didn't do any research for her post and it is an off the cuff, direct, and raw response from a student perspective – which I love.

Additionally, Nate Angell chose to leave a [hypothesis annotation on the call itself over at digciz.org](#).



Nate points out that there are many "we"s who are collecting student data and that students often have no idea who the players are that would want to collect their data let alone what data is being collected and what could be done with it. What do we mean when we ask "What do WE owe students...." Who is this we? Instructional designers may answer these questions very differently than accreditors would, or as librarians would, or even as students themselves would. I hope that by hearing from different constituencies that we can bring together some common elements of concern.

# Framing Things Up

I am really intrigued by our question but I also have some issues with it.

The question is meant to provoke conversation and so in many ways it is purposefully vague and broad. It is not just "we" that could be picked out for further nuance. So many simple definitions could be picked out of this question. What is meant by "data" and more specifically "student data".

What are we talking about here? Is this survey data? Click data from the LMS or other educational platforms. What about passive and pervasive collection that is more akin to what we are seeing from the advertising industry? The kind of stuff that does not just track clicks but tracks my where the cursor moves, the speed of how my cursor moves, where eyes are on a screen, text that has been typed into a form but has not been submitted. What about if we are using wearables or virtual reality? Does the data include biometric information like heart rate, perspiration, etc. Is this personally identifiable information or aggregate data? Some of these examples seem particularly sensitive to me and it seems like they should all be treated differently depending on context.

We could keep going on.... What is meant by "collect", "students", "owe"... a whole blog post could be written just about any one of these things.

Another of my issues is that the question assumes that student data will be collected in the first place. I'm setting that issue aside for this call and presentation because if I like it or not I am part of field that is collecting student data all of the time. As an instructional designer I make decisions to use technologies that often track data and to be honest if I wanted to avoid those technologies completely I'm not sure that I could. Over the course of my career faculty and administrators

have often come to me asking to use technologies that collect data in ways that I consider predatory. How do I respond? How do I continue to work in this field without asking this question?

People who know me or follow my work know that over the last few years that I have often struggled with considering our responsibilities around student data. Even though I have been thinking about these kind of questions for a few years now I don't think that I will be able to dive into all of the nuance that any of these could bring. (I want to write all the blogs – but time). So, I just have to resolve that – that is why this is a broader call for reflection and conversation and invite others to respond to the call around things that I may have overlooked.

Though I am still new to this conversation, I'm not so new or naive to think that there are not already established frameworks and policies for thinking about the ethical implications of student data collection. I've been aware of the work that JISC has been doing in this area for some time and had just started a deeper dive on some research when I attended the Open Education Conference in Niagara Falls a few weeks ago.

Somehow I missed that there were two important data presentations back to back and though I only caught about ¾'s of the *[Dangerous Data: The Ethics of Learning Analytics in the Age of Big Data](#)* presentation from Christina Colquhoun and Kathy Esmiller from Oklahoma State University, I got the slides for [Billy Minke and Steel Wagstaff's](#) *["Open" Education and Student Learning Data: Reflections on Big Data, Privacy, and Learning Platforms](#)* which I missed completely.

Both of these presentations looked at different policies and ethical frameworks around using student data which was a goldmine for me. Dangerous Data's list did not make any claim about quality of the framework's while the Open Education and Student Learning Data

presentation did specifically state that their list was curated for policies that they were impressed by.

**Open Education and Student Learning Data listed:**

- [The Policy on Ethical use of Student Data for Learning Analytics](#) – Open University
- [CSU Learning Analytics Code of Practice](#) – Charles Stuart University
- [Privacy and Online Monitoring Policy](#) – University of California, Berkeley
- [Data Privacy Practices \[Draft\]](#) – University of California

**Dangerous Data listed:**

- [The Policy on Ethical use of Student Data for Learning Analytics](#) – Open University (same as above but links to broader set of resources)
- [Code of Practice for Learning Analytics](#) – JISC
- [Responsible Use of Student Data in Higher Education](#) – Stanford CAROL and Ithaka S+R
- [Consensus Principles on User's Digital Privacy in Library, Publisher, and Software-Provider Systems](#) – National Information Standards Organization (NISO)

# My Response

I've started reading through the policies and frameworks listed above and while I have not had a chance to dive deep with each one of them, I've found a lot of overlap with what I have identified as four core tenets that I believe start answer the question "What do we owe students when we collect their data?" at least for me – for now. I'm personally identifying with "we"s as in instructional designers, college teachers, IT professionals, librarians (as an official wannabe librarian) and institutions – at least on some level.

I'm still learning myself and I could change my mind but for the purposes of this post I'm leaning on these four tenets. I feel like before we even start I need to say that there are times when considering these tenets, in practice, that the answers to the problems that inevitably arise come back as "well, that is not really practical" or "the people collecting the data themselves often don't know that". In these cases I suggest that we come back to the question "what do we owe students when we collect their data?" and propose that if we can't give students what they are owed in collection that we think twice before collecting it in the first place.

I will list these tenets and then describe them a bit.

- Consent
- Transparency
- Learning
- Value

## Consent

This one seems of the most importance to me and I was shocked to see that not all of the policies/frameworks listed above talk about it. I understand that consent is troubled, often because of transparency – more on that in a bit – but it still strikes me that it needs to be part of the answer.

There is a tight relationship between ownership and consent; there is a need for consent because of ownership. If I own something then I need to give consent for someone else to handle it. But not all of these frameworks recognize that. The Ithaka S+R/Stanford CAROL project, listed above, talks about something called "shared understanding" where they basically envision that student data is not owned solely by the student but is a shared ownership between the school, the vendors, and third parties. In a recent EDUCAUSE Review article some of the framers of the project actually said "the presumption of

individual data propriety is wishful thinking". This, after they put the word "their" in [scare quotes](#) ("their" data) when referring to people being in a place of authority around the data about them. Ouch!

I mean I get what they are doing here. One looks at the Cambridge Analytica/Facebook scandal and says "oh how horrible" but their response is: you are a fool not to realize that it is happening all of the time. And maybe I am a fool but I still think it is horrible. The article points to big tech firms, how much data they already have about us, and how much money they have made with those data and uses it as a justification. But here is the thing, we are talking about students not everyday users. I think that makes a difference.

In another [EDUCAUSE Review article Chris Gilliard](#) points out the extractive nature of web platforms and the problems of using them with students. What of educational platforms? Is it really okay to import the same unethical issues that we have with public web platforms into our learning systems and environments? I'm comforted that most, if not all, of the other frameworks listed above and those that I've come across over the years do understand the importance of consent and ownership.

I've read broader criticisms of the notion of consent that I found quite persuasive by [Helen Nissenbaum](#) (Paywalled – sorry) but even she does not abandon consent completely. Rather she points out that consent alone, in and of itself, is not the answer. We need more than just consent – especially now when our culture grants consent so easily and thoughtlessly. Nissenbaum's criticisms of consent are in thinking of it as a free pass into respectful data privacy. But here I'm thinking of consent in terms of what we owe students – I see it as a starting place and the least of what we owe them.

What do we owe students when we collect their data? We owe them the decency of asking for it and listening if they change their mind.

How we ask for data collection and and how we continue to inform

students about how it is changing is not easy to answer and I want to be very careful of oversimplifying this complex issue. I think that, at least in part, it also an issue of my next tenet – transparency.

## Transparency

Asking for consent is no good if you are not clear about what you are asking for consent to do and if you are not in communication about how your practices are changing and shifting over time. In the policies and frameworks it seems like transparency is sort of a given – even the guys over at Ithaka S+R/CAROL have this one. We need transparency in asking for consent around data collection as consent sort of implies "informed consent" and we can't be informed without transparency.  But we also need ongoing transparency of the actual data and of how it is being used.

I found a [blog post from Clint Lalonde published after the 2016 EDUCAUSE Annual](#) that pretty much aligns with how I feel about it:

> "Students should have exactly the same view of their data within our systems that their faculty and institution has. Students have the right to know what data is being collected about them, why it is being collected about them, how that data will be used, what decisions are being made using that data, and how that black box that is analyzing them works. The algorithms need to be transparent to them as well. In short, we need to be developing ways to empower and educate our students into taking control of their own data and understanding how their data is being used for (and against) them. And if you can't articulate the "for" part, then perhaps you shouldn't be collecting the data."

What do we owe students when we collect their data? We owe them a

clear explanation of what we are doing with it.

But I actually think that Clint takes things a bit further than transparency at the end of that quote and it is there that I would like to break off a bit of nuance between transparency and learning for my third tenet.

## Learning

Providing information is not providing understanding and while I can concede that in consumer technologies providing information for informed consent is enough, I think that we have an obligation to go further in education and especially in higher education. We have an obligation because these are students and they have come to us to learn. While they will learn from "content" they will learn a lot more from the experience of the life that they lead while they are with us. If that life is spent conforming and complying to data collection practices that they don't understand and never comprehend the benefit of then, at best, they will graduate thinking all data collection is normal and they will be vulnerable to data collection practices from bad actors.

Of course this means that we ourselves need to better understand the data that we are collecting. It means that we need to know what is being collected and how it can be used ourselves before we start putting students through experiences where this is happening inside of a black box.

Inside of institutions we need to know what our vendors are doing. We need to create and articulate clear expectations about how we view the responsibilities of vendors around privacy and security. We need to vet their privacy and security policies and continue to check on them over time to see if any of those policies have changed. We need to build a culture of working with reputable companies. Then, we need to build that into the curriculum through increased digital, data,

and web literacy expectations.

What do we owe students when we collect their data? We owe them an understanding, an education, about what their data are; what they mean; and what can be done with them.

Collectively, as teachers, librarians, instructional designers, administrators, product developers, institutions, etc. it seems that we will always have a leg up on this though – we will always be in a position of power over students. And so my final tenet has to do with the value of the outcome of data collection.

## Value

Finally, if we are collecting student data I think that we should be doing if for reasons where we believe that the benefits to the student outweigh the potential costs to the student. This means putting the student first in the equation of what, when, why and how of student data collection.

I also need to be clear that I'm not talking about a license to forgo consent, transparency, and learning because it is believed that the best interest of the student are in intended. This is not an invitation to become paternalistic or to do whatever we want in the name of value.

My point being that the stakes are too high to be collecting student data for the heck of it, or because the system just does that and we are too busy to read the terms of service, or because someone is just wondering what we could do with it. If we have data we should be using the data to benefit students. If we are not using it we should have parameters around storage and yes even eventual deletion.

Collecting student data makes it possible to steal or exploit those data; while we can take precautions and implement security measures no data are as secure as data that were never collected in the first place and, to a lesser extent, data that were deleted. If we are going

to collect student data then we have to do something of value with it. Having piles of data stored on systems that no one is doing anything with is wasteful and dangerous. If there is not a clear value in collecting data from students then it should not be collected. If student data has been collected and is not serving any purpose that is valuable to students and no one can envision a clear reason why it will hold value in the future then maybe we should discuss deleting it.

Amy Collier speaks to how data collection can particularly impact vulnerable students in *[Digital Sanctuary: Protection and Refuge on the Web?](#)* (at the end of which she presents seven strategies that you should also read – no really, go read them right now – I'll wait). Collier starts with a quote from Mike Caulfield's *[Can Higher Education Save the Web?](#)*

> "Caulfield noted: "As the financial model of the web formed around the twin pillars of advertising and monetization of personal data, things went awry." This has created an environment that puts students at risk with every click, every login. It disproportionately affects the most vulnerable students: undocumented students, students of color, LGBTQ+ students, and students who live in or on the edges of poverty. These students are prime targets for digital redlining: the misuse of data to exclude or exploit groups of people based on specific characteristics in their data.

What do we owe students when we collect their data? We owe them an acknowledgement and explanation that we are doing something that will bring value to them with those data.

# Summation – Trust

Policy is great but I think taboo is stronger.

I can't get that power difference out of my head. I mean it is like the whole business model of education – knowledge is power and we have more knowledge than you but if you come to us we can teach you. There is this trust to it; this assumption of care. We will teach you – not, we will take advantage of you. And to offer that with one hand and exploit or make vulnerable with the other – yeah…

I've been working in educational technology for fifteen years and when I first started there was very little that I heard about ethics. Security, sure – privacy… that was a thing of the past, right? It seems that we are starting to see some repercussions now that are making us pause and I'm hearing more and more about these things.

Still, I see these conversations happening in pockets and while I'm seeing lots of new faces there are ones that are consistently absent. I wonder about new hires just entering the field, especially those in schools with little funding, and what kind of exposure they are given to thinking about these implications. I wonder if a question like "what do we owe students when we collect their data?" ever even comes up for some of them.

There is a whole myriad of issues that are now coming to light around surveillance and data extraction. What is happening to trust in our communities and institutions as we try to figure all of this out?

Perhaps more than anything, what we owe students when we collect their data is a relationship deserving of trust.

# Don't forget

So, don't forget, the #DigCiz call is open for you to respond how you see fit. Share your creation/contribution on the #DigCiz tag on twitter or in the comments on the #DigCiz post.

We go live Friday, November 2nd at 10 AM Eastern Time with a twitter chat and a video call into the session. Please join us!

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*Thanks go out to Chris Gilliard, Doug Levin, Michael Berman, and George Station, all of whom offered feedback on various drafts of this post.*

## Suggested Citation

*Caines, A. (2019). What Do We Owe Students When We Collect Their Data - A Response. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/owing_students*

# AI is Coming for Your Instructional and Learning Design Jobs, Apparently

## George Veletsianos

**Editor's Note**

This was originally posted to [George Veletsianos's blog [https://edtechbooks.org/-ptQ]](https://edtechbooks.org/-ptQ) on September 22, 2018.

For the most part, the early morning is my favorite time of the day. I like having a cup of coffee or tea, running, reading, writing, and just pretty much doing anything at 6am, than at 10am. This is not a productivity tip. You do what works for you.

What would have worked better for my productivity this morning was to have waited until later in the day to read Donald Clark's predictions of AI radically transforming instructional design* jobs and replacing instructional designers ("[adapt or die [https://edtechbooks.org/-tyVp]](https://edtechbooks.org/-tyVp)" he says). I don't disagree with everything that he writes. We agree that in a largely interdisciplinary and complex endeavor as online learning designers need to make sense of AI/machine learning/etc, and developers need to make sense of how learning works. We also agree that most of online learning offerings could be amazing, but are often unexciting. And I really like some of his writing, such as his [critique of the hole in the wall experiments [https://edtechbooks.org/-PeX]](https://edtechbooks.org/-PeX).

That's not where the problem lies. The problem is within this snippet:

> AI is here. Few argue that is will change the very nature of employment and therefore it will change what you learn, how you learn and even why you learn. We are, at last, emerging from a 30 year paradigm of media production and multiple choice questions, in largely flat and unintelligent learning experiences, towards smart, intelligent online learning, that behaves more like a good teacher, where you are taught as an individual with a personalised experience, challenged and, rather than endlessly choosing from lists, engage in effortful learning, using dialogue, even voice. As a Learning designer, Interactive designer, project Manager, Producer, whatever, this is the most exciting thing to have happened in the last 30 years of learning. Make the leap!

The talk about AI "behav[ing] more like a good teacher" offering "[typical cost reductions of 85-90% [https://edtechbooks.org/-tYj]](https://edtechbooks.org/-tYj)" is incompatible with the claims that AI isn't aiming to replace teachers or designers (a claim that Clark also makes [in 2016 here [https://edtechbooks.org/-scE]](https://edtechbooks.org/-scE), even though he later notes that the [time may not be 2018, but soon [https://edtechbooks.org/-YQB]](https://edtechbooks.org/-YQB)). If you develop software to do the job that a designer does, you are, to a degree, working toward substituting people with software. There may very well be good reasons to do that, but don't call upon designers to "adapt or die." The message sounds more like this: *We have developed software to change the functions of your job and we want you to develop a different skill set. If you don't, we'll replace you.*

We haven't yet reached the point where an independent AI decided to take on the job of the instructional designer.

I work with instructional designers, and train them. Are there parts of

their job that would be better automated? Yes. But here's the issue: That sort of work is not really instructional design work. That sort of work rarely involves the conceptualization and design of empowering, equitable, engaging, and rich learning environments. If Clark's notion of the work that the instructional designer does envisions a person who enters text into pre-determined templates, and does similar work, then we aren't talking about the same professional

Finally, I agree with Clark that it's prime time for instructional design to undergo a process of transformation. Not for the reason Clark sees (AI), but because instructional designers are now, more than ever, necessary to support the design and development of rich and equitable learning environments. To do so, they need to be empowered more, not relayed to conduct the work that machines could do more efficiently. The preparation of instructional designers needs re-envisioning to support this goal, and that requires not only an understanding of technical phenomena (similar to what Clark calls for), but also a truly critical engagement with what ID is and what it should do. To that end, I am increasingly turning to feminist practices, which is a topic that probably deserves it's own post.

Now, I'm going to go back to enjoying my coffee.

* Clark calls it learning design, I call it instructional design. The nomenclature varies between the UK (where he is) and North America (where I am), even if there are more similarities than differences between what learning and instructional designers to. For the purposes of this post, the differences are insignificant.

## Suggested Citation

*Veletsianos, G. (2019). AI is Coming for Your Instructional and Learning Design Jobs, Apparently. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/ai_is_coming*

# MOOCs and Directing an Academic Field

## Royce Kimmons

### Editor's Note

This was originally posted to [Royce Kimmons's blog](https://edtechbooks.org/-emt) on March 5, 2013.

One of the hallmarks of the academy is the idea of academic controversy or the notion that we need to have people willing and equipped to discuss diverse perspectives and to interrogate accepted beliefs.  The importance of this idea is evidenced in many prevalent artifacts of academe, including journal publishing, demands for academic freedom, and the practice of universities refusing to hire their own graduates as professors.  Essentially, the academy resides on the premise that diversity of opinion is important so that dialogue can take place and the best ideas can eventually rise to the surface.

As a student, your experience and what you learn in a course will be greatly influenced by the perspectives, biases, and even pet theories of those who are teaching you.  It's likely that the content of a course will largely remain the same whether you take it at a community college or an elite university.  The pedagogy of a course is often a toss-up, but probably doesn't influence students, because there's no way to know beforehand if "Professor Jones is a skilled pedagogue." Rather, when talking about decisions to attend elite universities, many students will talk about the ability to learn "from" specific professors

as being extremely important for their decision. That is, when seeking elite educational opportunities, we want unique perspectives from innovators in our field of interest whose interests, beliefs, values, and biases align with our own, and we want to be trained to research and work the way that they do.

As a result, divisions in the field (at best) or cults of personality (at worst) form. Students of one professor become accustomed to one way of thinking, students of another professor become accustomed to another way of thinking, and so on, and though they will bring their own unique views to the field themselves, they are nonetheless heavily influenced by those who taught them. Though they may not completely agree with their professors' lenses of interpretation, they will at least recognize them and use them as places from which to establish their own. Thus, their professors remain a central part of their academic careers moving forward.

If universities hired their own graduates as professors, then this would present a clear problem, because institutions would become bastions for monolithic thinking: presenting singular views and interpretations of issues in the field. By hiring graduates from other universities, the hope is, at some level, to increase the number of filters, diversify the academic gene pool, interrogate biases that would naturally arise in the institution, and pave the way for more open-minded discourse.

To work, however, this model requires professors to have limited audiences. If I, as a professor, train ten students a year, then as long as those students go somewhere else afterward, the perspectives that I will have ingrained in them will meet with valuable interrogation, and my students will mutually interrogate the institutions that they enter.

However, imagine if a single professor could train 100,000 students a semester. How quickly would biases and pet theories permeate the

field?  Who would stand to interrogate those students on their developed biases, and who would they stand to interrogate except themselves?  If I want to influence people to my way of thinking, what's faster: a) publishing in a journal that only a handful of experts in the world will read or b) teaching 100,000 novices that my viewpoint is the only viewpoint or the only viewpoint worth having?

If I want to transform the academic field in my own image without controversy or interrogation, then the way to do it is through a MOOC.

## Suggested Citation

*Kimmons, R. (2019). MOOCs and Directing an Academic Field. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/mooc_inbreeding*

# The Audacity: Thrun Learns a Lesson and Students Pay

## Tressie McMilan Cottom

### Editor's Note

This was originally posted to [Tressie McMilan Cottom's blog \[https://edtechbooks.org/-Dx\]](https://edtechbooks.org/-Dx) on November 19, 2013.

Sebastian Thrun, founder of Udacity, one of the most high-profile private sector attempts to "disrupt" higher education discovered inequality this week. Thrun has spent the last three years dangling the shiny bauble of his elite academic pedigree and messianic vision of the future of higher education before investors and politicos. He promised nothing short of radically transforming higher education for the future by delivering taped classroom lessons of elite professors through massive open online courses.So what went wrong?

After low performance rates, low student satisfaction and faculty revolt, Thrun [announced \[https://edtechbooks.org/-shp\]](https://edtechbooks.org/-shp) this week that he has given up on MOOCs as a vision for higher education disruption. The "godfather of free online education" says that the racially, economically diverse students at SJSU, "were students from difficult neighborhoods, without good access to computers, and with all kinds of challenges in their lives…[for them] this medium is not a good fit." It seems disruption is hard when poor people insist on existing.

Thrun has the right to fail. That's just business. But he shouldn't have

the right to fail students like those at San Jose State and the public universities that serve them for the sake of doing business.

It is fine if you missed it but for three years now Massive Open Online Courses from tech giants and start-ups have been selling a solution to all that ails higher education. Two short years ago Thrun declared to Silicon Valley and the traditional universities with the courage to follow him that he could not go back to teaching at Stanford. He'd taken the red pill, massive open online courses pioneered by Udacity, and he couldn't go back.

In 2013, reality harshed Thrun's red pill high. The low completion issues he had encountered with his MOOC courses while at Stanford became deeper, more fundamental problems at [San Jose State [https://edtechbooks.org/-LJC]](https://edtechbooks.org/-LJC). Single digit completion rates in MOOC courses make for-profit colleges' dismal completion rates look progressive. Thrun said the courses were the pedagogical best he could make them. Coming from a rock star professor from an elite institution, that suggests the class must have been pretty damn good. But it [wasn't [https://edtechbooks.org/-ksn]](https://edtechbooks.org/-ksn) good enough for SJSU students.

The faculty at SJSU handed Thrun's Udacity a very public [flogging [https://edtechbooks.org/-JZD]](https://edtechbooks.org/-JZD). Many faculty members questioned the morality of a publicly funded college with a mission to serve diverse students should spend tax-payer money and invest the hopes of students with fewer options than those at the Stanfords of the world into being Thrun's guinea pigs.

It is a fair question that in many ways the academic and scientific communities have already answered with a resounding no. When I want to interview students for a research project I have to present a carefully, detailed plan to my University for approval. The plan is vetted by an [Institutional Review Board [https://edtechbooks.org/-Thr]](https://edtechbooks.org/-Thr). Every research university has an IRB but they didn't always.

Before 1974 doctors figured out the internal reproductive organs of women by cutting them open [without [https://edtechbooks.org/-NiP]](https://edtechbooks.org/-NiP) consent or sedation. They [observed [https://edtechbooks.org/-iCb]](https://edtechbooks.org/-iCb) the effects of untreated syphilis on test subjects — insanity and death — without bothering to inform the participants that there was a known, available treatment. They [told [https://edtechbooks.org/-UIW]](https://edtechbooks.org/-UIW) volunteers they had electrocuted a stranger to see how human decision-making works.

Basically, before IRB a lot of modern science would have been war crimes had the U.S. been on the losing end of World War II. And because this is America, there was a disturbing pattern among the victims of these kinds of horrific experiments. They were overwhelmingly black, brown, indigenous, poor, and powerless. A 1978 report on regulating research on human beings declared that ethical research has "an obligation to protect persons from harm by maximizing anticipated benefits and minimizing possible risks of harm". The connection to inequality was clear. The most vulnerable were likely to be prodded, poked and tested because the elite don't often sign up to risk their lives for little reward. And flagrant disregard for these risks had few penalties because the victims were powerless. The rules governing academic and scientific research recognizes that some groups are too vulnerable to risk the failure that the scientific method requires.

Where was this institutional ethic in what Thrun freely concedes was always an experiment? When Udacity was primarily interested in beaming the erudite countenance of professional smart people out into the world, it can be said that any risk was assumed by the those who chose to sign up. But when Udacity went after formal arrangements with colleges like SJSU to offer courses, for credit, to students enrolled in the University, the risk calculation changed.

Udacity's partnership with SJSU mostly offered general education courses in things like math. General education courses like English

and math fill up fast in most colleges because all students have to take them. At places like SJSU that don't benefit from Stanford's highly selective admissions standards to skim the most prepared students, those general education classes have to do double-duty filling in learning gaps. Offering these courses for credit using Udacity significantly increases the incentive for students to take the class and risks for students if the class is a dud. General education courses are path dependent, meaning you fail one course at the beginning of a sequence and you cannot take the next course in that sequence. Research shows that disrupting path dependent coursework really hurts the most marginal students by increasing their time to degree completion, dinging their motivation, and sinking their GPAs.

Udacity always knew that the non-completion rates were high for its courses. They may not have known why, but that was a reason for greater testing, not a reason to roll-out the for-profit product for University clients. With sanction from the California governor on down the political line, Udacity had to meet no ethical requirement to prove that the risk of failure was worth the promise of rewards. And what was promised? University partners could prove they were innovative, forward-thinking, and cut expensive faculty out of the complex equation of teaching students.

To prove that teachers don't matter and Stanford knows best what the world needs, a public university gave a for-profit company unfettered authority to experiment on its students without informed student consent or consideration of an ethical threshold. We may need more experimentation in higher education but it should be as explicit and ethical as any other we conduct in the name of science and progress.

Thrun says it wasn't a failure. It was a lesson. But for the students who invested time and tuition in an experiment foisted on them by the of [stewards [https://edtechbooks.org/-Hbx]](https://edtechbooks.org/-Hbx) public highered trusts, failure is a lesson they didn't need. Students like those at SJSU tend to know quite a bit about failure — institutional, social, and political.

They did not need to learn again what Thrun, a smart guy from Stanford and Google, could have learned from a book.

## Suggested Citation

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# The Lower Ed Ecosystem: Bootcamps Edition

## Tressie McMilan Cottom

### Editor's Note

Ah, bootcamps.

Coding bootcamps are the new MOOCs which were the new correspondence school which was the old video on-demand schools.

Two of the largest bootcamp brands closed last week within days of each other. Dev Camp maybe had the biggest brand but Iron Yard operated in more areas. Both are now gone. You can read more about the closings and their ownership history/structure from [Audrey Watters.  [https://edtechbooks.org/-iLv]](https://edtechbooks.org/-iLv)

I got lots of inquiries about the closures. Audrey does a great job of laying out the landscape. I would put a finer point on some of the political economy:

> **The Dr. Tressie McMillan Cottom** ✔
> @tressiemcphd
>
> Boot camps are a tax paid by winners of social inequality for marginally better odds in hyperlocal short term occupational bubbles #LowerEd
>
> ♡ 188   1:24 PM - Jul 16, 2017
>
> 💬 50 people are talking about this   ›

Boot camps are a tax paid by suitably credentialed workers who do not have enough capital (economic, social, or cultural) to enter a high status field of work in which some job is undergoing an actual or projected short-term demand bubble.

Lower Ed did not refer to a set of schools but to a sociological process of credentialism. Bootcamps are part of the Lower Ed ecosystem:

I gave a talk at Berkman [https://edtechbooks.org/-XaL]recently. That's where that image of my slideshow is from. I organize Lower Ed as the processes responding to a problem. The problem is the shift of job training risk from states and firms to individuals. Boot camps were supposed to, as Jeff Selingo responded to me on Twitter, disrupt graduate school and not college generally. The idea was that boot camp participants already have the training and capital necessary to access white collar work. Boot camps would merely train them in a specific job task. These were taken at individual cost, in money and time. Without a guaranteed job or salary while training, this constitutes a pre-tax paid for job entry. Of course, this only works, as I go on to say on Twitter, if 1) you don't need the boot camp certificate as a signal 2) wages are sufficiently high to offset individual costs and 3) the boot camp credential functions for both labor market entry

AND promotion. We have no independent evidence that any of these things are true. For the problem that produced the market demand and the risk structure of participating in them, boot camps are a type of lower ed.

People don't like that. Lots of people who I like do not like that assessment. I would remind non-sociologists of a few things. One, there are always exceptions to a rule. Two, exceptions are part of how we systematically arrive at the rule. And, three, individual success stories are not the point. The structure of the stories is the point. Just like black women get mad at me because they love their Capella degree, boot camp faithful often get angry at this assessment. I cannot help that but I can tell you that there is a version of the future where you don't have to be happy about paying for job training without a promise of a job or a career.

There is a wild wild west of credentialing, produced by the characteristics of the new economy. We will have another bootcamp, just like we had another MOOC. Until the social problem is solved or the political conditions that make the market the only solution to that problem change, we will keep writing this story. The right research agenda right now is to map the credential ecosystem, detail the context of different Lower Ed credentials by groups impacted, occupations that are undergoing change, and risk shifted.

## Suggested Citation

*Cottom, T. M. (2019). The Lower Ed Ecosystem: Bootcamps Edition. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/lower_ed_ecosystem*

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# #BreakOpen Breaking Open

## Ethics, Epistemology, Equity, and Power

# Catherine Cronin, Maha Bali, Taskeen Adam, Christian Friedrich, Sukaina Walji, & Christina Hendricks

## Editor's Note

This was originally posted to [the OER18 conference news feed \[https://edtechbooks.org/-Xs\]](https://edtechbooks.org/-Xs) on February 1, 2018.

*The year is 2045. SDG (Sustainable Development Goal) 4 has been achieved for 10 years now; there is equal and equitable education for all. This was done through a consortium of major technology companies, coming together, partnering with the United Nations and the OECD, and generously agreeing to invest in electrifying and connecting the entire globe in order for everyone to have free access to information. Save for a few non-participating areas, everyone is connected. Universities, now completely privatised institutes, are only available to the extremely wealthy, as free open online education meets the needs of the masses. The cost of physical infrastructure was an unnecessary overhead on a mass scale There are only few outliers in the* [PISA](https://www.oecd.org/pisa/) [https://www.oecd.org/pisa/] *rankings. In addition, the* [tracking software to aid formative assessment](https://edtechbooks.org/-eWi) [https://edtechbooks.org/-eWi]*is much more efficient than a physical*

*educator. It detects deviation from the expected trends of learning, and rectifies it earlier on.  Dropout costs have been eradicated by forecasting what a learner will like and what a learner will succeed in. Personal data is now openly accessible to optimise user experience, which makes it much easier for the companies to predict learners' success. The education platforms fully gamify their content and all learning, as it would bore learners otherwise; competition among themselves helps learners to stay alert.  [65% of all future jobs have not been seen yet](https://edtechbooks.org/-Kfh) but the 'Big Three' tech companies (two in the US, one in China) are doing their best to spit out a flexible workforce. Everyone subscribes to the new system; everyone is educated on the Anglo-Chinese canon of best practices in their disciplines; what could be better than free access to knowledge and information?*

*However, in the cyber revolution, many local knowledge institutes who could not compete with free-of-charge educational models of the revolution, either went bankrupt or were amalgamated into the giants. As a result, the main source of knowledge, what constitutes knowledge, and how we test learning gains, is now defined by the three tech giants. The educational content they provide are purely instrumental, in order to create the workforce the world needs. [Surveillance footage and algorithms built into learning environments](https://edtechbooks.org/-skS) determine what profession best suits you, somewhat removing individual agency. Learners try to meet in physical spaces, but without support from institutions or educators. The access to free information and services comes at a price. You are not selling your soul or your kidney, but pretty much everything else. Your freedom, your privacy, your deepest darkest secrets, from [your conversations on Tinder](https://edtechbooks.org/-AoF) to the thoughts you told your therapist. No more surprises, on either side, in 2045.*

*Despite efforts to open education, the levels of inequality are the highest they have ever been. Why? Because despite open education,*

*the [knowledge that is made open to everyone is best utilised by those who already had wealth and power](https://edtechbooks.org/-Edv) [https://edtechbooks.org/-Edv]. The Knowledge Gap theory argues that as information is increased in a society, it is absorbed differently by recipients [depending on their socio-economic status](https://edtechbooks.org/-TTnb) [https://edtechbooks.org/-TTnb]. Those with higher socio-economic status are better aligned to extracting higher benefit from the educational possibilities available.*

At OER18, a group of global educators (authors of this post from Canada, Egypt, Germany, Ireland,and South Africa, joined by Martin Weller from UK and Jamison Miller from US) will facilitate a hybrid workshop titled *Breaking open: Conversations about ethics, epistemology, equity and power.* In this post, we briefly explore these four themes in relation to open education, and extend an invitation for your participation in the workshop — either in-person or virtually. Rather than explain them in detail, we offer some food for thought, and invite readers to contribute their own thoughts ahead of OER18.

# i) Ethics

Overemphasis on participation in MOOCs is an ethical question that represents other ethical questions for open: who gets to decide the framing of open for others? Whose values and norms are dominant and how might they marginalize different others?

Knox criticises what researchers deem as "correct involvement" in the MOOC, as it rejects difference [https://edtechbooks.org/-boi]. Students that participate very little are negatively termed "lurkers" [https://edtechbooks.org/-boi], when that could be the way they learn best. Knox terms this "immunisation" [https://edtechbooks.org/-boi], which he defines as the regulation of the external and unfamiliar, rather than acknowledging and embracing the difference [https://edtechbooks.org/-xUd]. However, the completion rates of these courses tend to be 6.5% to 7.5%, indicating that the presumed

normative student is not a representation of the majority of students. In fact, the "lurker" is a better representative of the majority [https://edtechbooks.org/-boi].

# ii) Epistemology



World scaled by number of documents in Web of Science by authors living there (CC BY-NC-ND Worldmapper.org / Sasi Group & Mark Newman)

Every quote below is itself a provocation; all are written by an African scholar or is one referring to the situation of the global South. They flow so well together we did not need to insert any text in between. Note that the articles cited by Nobes were originally written in French, a reminder that all the world's knowledge is not originally written in English.

*"… a conception of open access that is limited to the legal and technical questions of the accessibility of science without thinking about the relationship between center and periphery* **can become a source of epistemic alienation and neocolonialism in the South***". Piron et al. (2017) (quoted, translated, in Nobes, 2017 [http://journalologik.uk/?p=149])*

*"The idea that open access may have the effects of neocolonialism is incomprehensible to people blind to epistemological diversity, who reduce the proclaimed universalism of Western science to the impoverished model of the standards imposed by the Web of Science model. For these people, the invisibility of a publication in their numerical reference space (located in the center of the world-system) is equivalent to its non-existence. The idea that valid and relevant knowledge can exist in another form and independently of the world-system that fascinates them is unthinkable." Piron et al. (2017) (quoted, translated, in Nobes, 2017* [http://journalologik.uk/?p=149]*)*

*"The resulting consequences are, in particular, the teachers of the Southern countries who quote and read only writers from the North and impose them on their students and the libraries of our universities who do everything to subscribe to Western scholarly journals while they do not deal with our problems. (Mboa Nkoudou, 2016* [https://edtechbooks.org/-FFQ]*, quoted, translated, in Nobes 2017* [http://journalologik.uk/?p=149]*)"*

OER creation has an impact on asserting epistemic stance:

*"creation and sharing of OER can be a way of asserting an epistemic stance, or one's own unique (individual or collective) perspective of knowledge. This is vital for people from marginalised communities whose histories and knowledge have been sidelined or suppressed by colonial or hegemonic powers. The internet as a communication platform, and OER as an educational resource that can be freely shared, provide an opportunity for educators in the Global South to contribute their own ideas, give voice to their own perspectives and participate in a global conversation"* (Arinto et al., 2017 [https://edtechbooks.org/-SMs])

# iii) Equity



What does equity mean for "open"? "Equity vs Equality" flickr photo by MN Pollution Control Agency https://flickr.com/photos/mpcaphotos/31655988501 shared under a Creative Commons (BY-NC) license

The image above is meant to differentiate between equity and equality…But even that metaphor is problematic. For the most part, has openness focused on giving everyone the same access to the same apple? Has our approach to open assumed that people had an equal capacity to jump up and reach for the apple of their choice? What are the different needs of people with disabilities, and how do we nurture agency while respecting difference, rather than create dependencies?

Would access to an open online course to a university graduate, and to someone with no tertiary education, translate to equal opportunities for both?

*"While the quantity of available OER is growing, this is not necessarily of value to educators … . Added to this is the question of the appropriateness of the available OER for an educator's or student's specific use. Several of the ROER4D sub-projects found that educators and students use online materials based on their perceived relevance,*

*regardless of whether they are openly licensed. A key aspect of relevance is language. Most of the globally available OER are in English, which means that they need to be translated for use in contexts where the medium of instruction is different." (Arinto et al, [2017](https://edtechbooks.org/-SMs))*

While we see only little, if any, institutional recognition for the issue of this oligopoly of English OER and MOOCs, there are some laudable efforts to create awareness and recognition of a more diverse and rich landscape of materials that are not originally created in English. [Tannis Morgan](https://twitter.com/tanbob), for example, has not only pointed out these issues, [she also curates and displays OER to raise awareness](https://edtechbooks.org/-RPU).

*"Beyond providing access to educational resources, the power of OER as a means for achieving social inclusion lies in its potential to transform teaching into a more participatory process. In particular, adapting OER (for example by translating it into a local language, customising it to suit a particular set of students or combining several OER to make a new resource) broadens an educator's understanding of what teaching entails beyond "delivering" instruction, encourages reflection on how to engage students more, and promotes collaboration with other educators as well as with students." (Arinto et al, [2017](https://edtechbooks.org/-SMs))*

However:

*"...ROER4D studies indicate limited adaptation of OER by educators and students. In the cross-regional survey (de Oliveira et al., Chapter 3), only 18% of educators and 6% of students reported having participated in adapting or modifying OER at least once. Educators and students generally use OER "as is" (verbatim), which is the most basic form of reuse, equivalent to simply "copying" content. The factors that account for this relatively low degree of participation in OER-based practice include technical skills (including fluency in*

*English), pedagogical practices, institutional policies and support mechanisms." (Arinto et al, [2017 \[https://edtechbooks.org/-SMs\]](https://edtechbooks.org/-SMs)).*

# iv) Power



"Print Gallery solved (2003) – H.W. Lenstra (1949)" flickr photo by pedrosimoes7
https://flickr.com/photos/pedrosimoes7/25894329238 shared under a Creative Commons (BY) license

*"Values and practices – which legitimate certain interests and not others – contribute just as much to global imbalances as material disparities do."* (Czerniewicz, [2013 \[https://edtechbooks.org/-nsc\]](https://edtechbooks.org/-nsc))

To what extent does openness follow [principles of just design, as highlighted here \[https://edtechbooks.org/-tWjc\]](https://edtechbooks.org/-tWjc), such as asking: who participates in the process, who benefits and who gets harmed? To

what extent do we question the actual impact of open beyond intentions, and to what extent does open truly dismantle and transform existing global power hierarchies rather than reproducing them in a different form? To what extent is the work of open participatory and done with humility, rather than patronizing and charitable in nature?

Who is allowed access to MOOCs, and who gives this access, also expands the Digital Divide and creates unequal power relations. Countries such as Iran, Cuba, and Somalia, for example, have faced bans [https://edtechbooks.org/-GTv] from accessing MOOCs due to USA sanctions. Thus the USA has control over who can access "open" education and who cannot, as they host the major servers of Edx and Coursera. Additionally, due to the server locations of many platforms, the US government has access to your data. This may be condoned by American citizens, but is not consented by other countries.

Developing country universities are often limited to producing MOOCs on platforms that require exorbitant partnering fees, or that vet which universities join based on criteria of quality or rankings (which are mostly western) as partners, with a few exceptions. Africans (and others from developing countries) become the consumers of Western knowledge, methods and practice, rather than adapters and contributors [https://edtechbooks.org/-cXp].

Funders and sponsors also exercise power when mandating licensing conditions for outputs of funded projects; sometimes mandating a CC-BY license constitutes a form of asserting hegemony and power and not attended to local contexts or needs (academics genuinely concerned about CC-BY). Why not give grantees the autonomy to decide on which open licence suits their needs and contexts?

# Invitation to participate

Let's start this conversation ahead of our OER18 workshop: time zones and synchronous conversations are inequitable. We also hope to create spaces where more people can contribute related thoughts and resources ahead of and beyond OER18 – which we will curate and help disseminate, with attribution, using the license of your choice. :)

Our provocative question is this:

**How do we use openness to exclude, overpower and/or oppress marginalized individuals, communities, knowledge systems?**

We invite you to submit provocations or commentary in any form, using the hashtag **#BreakOpen** [https://edtechbooks.org/-rbd] on any (or any combination) of our 4 themes: **ethics**, **epistemology**, **equity** or **power** over the coming two weeks.

Provocations may be in the form of tweets, videos, images, blog posts, poems, links to existing articles, evidence-based research, philosophical essays, (scripts of) theater plays, short films, cartoons, sketches, etc. If you would prefer to submit a provocation that is not in English, please be so kind and provide us with closed captioning or a transcript (unless, of course, not providing these is part of your provocation).

We also invite you to join the upcoming workshop at OER18 entitled *Breaking open: Conversations about ethics, epistemology, equity and power* (facilitated by Maha Bali, Taskeen Adam, Catherine Cronin, Christian Friedrich, Sukaina Walji, Christina Hendricks, Martin Weller and Jamison Miller). There will be opportunities for virtual participation, so the conversation in the room isn't only made up of people attending OER18.

# Additional context for this OER18 workshop

This session builds continuity and dialogue across time and space, and across several open education conferences. The first workshop in this particular series was conducted at **OpenEd17** [https://edtechbooks.org/-xKJ] with a majority North American audience and a more general question: "How can we destroy the Open Education Movement?" [https://edtechbooks.org/-PoV]. That session was designed in response to travel restrictions to the United States at the time and the session facilitators' consideration of appropriate ethical responses to these. Working to provide the same level of participation for in-person and virtual participants (as much as possible) was a key ethical concern driving the session. Both on-site and virtual participants provided a range of provocative responses to the guiding question. But even then, the majority came from North America, meaning this range was limited.

**OER18** [https://edtechbooks.org/-uuz] in Bristol, UK, will be the second session in this series, engaging in the same critical framework but with a modified focus, a more global audience, and a broader range of workshop facilitators. The OER18 session also follows up on many of the themes and ideas generated at OER17 in London, where the theme was 'The Politics of Open' [https://edtechbooks.org/-rNV].

A third session is planned for **OEGlobal** [https://edtechbooks.org/-WpC] in Delft, Netherlands, offering an opportunity to build on the conversation further with a different, and truly global, audience. The contributions of people before, during and after these sessions will be curated to allow for comparison and contrast between perspectives on how we have been "breaking open" and what steps would help to address these problems.

The session format for OER18 has a twist in our plan to use

"provocations", similar to [Towards Openness
[http://towards-openness.org]](http://towards-openness.org) workshops done in the past. If you are
looking for examples of a provocation as it was used in previous
workshops, please feel free to check some of them out here:
[https://edtechbooks.org/-WYZ](https://edtechbooks.org/-WYZ)  Please also note that while most
previous provocations for Towards Openness have been recorded in a
video format, this is not a necessity! As noted above, provocations
may be in any form.

Finally, we also wish to connect with existing conversations in this
area — within and beyond open education conferences. Please use the
[#BreakOpen [https://edtechbooks.org/-rbd]](https://edtechbooks.org/-rbd) #oer18 hashtags along
with existing hashtags so that conversations and communities can be
connected. We have already noted the [#TowardsOpenness
[https://edtechbooks.org/-uni]](https://edtechbooks.org/-uni) hashtag, and thanks to Frances Bell for
noting the [#critoep [https://edtechbooks.org/-XwL]](https://edtechbooks.org/-XwL) hashtag, among
others.

## Suggested Citation

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Retrieved from https://edtechbooks.org/wild/breakopen*

# Open Cyborgs at #ALTC

## Rob Farrow

### Editor's Note

This was originally posted to Rob Farrow's blog [https://edtechbooks.org/-TqA] on September 5, 2017.

I'm in Liverpool this week for the annual ALT Conference [https://www.alt.ac.uk/altc]. I'm primarily here as part of the UK Open Textbooks [http://ukopentextbooks.org/] project to assist and understand the adoption strategy used by OpenStax [https://openstax.org/].

In the opening keynote Bonnie Stewart encouraged us to understand embodied work and embodied perspectives as important as the 'rational' perspectives that have traditionally informed academic inquiry. She appealed to Haraway's (1985) socio-feminist conception of the cyborg [https://edtechbooks.org/-sCa] as a model for open practice in education. "The cyborg gives me a model of hope and possibility… not faithful to norms (as in a bell curve) but capable of inspiring actions and projects." My own reading of Haraway identifies this position with the following adjectives: genderless; un-alienated; independent; oppositional; un-hierarchical; rhizomatic; irreverent; subversive; quintessential; bodily; illegitimate; monstrous; inorganic. (Most of these appear to be negatively defined – i.e. defined by what they are not. This is also common for open approaches.)

| Representation | Simulation |
| --- | --- |

| Bourgeois novel (realism) | Science Fiction (postmodernism) |
|---|:---:|
| Organism | Biotic component |
| Depth | Surface |
| Perfection | Optimization |
| Organic division of labour | Cybernetics of labour |
| Reproduction | Replication |
| Community ecology | Ecosystem |
| Freud | Lacan |
| Sex | Genetic engineering |
| Mind | Artificial Intelligence |
| World War II | Star Wars |
| White capitalist patriarchy | Informatics of domination |

I found this table more helpful in explaining the difference between traditional, hierarchical positions and the "informatics of domination". (I left out some of the more esoteric elements of the table.) Here are a couple of quotes that also seem to be useful for understanding the position:

> "The cyborg is not subject to Foucault's biopolitics; the cyborg stimulates politics, a much more potent field of operations." (p.302)

> "One important route for reconstructing socio-feminist politics is through theory and practice addressed to the social relations of science and technology, including crucially the system of myth and meanings structuring our imaginations. The cyborg is a kind of disassembled and reassembled, postmodern collective and personal self. This is the self feminists must code." (p.302)

I am not sure I understand the cyborg theory outlined in the paper

well enough to say whether it really makes sense – but it's an interesting take on how to identfy the normative dimensions of openness. For me it's perhaps close to the kind of contrarianism presented in Deleuze & Guattari's (1972) *Anti-Oedipus*, perhaps because of the common interest in Lacanian decentralisation of the psyche.  (Similarly, they also speak of 'desiring machines' and 'rhizomes'.)(Wikipedia reports that feminist Lacanians like Irigaray also an influence.)

Haraway summarises her argument as follows:

1. The production of total, universalising theory is a major mistake that misses most of reality (probably always and certainly now)
2. Taking responsibility for the social relations of science and technology means refusing an anti-science metaphysics, a demonology of technology, and so embracing the skilful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts

Cyborg theory is anti-essentialist and aims at overcoming the patriarchal dualisms, taxonomies and logics (self/other, culture/nature, male/female, civilized/primitive, right/wrong, truth/illusion, total/partial) that have characterised Western history.  This belief in emancipation and freedom is one that many open practitioners share, but here the approach is deconstructive.

## Suggested Citation

*Farrow, R. (2019). Open Cyborgs at #ALTC. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/open_cyborgs*

# Platform Literacy in a Time of Mass Gaslighting

## Or - That Time I Asked Cambridge Analytica for My Data

## Autumm Caines

### Editor's Note

This was originally posted to [Autumm Caines's blog](#) on March 23, 2018.

# Digital Citizenship and Curiosity

In the beginning of 2017 I first discovered Cambridge Analytica (CA) through a series of videos that included a Sky News report, [some of their own advertising](#), as well as a [presentation by their CEO Alexander Nix](#). I found myself fascinated by the notion that big data firms, focused on political advertising, were behind those little facebook quizzes; that these data firms were creating profiles on people through harvesting their data from these quizzes and combining it with other information about them like basic demographics, voter and districting information, and who knows what else to create a product for advertisers. I was in the process of refining a syllabus for a class and [creating an online community around digital citizenship](#) so this was of particular interest to me.

My broad interest in digital citizenship is around our rights and responsibilities online and I was compelled by the thought that we

could be persuaded to take some dumb quiz and then through taking that quiz our data would be taken and used in other ways that we never expected; in ways that would be outside of our best interests.

I had questions about what we were agreeing to: how much data firms could know about us, what kind of metrics they were running on us, how the data could be shared, and what those messages of influence might look like. I started asking questions but when the answers started coming in I found myself paralyzed under the sheer weight of how much work it took to keep up with all of it not to mention the threats of financial blowback. This paralisis made me wonder about the feasibility of an everyday person to challenge this data collection, request their own data to better understand how they were being marketed to, and of course the security and privacy of the data.

Cambridge Analytica is again in the news with a whistleblower coming forward to give more details – including that the company was harvesting networked data (that is not just you but your friends' data) from facebook itself (reactions, personal messages, etc,) and not just the data entered into the quizzes. Facebook has suspended the Cambridge Analytica's accounts and distanced themselves from the company. Additionally, David Carroll, a professor from the New School Parson's School of Design, filed a legal action this past week against the company in the UK. The story is just going crazy right now and every time I turn around there is something new.

However, much of this conversation is happening from the perspective of advertising technology (adtech), politics, and law. I'm interested in it from the perspective of education so I'd like to intersect the two.

## The Request

A few weeks after I found those videos, featured by and featuring Cambridge Analytica, I came across a Motherboard article that gave

some history of how the company was founded and how they were hired by several high profile political campaigns. Around this time I also found Paul-Olivier Dehaye of [personaldata.io](personaldata.io) who was [offering to help](offering%20to%20help) people understand how to apply to get a copy of their data from Cambridge Analytica based on the [Data Protection Act (DPA)](Data%20Protection%20Act%20(DPA)), as the data was being processed in the UK.

My interests in digital citizenship and information/media/digital literacy had me wondering just how much data CA was collecting and what they were doing with it. Their own advertising made them sound pretty powerful but I was curious about what they had, how much of it I'd potentially given to them through taking stupid online quizzes, and what was possible if combined with other data and powerful algorithms.

The original request was not to Cambridge Analytica but rather to their parent company SCL Elections. There was a form that I had to fill out and a few days later I got another email stating that I had to submit even more information and GPB £10 payable in these very specific ways.



Response from SCL asking for more information from me before they would process my Subject Access Request

[/caption]Out of all of this, I actually found the hardest part to be

paying the £10. My bank would only wire transfer a minimum of £50 and SCL told me that my $USD check would have to match £10 exactly after factoring in the exchange rate the day they recieved it. I approached friends in the UK to see if they would write a check for me and I could pay them back. I had a trip to London planned and I considered dropping by their offices to give them cash, even though that was not one of the options listed. It seemed like silly barrier, that a large and powerful data firm could not accept a PayPal payment or something and would instead force me into overpayment or deny my request due to changes in the exchange rate. In the end, PersonalData.io paid for my request and I sent along the other information that SCL wanted.

# Response

After I got the £10 worked out with Paul I heard from SCL pretty quickly saying that they were processing my request and then a few days later I got a letter and an excel spreadsheet from Cambridge Analytica that listed some of the data that they had on me.

It was not a lot of data, but I have administered several small learning platforms and one of the things that you learn after running a platform for awhile is that you don't really need a lot of data on someone to make certain inferences about them. I also found the last

tab of the spreadsheet to be disconcerting as this was the breakdown of my political beliefs. This ranking showed how important on a scale of 1-10 various political issues were to me but there was nothing that told me how that ranking was obtained.

Are these results on the last tab from a quiz that I took; when I just wanted to know my personality type or what Harry Potter Character I most resemble? Is this a ranking based on a collection and analysis of my own Facebook reactions (thumbs up, love, wow, sad, or anger) on my friend's postings? Is this a collection and analysis of my own postings? I really have no way of knowing. According to the communication from CA it is these mysterious "third parties" who must be protected more than my data.

**THE RECIPIENTS OR CLASSES OF RECIPIENTS OF PERSONAL DATA TO WHOM THE DATA WAS OR MAY HAVE BEEN DISCLOSED:**

| Clients | Service providers |
|---|---|
| Political campaigns | Digital marketing platforms |
| Independent expenditure groups | Mail vendors |
| Non-profit organizations | Call centers |
| Commercial entities | Research partners |
| | Affiliated data processors |
| | Legal counsel |

Some names and identifying particulars are not being disclosed to protect the identity of third parties.

Excerpt from the original response to the Subject Access request from Cambridge Analytica

In looking to find answers to these questions Paul put me in touch with a [Ravi Naik](#) of [ITN Solicitors](#) who helped me to issue a response to CA asking for the rest of my data and more information about how these results were garnered about me. We never got a response that I can share and in considering my options and the potential for huge costs I could face it was just too overwhelming.

Is it okay to say I got scared here? Is it okay to say I chickened out and stepped away? Cause that is what I did. There are others who are more brave than me and I commend them. David Carroll, who I mentioned earlier just filed legal papers against CA, followed the same process that I did [is still trying to crowdfund resources.](#) I just didn't have it in me.  Sorry democracy.

It kills me. I hope to find another way to contribute.

# Platform Literacy and Gaslighting

So now it is a year later and the Cambridge Analytica story has hit and everyone is talking about it. I backed away from this case and asked Ravi to not file anything under my name months ago and yet here I am now releasing a bunch of it on my blog. What gives? Basically, I don't have it in me to take on the financial risk but I still think that there is something to be learned from the process that I went through in terms of education. This story is huge right now but the dominant narrative is approaching it from the point of view of advertising, politics, and the law. I'm interested in this from the perspective of what I do – educational technology.

About a week ago educational researcher and social media scholar [danah boyd delivered a keynote at the South by Southwest Education (SXSW Edu) conference](#) where she was pushed back on the way we approach media literacy with a focus on critical thinking – specifically in teaching but this also has implications for scholarship. This talk drew a body of compelling criticism from several other prominent educators including [Benjamin Doxtdato](#)r, [Renee Hobbs](#), and [Maha Bali](#) which inspired [boyd to counter with another post responding to the criticisms](#).

The part of boyd's talk (and her response) that I find particularly compelling in terms of overlap with this Cambridge Analytica story is in the construct of [gaslighting](#) in media literacy.  boyd is not the first

to use the term gaslighting in relation to our current situation with media but, again, often I see this presented from the perspective of adtech, law, or politics and not so much from the perspective of education.

If you don't know what [gaslighting](#) is you can take a moment to look into it but basically it is a form of psychological abuse between people who are in close relationships or friendships. It involves an abuser who twists facts and manipulates another person by drawing on that close proximity and the knowledge that they hold about the victim's personality and other intimate details. The abuser uses the personal knowledge that they have of the person to manipulate them by playing on their fears, wants, and attractions.

One of the criticisms of boyd's talk, one that I'm sympathetic to, is around the lack of blame that she places on platforms. Often people underestimate what platforms are capable of and I don't think that most people understand the potential of platforms to track, extract, collect, and report on your behaviour.

In her rebuttal to these criticisms, to which I am equally sympathetic, boyd states that she is well aware of the part that platforms play in this problem and that she has addressed that elsewhere. She states that is not the focus of this particular talk to address platforms and I'm okay with that – to a point. Too often we attack a critic (for some reason more often critics of technology) who is talking about a complex problem for not addressing every facet of that problem all at once. It is often just not possible to address every angle at the same time and sometimes we need to break it up into more digestible parts. I can give this one to boyd – that is until we start talking about gaslighting.

It is exactly this principle of platforms employing this idea of personalization, or intimate knowledge of who a person is, which makes the gaslighting metaphor work. We are taking this thing that is

a description of a very personal kind of abuse and using it to describe a problem at mass scale. It is the idea that the platform has data which tells it bits about who you are and that there are customers (most often advertisers) out there who will pay for that knowledge. If we are going to bring gaslighting into the conversation then we have to address the ability of a platform to know what makes you like, love, laugh, wow, sad, and angry and use that knowledge against you.

We don't give enough weight to what platforms take from us and how they often hide or own data from us and then sell it to third parties (users don't want to see all that messy metadata.... Right?). I'm not sure you even glimpse the possibilities if you are not in the admin position – and who gets that kind of opportunity?

It would be a stretch to call me a data scientist but I've built some kind of "platform literacy" after a little more than a decade of overseeing learning management systems (LMS) at small colleges but most people interact with platforms as a user not as an admin so they never get that. I'm not sure how to quantify my level of platform literacy but please understand that I'm no wiz kid – an LMS is no Facebook and in my case we are only talking about a few thousand users. I'm more concerned with making the thing work for professors and students than anything, however, in doing even a small amount of admin work you get a feel for what it means to consider and care about things on a different level: how accounts are created, how they interact with content and with other accounts, the way accounts leave traces through the content they contribute but also through their metadata, and how the platform is always monitoring this and how as an administrator you have access to that monitoring when the user (person) often does not.

I don't think that most LMS admins (at least as LMSs are currently configured) at small colleges are incentivised to go digging for nuanced details in that monitoring unprompted. I do think that platform owners who have customers willing to pay large sums for

advertising contracts have more of a motivation to analyze such things.

Educational researchers are incentivised to show greater returns on learning outcomes and the drum beat of personalized learning is ever present. But I gotta ask if can we pause for a second and think... is there something to be learned from all this Cambridge Analytica, Facebook, personalization, microtargeting, of advertising story for education? Look at everything that I went through to try to better understand the data trails that I'm leaving behind and I still don't have the answers. Look at the consequences that we are now seeing from Facebook and Cambridge Analytica. The platforms that we use in education for learning are not exempt from this issue.

My mind goes back to all the times I've heard utopian dreams about making a learning system that is like a social media platform. All the times I've seen students who were told to use Facebook itself as a learning tool. So many times I've sat through vendor presentations around learning analytics and then during Q&A asked "where is the student interface – you know, so the student can see all of this for themselves" only to be told that was not a feature. All the times I've brainstormed the "next generation digital learning environment" only to hear someone say "can we build something like Facebook?" or "I use this other system because it is so much like Facebook". I get it. Facebook gives you what you want and it feels good – and oh how powerful learning would be if it felt good. But I'm not sure that is learning is the thing.

In her rebuttal boyd says that one of the outstanding questions that she has after listening to the critics (and thanking them for their input) is how to teach across gaslighting. So, it is here where I will suggest that we have to bring platforms back into the conversation. I'm not sure how we talk about gaslighting in media without looking at how platforms manipulate the frequency and context with which media are presented to us – especially when that frequency and

context is "personalized" and based on intimate knowledge of what makes us like, love, wow, sad, grrrr.

Teaching and learning around this is not about validating the truthfulness of a source or considering bias in the story. Teaching and learning around this is about understanding the how and why of the thing, the platform, that brings you the message. The how and why it is bringing it to you right now. The how and why of the message looking the way that it does. The how and why of a different message that might be coming to someone else at the same time. It is about the medium more than the message.

And if we are going to talk about how platforms can manipulate us through media we need to talk about how platforms can manipulate us and how some will call it learning. Because there is a lot of overlap here and personalization is attractive – no really, I mean it is really really pretty and it makes you want more. I have had people tell me that they want personalization because they want to see advertising for the things that they "need". I tried to make the case that if they really needed it then advertising would not be necessary, but this fell flat.

Personalization in learning and advertising is enabled by platforms. Just as there are deep problems with personalization of advertising, we will find it is multiplied by tens of thousands when we apply it to learning. Utopian views that ignore the problems of platforms and personalization are only going to end up looking like what we are seeing now with Facebook and CA. The thing that I can't shake is this feeling that the platform itself is the thing that we need more people to understand.

What if instead of building platforms that personalized pathways or personalized content we found a way to teach platform's themselves so that students really understood what platforms were capable of collecting, producing, and contextualizing? What if we could find a

way to build platform literacy within our learning systems so that students understood what platforms are capable of doing? Perhaps then when inside of social platforms people would not so easily give away their data and when they did they would have a better understanding of the scope. What if we were really transparent with the data that learning systems have about students and focused on making the student aware of the existence of their data and emphasised their ownership over their data? What if we taught data literacy to the student with their own data? If decades ago we would have focused on student agency and ownership over platforms and analytics I wonder if Cambridge Analytica would have even had a product to sell to political campaigns let alone ever been a big news story.

I'm not saying this would be a fail safe solution – solutions come with their own set of problems – but I think it could be a start. It would mean a change in the interfaces and structures of these systems but it would mean other things too. Changes in the way we make business decisions when choosing systems and changes in the way we design learning would have to be there too. But we have to start thinking and talking about platforms to even get started – because the way they are currently configured has consequences.

## Suggested Citation

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please as long as you properly attribute it.

# Why We Shouldn't Let Economists Play with Education

## Benjamin Doxtdator

### Editor's Note

This was originally posted to [Benjamin Doxtdator's blog](#) on June 29, 2018.

> I believe wholeheartedly in the life of the mind. What I'm cynical about is people. I'm cynical about students. The vast majority are philistines. - Bryan Caplan

Reading Bryan Caplan's *The Case Against Education* has put me in a bad mood.  Imagine 400 pages written by a libertarian economist who's fed up with teaching 'philistines', and who goes to great lengths to 'signal' to us readers that he is *definitely* not one of these philistines. Caplan's a [self-described IQ realist](#) – and as he says, "IQ realists tend to be smart" – who believes that "Contrary to critics, IQ tests are [not culturally biased](#); they fairly measure genuine group differences in intelligence." If Caplan kept his self-aggrandizement and antipathy towards students away from prescriptions for the education system, I'd be less irritated. However, Caplan, a tenured economics professor, wants to *raise* tuition and defund public education in the United States. While he acknowledges the current reality – people need degrees to "get good jobs in the modern economy" – Caplan has a plan to change that:

> ... hefty budget cuts would bring credential inflation to its knees. The less affordable education is, the less students get; the less students get, the less workers need.

Caplan steers clear of outlining what such a transition would look like in the modern day United States, but I'm pretty sure it could drive the plot of a dystopian trilogy. While Caplan postures as a radical, speaking the truth no one else dare utter, he's far from it. Defunding public institutions and shifting the cost directly to individuals has always been a centerpiece of the libertarian script in the U.S. At a minimum, Caplan hopes to "slightly tilt the policy scales by handing budget hawks a little extra intellectual heft."

Caplan presents his economic agenda as a conclusion of his argument about education system's inability to build 'human capital': the benefits of education mostly come from signaling pre-existing differences in ability, rather than from valuable learning that builds capacity for the workforce. "The case for the signaling model is strongest if students learn zero in school—and employers treat graduates like kings." This part of Caplan's argument – his challenge to human capital theory – is a significant departure from the script pushed by the OECD, World Bank, and mainstream economists: education increases our human capital, which increases our earnings (because we are more productive workers), and enriches the nation. I am not here to try to save human capital theory from Caplan. Human capital theory needs to be dismantled precisely because it encourages us to see education – and our lives – purely in economic terms, which primes us for libertarian economists like Caplan to come along and argue that the results don't justify the spending.

Short of defunding the whole system, Caplan imagines a strong tracking program: "we should steer academically uninclined kids toward vocational education when they're 12 or so. Teenage workers

may not discover their 'calling,' but at least they'll get used to gainful employment." In the U.S., tracking and vocational education has historically reinforced middle class and white privilege. In an interview, Gretchen Simpsons challenges Caplan on this point:

> GRETCHEN: We're terribly unequal, but it can get worse. If we listen to you, it will. Shunting so-called weaker students into vocational ed excludes them from high-end jobs—especially kids from lower- and working-class families.
>
> BRYAN: I'm surprised to see a sociologist lose sight of social realities. Think about the vast American underclass. Most don't even finish high school. Does college really strike you as a viable path out of poverty for them?
>
> GRETCHEN: It would be if they enjoyed the same advantages your kids do.

Perhaps it's not surprising to see Caplan's argument surface just as 'the vast American underclass' has managed to [push the door to higher education open a crack](). Elsewhere, Caplan writes about the 'high-IQ misanthropy' that he believes he avoids because he criticizes the outright eugenicist conclusions of many IQ-realists. "If you marinate in your own misanthropy long enough, common decency fades away." However, Caplan's economic agenda and his push for tracking suggests that he has been marinating long enough. In the U.S. school system, Black, Native, & Latinix students are stereotyped as being academically uninclined; IQ realists who believe in 'group differences in intelligence' add a layer of scientific racism to this stereotype. As a libertarian, Caplan of course thinks that private institutions should not be bossed around by the government when it comes to civil rights. Thus, Caplan's argument to keep government

spending out of education also means keeping civil rights legislation out of education.  It would be uncharitable to read Caplan's libertarian argument as being historically naive about the debt owed to people who have been systematically excluded from the best the U.S. education system has to offer.

To establish that school is a waste of time for everyone, Caplan rightly points out some educational malpractice that most people have sat through, but when Caplan's students look bored, it's not his fault. They are philistines. His instructional practice sounds like a caricature of what makes college an alienating place for many: "I go to class and talk to students about my exotic interests: everything from the market for marriage, to the economics of the Mafia, to the self-interested voter hypothesis. At the end of the semester, I test their knowledge." While it is hard to pass through the education system unscathed by such malpractice, there is also real change taking place. For every teacher content to put little thought into instruction, there growing movements of teachers who are actively doing better for their students. Much of this improved pedagogy explicitly centers students and their lived experience in a way that refuses to label them philistines just because their interests may be broader than what colleges have traditionally offered.

It is important to understand Caplan's economic agenda in the same way that he does: as lending heft to an established agenda of the 'budget hawks'. Caplan has worked in the Mercatus Center at George Mason University for nearly two decades, an institution which has been heavily bankrolled by the right-wing Koch brothers since the mid 1980s. In _Dark Money_, Jane Mayer writes that a former professor at George Mason describes Mercatus as "a lobbying group disguised as a disinterested academic program." Ties to this deeper agenda don't make Caplan wrong, but they do help explain why when recognizing the flaws in the education system, Caplan chooses to defund education rather than try to make it better.

# The best education is already free?

Caplan thinks that the 'sheepskin effect', the economic returns that come from sticking it out one more year to get a diploma (which used to be made of sheepskin) instead of dropping out, sets the lower bounds for how much of education is signaling. According to this logic, someone who completes 3 years of an engineering degree is almost as good – has almost as much human capital – as someone who sticks out the fourth year to receive the diploma. Yet, sticking out that extra year to receive the diploma adds more economic benefit in terms of earnings than what we would predict based on the economic return per year of a degree. So, if we know the difference in economic benefit between *almost* completing an engineering degree and then dropping out, in comparison to sticking it out for the diploma, then we can calculate how much is signaling.

The economist [Noah Smith](#) argues that Caplan misunderstands the logic of signaling in his argument since it's not very difficult to complete the last year of college if they have already made it that far, and thus sticking it out for a diploma can't act as a signal because it's not *costly*. According to signaling theory, employers do not have access to the same information that potential workers do about their productivity. Thus, workers who have this information about themselves look for a signal they can send employers to show that they are the real deal. If the signal were too easy, anyone could adopt it. While showing up on time to an interview gives employers information, it's not a signal in the true sense because just about anyone can meet that criteria.

Caplan's arguments in favor of signaling are mostly of interest because they reveal just how out of touch he is with the realities of most students. For example, Caplan argues that if diplomas weren't about signaling and really about human capital for learning, then "The best education in the world is already free. All complaints about elite colleges' impossible admissions and insane tuition are flatly mistaken.

Fact: anyone can study at Princeton for free. While tuition is over $45,000 a year, anyone can show up and start attending classes. No one will stop you. No one will challenge you. No one will make you feel unwelcome. "

This might be true if you present as a middle class white person of about the right age, but I'm not sure that Black or [Native](#) peoples would feel equally empowered to show up in lectures. According to the [*The Atlantic*](#), "it would be challenging for someone to go unnoticed" at Stanford, and Yale would consider such actions trespassing. But to hear Caplan's unrealistic premise out, it's not like the only difference between sitting in on classes and getting a diploma comes down to a credential that signals to future employers. Students might even feel that they aren't getting the full learning experience without conferencing with professors during office hours and receiving feedback on their work. They might need access to library materials, want to participate in sports and clubs, or simply feel like they were cheating to not pay for a lecture when their classmates are.

Caplan uses shallow analogies – funding the educations system is like clinging to an ineffectual fungus cream, subsidizing education for the poor is like subsidizing diamond wedding rings – that should make us question his grasp of the serious consequences of his proposal to defund education and *raise* college tuition. If budget hawks are looking for intellectual heft, they had best look elsewhere.

> Suppose I prove your toenail fungus cream doesn't work. I counsel, 'Stop wasting money on that worthless cream.' Would you demur, 'Not until we find a toenail fungus remedy that works'? No way. Finding a real remedy could be more trouble than it's worth. It might take forever. Continuing to waste money on quackery until a cure comes into your possession is folly. Saying, 'There

must be a cure!' is childish and dogmatic. Maybe your toenails are a lost cause, and you should use the savings for a trip to Miami.

> Imagine the government subsidized wedding rings for the poor. Anyone ready for marriage can go to any jewelry store in the country, knowing—whatever their income—they can buy a diamond ring. The snag: diamond rings are largely a signal of marital commitment. If diamonds were cheap as plastic, other gems would adorn our rings. They're valuable because they're costly. Once the government makes them affordable to all, then, diamond rings signal little or nothing. Doesn't this 'level the playing field'? Only for a heartbeat. ...Thanks to government subsidies, every suitor can afford a wedding ring, but so what? Society is functionally as unequal as ever. Subsidies don't just hurt the poor by fueling credential inflation. They reshape hiring and promotion to the poor's detriment.

But even by Caplan's own lights, education isn't *ineffective*. He acknowledges that literacy and numeracy are essential skills that schools do help build. And unless Caplan is the one person who applies expensive toe fungus cream in public, no one uses it to signal. Our intuitions about toe fungus cream might change if it helped us manage most of the major symptoms, and applying it acted as a 'signal' to get us access to spa we would very much like to go to. However, the analogy is most misleading when it comes to our sense of agency. As [Dr. Lee Skallerup Bassette](#) points out in her brilliant review, "There is literally nothing I can do to fix the fungal cream. There is plenty I can do to fix education as a citizen."

There is something *dangerous* about a commitment to funding

education, but it has nothing to do with reducing it's value by making it widely available. Rather as Noam Chomsky has argued, a commitment to funding education and social services is dangerous because it means promoting the value that we care about each other. If neoliberalism is 'lovelessness as policy' (Naomi Klein), then any challenge in the form of a social commitment to the least well off is the truly radical alternative to our current system. In an argument for publicly funding higher education, Dr. Tressie McMillan Cottom argues, "It reintroduces the concept of public good to higher education discourse—a concept that fifty years of individuation, efficiency fetishes, and a rightward drift in politics have nearly pummeled out of higher education altogether. We no longer have a way to talk about public education as a collective good because even we defenders have adopted the language of competition."

Caplan tries to counter arguments about spending more on education by arguing that the U.S. already spends more than enough, and contrary to popular impressions, more than it does on war. "The air force may not hold bake sales, but total education spending far surpasses total military spending. For the 2010–11 school year, education was 7.5% of the American economy, versus 4.7% for defense. Spending came to over $1.1 trillion on education, and a bit over $700 billion on defense. Schools overtook the military back in 1972 and sharply widened their lead after the Cold War."

The data is a bit more complex than this. In terms of military spending, "the United States now has no official estimate of the cost of its wars" because many of the costs are not included in the already massive baseline budget. We need to add several trillions of dollars – perhaps more than 10 trillion – to really get a true sense of U.S. military spending since FY2001.

What about the spending on education? In terms of federal discretionary spending, the U.S. spends far more money on war than on education: 70 billion for education, 598.5 billion for the military

(again, this is the baseline spending, not the full cost). When people rightly point out that the military doesn't need to hold bake sales, we can imagine what the U.S. education system might look like if a few hundred billion dollars per year were directed towards improving the least well-funded schools or to measures to reduce poverty. If we add in the funding from state and local levels, the expenditure per public school student was $12,509 in [2013-14](). However, that average obscures the vast inequality in the U.S. According to *The Atlantic*,

> Nationally, high-poverty districts spend 15.6 percent less per student than low-poverty districts do, according to [U.S. Department of Education](). Lower spending can irreparably damage a child's future, especially for kids from poor families. A 20 percent increase in per-pupil spending a year for poor children can lead to an additional year of completed education, 25 percent higher earnings, and a 20-percentage point reduction in the incidence of poverty in adulthood, according to a [paper]() from the National Bureau of Economic Research.

# How much of education is signaling and why does it matter?

While there is no doubt that education pays returns to individuals, Caplan's argument centers on calculating the *social return* to funding an education system. From the perspective of human capital economists, education is the path to national prosperity because it creates a more productive workforce. As Caplan summarizes, "Human capital says education increases the size of the pie; signaling says education redistributes the pie." Lest we think that there's not much economic pie to go around, the U.S. GDP has increased nearly 10 fold over the last forty years.

United States of America / Gross domestic product

18.57 trillion USD (2016)

United States of America
18.57 trillion USD

China
11.2 trillion USD

Explore more

Sources include: World Bank

*Feedback*

How does Caplan arrive at his guess that education is 80% signaling? Caplan compares two rates of return: the "effect of a year of personal education on personal income" with the "effect of a year of national education on national income." If education has a high selfish benefit for the individuals who can use it to signal their way to more income, but little social benefit, then Caplan argues that we should defund the system.

> At the global level, a typical year of personal education seems to raise personal income by 8–12%. A typical year of national education, in contrast, seems to raise national income by only 1–3%. While these ranges are compatible with a wide range of human capital signaling splits, signaling consistently overshadows human capital. If King Solomon had to announce a precise human capital/signaling split, 20/80 again sounds about right.

Caplan's calculation seems overly blunt. A more fine-grained analysis by [Baris Kaymak](#) puts the proportion of signaling much lower.

> Estimation results show that the signaling role of education is equal to 22% of the return to education estimated by OLS for workers with low ability. For workers of higher ability most of the uncertainty is resolved prior to employment, leaving a very small role for signaling, 1% of the OLS return, despite the slower employer learning on the job.

# Human Capital

A lot of neoliberal curses come home to roost in Caplan's critique of human capital theory. Whenever well-intentioned progressives use human capital discourse to argue for 'future proofing' ([Keri Facer](#)) students, they need to also consider what their argument implies if some of their core assumptions don't turn out to be true. Despite whatever Thomas Friedman says, we all know there is something wrong with the idea that income and compensation only reflect the skills and ability that we bring to a job. An argument against human capital theory is not an argument against education, but an argument about reducing the value of education to economic calculations. In [Rachel Cohen's](#) review of Caplan's book, she writes:

> Education is still crucial for building citizenship, for maintaining democratic polities, for fostering human development. But it would be better if our government stopped looking at schools as *the* ticket to economic security, and stopped acting as though our ability to afford health insurance, housing, and food should depend on whether one is capable of obtaining a college degree.

In his analysis of rising inequality, Thomas Piketty points out the rising share of income – between 45% and 50% – that goes to the top decile (10%) of labour. The CEO of *Under Armor* makes in less than one day what the median worker in their company makes in a year ($10,686). Does the CEO of *Under Armor* really have [378 times more](#) human capital than the median worker? Piketty rejects this explanation:

> One possible explanation of this is that the skills and productivity of these top managers rose suddenly in relation to those of other workers. Another explanation, which to me seems more plausible and turns out to be much more consistent with the evidence, is that these top managers by and large have the power to set their own remuneration, in some cases without limit and in many cases without any clear relation to their individual productivity, which in any case is very difficult to estimate in a large organization. (p. 24)

How would human capital theory put a value on vastly underpaid care labor that is essential to the functioning of the economy, or all of the *unpaid* work without which society would not function? In her conceptual critique of Becker's human capital theory, [Antonia Kupfer](#) argues that schools do not simply produce human capital in a linear relation because unpaid work is "a precondition of education taking place." Most of the work that goes into getting a child ready to attend school and to support them throughout their educational careers is unpaid and not counted as productive uses of human capital: from giving birth, to feeding children, washing their clothes, and getting them to school, the feminized work that readies children for education is truly massive. Kupfer asks, "How could 'productivity' be measured in the increasing service sector such as care of elderly, counseling or management? In fact, productivity is highly culturally conceptualized

and impacted."

According to Kupfer, the human capital "concept abolishes the difference between labour and capital by conceptualizing all people as capitalists through their capitalized work force." The idea of human capital seems to democratize potential, when in fact financial capital is increasingly concentrated in the hands of a few people. Piketty outright rejects the idea of human capital because "human capital cannot be owned by another person or traded on a market (not permanently, at any rate)… In slave societies, of course, this is obviously not true." (p. 46) If human capital theory was at some point during the mid 20th century kept in balance by a growing international commitment to human rights, [Maren Elfert](#) argues that it has "come out of equilibrium when neoliberal conservative governments came into power in the late 1970s which put the human capital approach at the service of an excessive market ideology, under which profit considerations dominated."

Consider the power relations between "the ones who pay" and put forth capital in the form of money and "the ones who are paid" who put forth 'human capital' in the form of skills, energy, and smiles. Capitalists are able to exert far more influence on the structure of labour conditions by replacing workers with machines, which serves to de-skill the labour force, while human capital is not able to wield a reciprocal power against the capitalists. [Dr. Tressie McMillan Cottom](#) argues that "we have a labor market where the social contract between workers and the work on which college has previously relied has fundamentally changed and makes more workers vulnerable." *The ones who are paid* face ceaseless precarity & pressure to upgrade their skills and manage their self-presentation. In large part, this pressure comes from the fact that journalists like Thomas Friedman act as a [mouthpiece for Capital](#) by turning the musings of the CEOs he lunches with into prescriptions for national economic success.

The consulting firm [McKinsey](#), using the kinds of methods developed

by the pre-eminent human capital economist [Eric Hanushek](#) to tie the GDP to levels of education, conceptualizes the so-called 'achievement gap' in purely economic terms. Social injustice becomes a drag on the GDP:

> If the United States had in recent years closed the gap between its educational achievement levels and those of better-performing nations such as Finland and Korea, GDP in 2008 could have been $1.3 trillion to $2.3 trillion higher. This represents 9 to 16 percent of GDP.

> If the gap between black and Latino student performance and white student performance had been similarly narrowed, GDP in 2008 would have been between $310 billion and $525 billion higher, or 2 to 4 percent of GDP. The magnitude of this impact will rise in the years ahead as demographic shifts result in blacks and Latinos becoming a larger proportion of the population and workforce.

According to the economist [Ha-Joon Chang](#), McKinsey's logic doesn't fit the facts: "there is very little evidence to support the view that increased education leads to higher economic growth." "What really matters in the determination of national prosperity is not the educational levels of individuals but the nation's ability to organize individuals into enterprises with high productivity."[7]Chang references '[Where has all the education gone?](#)'

> In 1960, Taiwan had a literacy rate of only 54 per cent, while the Philippines' was 72 per cent. Despite its lower education level, Taiwan has since then notched up one of the best economic growth performances in human history, while the Philippines has done rather poorly. In

> 1960, the Philippines had almost double the per capita income of Taiwan ($200 vs. $122), but today Taiwan's per capita income is around ten times that of the Philippines ($18,000 vs. $1,800). …

> The East Asian economies did not have unusually high educational achievement at the start of their economic miracles, while countries like the Philippines and Argentina did very poorly despite having significantly better-educated populations. At the other end of the spectrum, the experience of Sub- Saharan Africa also shows that investing more in education is no guarantee of better economic performance. Between 1980 and 2004, literacy rates in Sub-Saharan African countries rose quite substantially from 40 per cent to 61 per cent. Despite such rises, per capita income in the region actually fell by 0.3 per cent per year during this period. If education is so important for economic development, as most of us believe, something like this should not happen.

Having an abundance of intelligent, mechanically skilled, & literate people does not mean that there will be 'productive' work for them. Nor does it mean that their contributions will get counted as being 'productive' in the economic sense. While employers might complain they can't find skilled employees, the 'skills gap' is largely a myth. Unfortunately, many who see themselves as advocates for a progressive education system that frees itself from standardized testing essentially make the same argument as Caplan: U.S. schools don't teach any useful skills, and hence education should be vocationalized. In one recent example, Ted Dintersmith argues that "our best path to leveling society's playing field is to make the high school diploma meaningful. Let students take on real-work challenges, gaining the ability to contribute effectively to an organization or

community. Ensure K-12 graduates have hirable skills."

Such progressive advocates are largely ignorant of the [two different strands of progressive education](), one which argued for adapting kids to the economic order, and one which had more radical leanings. In *The New Republic* ([1915, republished in *Curriculum Inquiry* in 1977]()), Dewey put his criticism this way:

> Apart from light on such specific questions, I am regretfully forced to the conclusion that the difference between us is not so much narrowly educational as it is profoundly political and social. The kind of vocational education in which I am interested is not one which will 'adapt' workers to the existing industrial regime; I am not sufficiently in love with the regime for that. It seems to me that the business of all who would not be educational time-servers is to resist every move in this direction, and to strive for a kind of vocational education which will first alter the existing industrial regime, and ultimately transform it. (p. 38-9)

Like so much of our lives under late capitalism, education has been subjected to an "excessive market ideology" for at least the last 50 years. Under human capital theory, "the role of the state could be *limited* to improving educational standards, expanding access to higher education, and creating flexible job markets that reward talent, ambition, and enterprise."[8] Brown, Lauder, and Ashton, *The Global Auction.* If we want to get to the root causes of why the education system is broken and what can be done to fix it, we need to free ourselves from the ideology that makes Caplan's calculations all but inevitable.

## Suggested Citation

*Doxtdator, B. (2019). Why We Shouldn't Let Economists Play with Education. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/economists*

# Connectivity as Poverty

## Jim Groom

## Editor's Note

This was originally posted to [Jim Groom's blog](https://edtechbooks.org/-fHy) on April 5, 2009.



Image credit: Mike Rohde's ["SXSWi 2009: Sketchnotes: Connectivity = Poverty" \[https://edtechbooks.org/-nMA\]](https://edtechbooks.org/-nMA)

I have to say that it's a crime that the audio of Bruce Sterling's rant at

this year's SXSW Interactive hasn't been posted online yet. it was one of the few highlights to an otherwise lackluster conference. SXSW was one of the most anti-intellectual conferences I have ever been to—any mentions of theory, or big scary words like "postmodernism," were immediately scorned upon or shot down. Heather Gold's moderation of the ["Everything I Needed to Know about the Web I Learned from Feminism" [https://edtechbooks.org/-tem]](https://edtechbooks.org/-tem) was an excellent example of pitching to the least common denominator while shamelessly promoting herself. God forbid she let danah boyd say a big word!

And I have to say it was absurd how everyone and their mother was fawning over Twitter as if it came out yesterday (it's almost three years old and preparing to join the Google family already, people). Seemed to me like people were walking around mindlessly celebrating a rather uninspired landscape of technology and thought at the conference more generally (and the EDUPUNK panel I was part of must certainly be included in this characterization of uninspired). I'd heard a lot of good things about this conference, but I guess I missed the boat on this one cause this year's event was more of the same bullshit online branding and marketing speak–just a bit more impressively masked as either mindless tech market Utopianism or self-help 2.0.

Yet, to be fair it wasn't all bad, there was at least one highlight for me. Bruce Sterling's rant was right on. I was hoping to listen to it again before I talked about it in more detail. In fact, I'll have to do that cause I can only recall bits and pieces, but there was a point in his stream of thought that really impressed me (well, besides his discussion of the future of publishing as epitomized by survivalist bookstores like [Brave New Books [https://edtechbooks.org/-MGT]](https://edtechbooks.org/-MGT)—which I loved). He went off about how much we had miscalculated the digital divide theories of the 90s that were to define the digital world of haves and have-nots by whether they were or weren't connected. It seemed logical to assume that the impoverished would not be connected, whereas the rich would be decadently

consuming all the bandwidth.

Well, as he pointed out, it didn't quite work out that way, connectivity became cheap with cellphones, and he comically noted that "poor folk love their cellphones!" What's happening is that this increased dependence upon connectivity, rather than being some kind of indicator of privilege, is actually a sign of our increased impoverishment. The fact is that the wealthy are those who can afford not to be connected, not to be pimping their "online brand" so shamelessly, not twittering their asses off at all hours of the day for a quick networking fix. The impoverishment of networks through connectivity!—it was such a radical re-thinking of this idea of connectivity as the new "social capital" (when did Pierre Bourdieu [https://edtechbooks.org/-ndU] enter the Web 2.0 vocabulary?–do these dickheads know a 'postmodern' social theorist infused that term with its contemporary meaning?). Connectivity as poverty, trippy, that might throw a wrench into the Connectivism theory though :) It kinda makes sense to my poor ass cause that's how I'm living—and this is all just a cheap thrill to avoid thinking about the inevitable.

## Suggested Citation

*Groom, J. (2019). Connectivity as Poverty. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/connectivity_as_poverty*

# Reproducing Marginality?

## Maha Bali

### Editor's Note

This was originally posted to Maha Bali's blog [https://edtechbooks.org/-DC] on September 4, 2016.

> marginality [is] much more than a site of deprivation; in fact I was saying just the opposite, that it is also the site of radical possibility, a space of resistance . It was this marginality that I was naming as a central location for the production of a counter-hegemonic discourse that is not just found in words but in habits of being and the way one lives. As such, I **was not speaking of a marginality one wishes to lose – to give up or surrender as part of moving into the center – but rather of a site one stays in, clings to even, because it nourishes one's capacity to resist.** It offers to one the possibility of radical perspective from which to see and create, to imagine alternatives, new worlds. (p. 149-150, emphasis mine)

> – bell hooks [https://edtechbooks.org/-EGW] cited on the Marginal Syllabus [http://marginalsyllab.us/] from her book *Yearning: Race, Gender, and Cultural Politics*

[(1990) \[https://edtechbooks.org/-nNJ\]](https://edtechbooks.org/-nNJ)

I am always struggling with my centredness and my marginality, navigating my intersectionality. It's not navel-gazing specifically, as much as it is an intentional effort to remain aware of my marginality as a way to, I think, not perpetuate marginalizing others.If that makes sense. It nourishes my capacity to resist, as bell hooks says above.

Last month at [Digital Pedagogy Lab Institute UMW \[https://edtechbooks.org/-HfQ\]](https://edtechbooks.org/-HfQ), I was in a position of power, where I could make choices of how to include others, especially virtually. [This reflection by virtual participant Sherri Spelic \[https://edtechbooks.org/-GWm\]](https://edtechbooks.org/-GWm) tells me my efforts, with the inspiration of seriously reflective, kind and active collaborators (including Sherri herself, and of course Autumm, Kate and Paul) was working towards something. Sherri writes:

> Inclusion is a construction project. Inclusion must be engineered. It is unlikely to "happen" on its own. Rather, **those who hold the power of invitation must also consciously create the conditions for sincere engagement, where underrepresented voices receive necessary air time, where those contributing the necessary "diversity" are part of the planning process.** Otherwise we recreate the very systems of habit we are seeking to avoid: the unintentional silencing of our "included" colleagues.
>
> (emphasis mine)

What Sherri highlights there is that it is insufficient to just open up an invitation. It is insufficient that once invited, we just leave guests to their own devices and assume the "free market of air time" means we

are giving up our power as facilitators. If we do so, if we just say "anyone is welcome" and assume everyone *feels* equally welcome – we aren't doing our job. It is insufficient to, once we are in a room together, to say, "anyone can speak", and assume everyone *feels* equally listened to. I am flawed. I will forget to invite someone. I will occasionally talk too much, ignore someone, feel too tired to listen properly, get angry at someone who speaks slowly or too quietly or too much or too little. But you know what? I surround myself with people who can call me out on this gently and constructively (I'm looking at you, Kate and Paul – but also so many others like Sherri and many more). And I am always trying to remain conscious of how we practice inclusion (something Sherri mentions in her article as well).

It is insufficient to open up an invitation and then proceed to "tell" others what to do. I appreciate and applaud Jesse and Sean for giving me pretty much complete freedom over how to run that second workshop at DPLI. I had the choice of whom to co-facilitate with, and I chose Paul Prinsloo onsite and Kate Bowles virtually (here's our pre-writeup on it [https://edtechbooks.org/-Qfn], written across three timezones – US/Egypt/Australia). The three of us pretty much had free reign on what to do with that workshop… and as an experiment, it could have been an epic fail, but instead, it felt like an epic opening of possibilities. We wrote:

> …for most of us *not* in the US (or the UK), this [edtech] vision has often signalled top-down, US-to-world, Anglo-oriented, decontextualized, culturally irrelevant, infrastructure-insensitive, and timezone-ignorant aspirations, even when the invitation for us to join in may be well-intentioned.
>
> …
>
> We want to rethink this one-way flow of benefits, and

argue instead that all learning is enriched when we have the opportunity to hear from voices markedly different from our own. We want to suggest that when US culture and educational systems are the default for MOOCs and similar platforms, international voices are exoticized, marginalized and silenced at once.

Afterwards, [Kate wrote [https://edtechbooks.org/-qWy]](https://edtechbooks.org/-qWy) (building on what Chris Gilliard had said in the post-workshop hallway conversation):

> ...if we want Americans to stop thinking of the rest of the world as the exotic, the underserved market, **being present is the place to begin**. We need to make time to hear from each other in workshops like this, at a scale that we can work with. We need to **promote listening well as an activist practice**. And as educators we have to lead this process, and centre it in our teaching.

Emphasis mine. Being present is just the beginning. Promoting active listening is essential. And yet still not the end of that story.

**Points to Ponder**

So I just wanted to say that, while I embrace my marginality as a site of resistance (using bell hooks' words), as I intentionally place myself in this ocean of others with complex power dynamics, I see (on an almost daily basis) the ways in which marginality can be reproduced by things "we"* do. Here are some ways people in power can reproduce the marginality of others (ways we should all work to avoid):

- **Tokenizing.** Bringing in ONE person of color, ONE

international person, ONE woman into a sea of white/Western/male others. This is why when Alec Couros asked on Twitter whom on Twitter helps us think critically, [my first tweet back [https://edtechbooks.org/-QbB]](https://edtechbooks.org/-QbB) was intentionally completely absent of white American men. It came easily, that first tweet. To think of 140 characters' worth of people of color who inspire me? Easy! How easy is it for you? (*I then wrote something like 5 more lists, with some white men on them, because, really, some white men are quite cool people, and it's not their fault they're white men and all*).

- **Assuming Difference. Assuming Similarity.** This may sound confusing but it isn't. I guess the answer is… don't assume? Sometimes in our sensitivity, we assume difference in order to be respectful. It can be insulting. Sometimes in our attempt to be inclusive, we assume similarity; it can be stifling. Just like every individual in the majority is different, every individual in each minority is different, and therefore they are *differently* similar/different to you. Take two Western-educated Egyptians and they will have different situations and life conditions that empower/disempower them. You can't know *a priori* what that's going to be like.
- **Unintentional Forgetting.** No. Of course it's unintentional. But that's the point, we need to *intentionally not forget.* Inclusion isn't a side effect. It needs to be an intentional choice, and with it comes responsibility
- **Not Listening to the Marginal.** Bringing in someone marginal, and then not listening to them properly is almost worse than not bringing them at all. We need to be aware that listening to the marginal takes effort. They are already going outside of their own discourse of comfort in order to be understood by the more powerful. Listening to the marginal is *hard.* The powerful need to make an effort to make room, but also to listen closely.
- **Silencing the Marginal.** This is such a big deal. To be aware of how our actions (subtle and overt) could silence a marginal

person.

*You noticed I say "we" a lot here, right? Because in some contexts, I am in power. I am the teacher. Even if there is a class of men, I'm still their teacher and I have some power in that context. In a Virtually Connecting session I am virtual but I often have the power of invitation. I can choose to keep the call open to anyone. Or I can choose to target certain people and not others, to email them private invitations. I can choose to call on someone or not (gently or not). For Digital Pedagogy Lab, I did a lot of that kind of backchanneling, sending personal invitations in order to ensure sufficient diversity of voices. What's "sufficient" you say? I don't know, but it was noticeable.

In open online spaces, opening doors is not enough.

In open online spaces, an open door means easy exit just as it means easy entry.

In open online spaces, we are not there on equal footing.

In open online spaces, we are not equally fragile.

It is everyone's responsibility to listen and care and support marginal voices. Whether or not they wish to speak. Whether or not they wish to be present. Whether or not they like what we do.

It is everyone's responsibility to recognize their own privilege and to use it with purpose.

Bas keda (Arabic for: "that's it")

## Suggested Citation

*Bali, M. (2019). Reproducing Marginality? In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/reproducing_marginality*

# Inclusion Again

## Sherri Spelic

### Editor's Note

This was originally posted to [Sherri Spelic's blog
\[https://edtechbooks.org/-bAT\]](https://edtechbooks.org/-bAT) on February 13, 2018.



image via Pixabay.com CC0

I'm thinking about inclusion again. Now that *diversity* has been
shunted as the desirable term to describe the aspiration of drawing
people together who reflect the variety of identities and backgrounds
which more closely represent society at large, some ([myself included
\[https://edtechbooks.org/-GWm\]](https://edtechbooks.org/-GWm)) have said what we really need, seek
and should be working towards is *inclusion*. Opening doors, offering
invitations, seats at tables, a mic on the stage, a space on the panel –
centering those in prominent public forums from whom we have
traditionally, historically heard less. OK, I can get with that.

I read a post [https://edtechbooks.org/-wgd] in response to the #EngageMOOC: Engagement in a Time of Polarization [https://edtechbooks.org/-vpv] which is happening for two weeks now in the middle of February.  Kay Oddone argues that we can in our own small and sometimes larger circles, insure that marginalized folks who are at the table experience true inclusion, rather than serving as placeholders for someone's good intentions.



The rest of the above quote speaks even more to me and my experience: " ...comfortable enough to join in with the conversation that is happening at that table. *And knowing, when the talking stops, and the faces turn expectedly, how to share one's opinion in a way that makes it able to be heard*." (emphasis mine) Those expectant

faces, yes. How they turn to you as the one brown face in the room (or the only queer, native, or poor person), hoping that you will grant them both grace and an easy way out of whatever discomfort may have arisen in the conversation.

Putting it succinctly:

**Lindsay Kruse**
@lindskruse

"There is a difference between inclusion and being welcome. I can be included without being welcome." Thank you @DenaSimmons for powerful talk today!

♡ 17   11:05 PM - Feb 12, 2018

See Lindsay Kruse's other Tweets

Allow me to broadly generalize: It happens all the time.

Kay Oddone's post reminded me of what is at stake for marginalized folks who come to the table:

**Sherri Spelic** @edifiedlistener · Feb 13, 2018

"But it's not just taking a seat. It's feeling confident and competent and comfortable enough to join in with the conversation that is happening at that table." Thinking about all the ways we make it tough for marginalized folks to dare speak their truth. #engageMOOC

**Sherri Spelic**
@edifiedlistener

Think of all it requires of a person to feel "confident and competent" in a conversation to which they were perhaps invited but not expected to speak or contribute meaningfully. #EngageMOOC

♡ 4   12:56 AM - Feb 13, 2018

   ℹ

   See Sherri Spelic's other Tweets       ›

**Sherri Spelic** @edifiedlistener · Feb 13, 2018

Replying to @edifiedlistener

Think of all it requires of a person to feel "confident and competent" in a conversation to which they were perhaps invited but not expected to speak or contribute meaningfully. #EngageMOOC

**Sherri Spelic**
@edifiedlistener

When @KayOddone suggests that we have a real power to change the dynamics of inclusion at whatever table we are seated, she is right. And it may require going against the unspoken, yet dominant grain. #engageMOOC

♡ 5   12:56 AM - Feb 13, 2018

&  See Sherri Spelic's other Tweets

**Sherri Spelic** @edifiedlistener · Feb 13, 2018

Replying to @edifiedlistener

When @KayOddone suggests that we have a real power to change the dynamics of inclusion at whatever table we are seated, she is right. And it may require going against the unspoken, yet dominant grain. #engageMOOC

**Sherri Spelic**
@edifiedlistener

That constitutes engagement. That constitutes changing the script. Yielding the floor to those who have not yet spoken. Listening carefully to what is then said and thinking first before responding. That's engagement. #engageMOOC

♡ 6   12:56 AM - Feb 13, 2018

⊗ See Sherri Spelic's other Tweets ❯

We have the power to counter the ticked box form of diversity, we can and need to practice real inclusion wherever we are. For us as educators, we can begin by incorporating more student voice and choice into our practices. We can listen to our young people when they tell us what is working for them and what's not. We don't *give* them voice; we learn to ask and listen and act on what we learn as a result. That's what inclusion looks like. It's responsive, open, ready to learn.

We tend to think of engagement in terms of output, as external actions that are readily observable, measurable even in some cases: speeches, reports, demonstrations, coursework. I want us to also recognize the power of staying quiet when someone else finally finds the courage to speak; for stepping aside when a leadership post comes open and nominating the better candidate who might easily be overlooked. Those are forms of behind-the-scenes engagement we

need more of.

[Maha Bali writes \[https://edtechbooks.org/-xUqo\]](https://edtechbooks.org/-xUqo) compellingly about the dilemma of reproducing marginalization even in our attempts to be inclusive:

> In open online spaces, opening doors is not enough.
>
> In open online spaces, an open door means easy exit just as it means easy entry.
>
> In open online spaces, we are not there on equal footing.
>
> In open online spaces, we are not equally fragile.
>
> It is everyone's responsibility to listen and care and support marginal voices. Whether or not they wish to speak. Whether or not they wish to be present. Whether or not they like what we do.
>
> It is everyone's responsibility to recognize their own privilege and to use it with purpose.

I know, I know, we're working on it. Sometimes it pays off to think small. Think next door, down the hall, at the next meeting. Act large in small spaces. Notice who's speaking and who isn't. Practice not knowing and being curious. Be kind. Welcome warmly and mean it.

We can do all those things and still run a meeting on schedule. Let's try. It's worth the effort.

## Suggested Citation

*Spelic, S. (2019). Inclusion Again. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/inclusion_again*

# OER, Equity, and Implicit Creative Redlining

## Rajiv Jhangiani

### Editor's Note

This was originally posted to [Rajiv Jhangiani's blog](https://edtechbooks.org/-TnN) [https://edtechbooks.org/-TnN] on April 6, 2018.

The open education movement wants to be a force for equity. The argument is straightforward and powerful: Widen access to educational resources and those who disproportionately suffer at the hands of the exploitative business models of commercial publishers will disproportionately benefit, in both economic and educational terms. As someone who has personally benefited from generous and life-changing sponsorship of access to a high quality education, this argument is not simply theoretical for me. It is my lived experience. This is why I will never stop pushing for nor understate the importance of widening access to education. But if the open education movement holds the goal of equity as dearly as I believe we do, we need to ensure that we do not restrict our definition of equity to only those who will reuse the resources. For if we ignore the question of equity as it applied to educators who create, revise, and remix OER, we risk perpetrating harm with the best of intentions.

In my capacity as an administrator supporting open education at a public post-secondary institution with an open access mandate, I am vehement about the need to adequately support those of my

colleagues who wish to engage in open educational practices. And by support, I mean through sufficient time, adequate funding, required training, and earned recognition. While this position may be construed as pragmatic or instrumental, for me it strikes at the heart of addressing equity. For if the movement relies on voluntary academic labour or severely under-compensated academic labour to create, peer-review, and contextualize OER, we are in effect perpetrating an implicit form of redlining*, one that reserves the capacity to create or adapt OER for those who already enjoy positions of privilege, such as the tenured or those who do not need the income. In such an eventuality, despite the best of intentions, the ideologies (including biases and prejudices) associated with those positions of privilege become reflected and over-represented in the available OER. And while I often describe how powerful it can be to exercise the permission to revise OER by simply changing the names that appear within a text's examples so that they reflect the diversity of the classroom, that we have to do this at all is a subtle symptom of the types of exclusivity that can exist in OER—and something we need to work against.

Make no mistake—in highlighting this problem, I am not pitting the democratization of knowledge creation against equitable access to education. Rather, I am highlighting that access to knowledge creation ought to be equitable as well. As has been noted before, diversity is a fact but inclusion is a choice. So this is a call for open education projects, funders, and universities to become aware of the inadvertent implications of inadequately supporting OER creators and adaptors as well as to be attentive to who are given the opportunity and support to create and adapt OER. Supporting and nurturing stewards at a grassroots level and supporting the building of community across such stewards helps make open education both more sustainable and more equitable.

One of the things I love about the open education movement is that its values are those that educators largely already hold. This is why you

find that even the decision of an academic department to standardize an assigned commercial textbook is usually driven by a desire to negotiate a lower cost for students and/or to avoid having students who need to re-take a course having to buy a second book. This also means that the seeds for a grassroots community have already been planted. And while the image of grass growing out through cracks in concrete may be used to signify resilience and drive, I would much rather ensure that we deliberately cultivate more fertile ground.

*For related concepts see Chris Gilliard's writing on digital redlining [https://edtechbooks.org/-VqZ] and Safiya Noble's writing on technological redlining [https://edtechbooks.org/-wjh]

## Suggested Citation

*Jhangiani, R. (2019). OER, Equity, and Implicit Creative Redlining. In R. Kimmons (Ed.), EdTech in the Wild. EdTech Books. Retrieved from https://edtechbooks.org/wild/implicit_redlining*

# For Now, Our Own

## Kate Bowles

### Editor's Note

This was originally posted to [Kate Bowles's blog [https://edtechbooks.org/-uPo]](https://edtechbooks.org/-uPo) on September 6, 2016.

> In open online spaces, opening doors is not enough.
>
> Maha Bali, '[Reproducing marginality [https://edtechbooks.org/-drP]](https://edtechbooks.org/-drP),' September 2016

> We so easily forget our bodies.
>
> Mary Freer, '[This body goes to work [https://edtechbooks.org/-qHn]](https://edtechbooks.org/-qHn),' August 2016

Over the last week I've been skirting a significant conversation begun by Maha Bali ("[I don't own my domain, I rent it [https://edtechbooks.org/-voM]](https://edtechbooks.org/-voM)") and continued by Audrey Watters ("[A domain of ones own in a post-ownership society [https://edtechbooks.org/-Cpw]](https://edtechbooks.org/-Cpw)"). Never far away is Andrew Rikard's Edsurge post "[Do I own my domain if you grade it [https://edtechbooks.org/-CSL]](https://edtechbooks.org/-CSL)?"

The question for me is how the idea of "own" works as a metaphor. It's complicated enough as it is: my own, to own, owned, owned [https://edtechbooks.org/-EFr]. We own our mistakes, we own our work, we own our politics, and none of this is quite like the way we own our homes—which for most of our working lives means some version of renting, in a funhouse world in which access to credit, like debt itself, has become an asset.

Conceptually, home ownership makes an ironic pass at all this, promising dominion over property that is actually quite a temporary thing in geohistorical time. Home ownership offers a misleading sense of permanence in relation to our provisional space in the world. A home that's owned is always haunted by both its past and future. Far from sheltering us against the churn of things, it's a daily reminder that we're not here for long.

And inside our own homes where we might think of ourselves as free to do as we please, we remain legal subjects, subordinated to the local laws or ways of being to which our citizenship is bent. We house our human bodies, our social selves, our presentability. Our houses face the street; and behind the scenes, who knows what.

As legal subjects, we have modest rights to allow our homes to fall into disrepair, although these are limited by heritage considerations, public health and safety and so on. Zoning laws fence us in. Meanwhile there are all the social obligations of habitation to keep up: from the pragmatics of rent, rates, taxes, body corporate fees and utilities, to the labour of being a considerate neighbour, maintaining a yard, planting a tree that will outlive you. All this takes some skill, some literacy. No one really remembers how we learned to pay bills, or manage our garbage, but we do.

The implication that ownership of things is the beginning of practice of civic participation is something we both assume and overlook when we use ownership as a tech metaphor, without thinking ahead to use.

It's as if the ownership of a domain becomes an end in itself. Domain names are fetishised, like novelty license plates. They're collectable and tradable, despite having no inherent functionality except to indicate an empty lot where something might be built, or a lot where something has been abandoned, that might be recaptured at a price for a new project. But achieving naming rights in the use of a domain doesn't come with the skills you need to know what to do next, how to build what people will find if they search at those coordinates.

This is where I've come to in the conversation about whether personal domain ownership is a useful or socially equitable project for higher education. Maha's post set off a deep and thoughtful exchange among some of higher education's most experienced and engaged champions of student and personal blogging. Really, go read through those comments, they're a model for the conversations we should have when we think about bringing tech innovation as a requirement into the lives of others.

As companion pieces, I read Maha's further post on [how things get paid for in Egypt \[https://edtechbooks.org/-ZVu\]](https://edtechbooks.org/-ZVu); Audrey' post on [the impact of student debt on credit score \[https://edtechbooks.org/-jRj\]](https://edtechbooks.org/-jRj); and two articles by Tressie McMillan Cottom, on [the $20 principle \[https://edtechbooks.org/-SSF\]](https://edtechbooks.org/-SSF) and on [preferential student recruitment as reparations for slavery \[https://edtechbooks.org/-USS\]](https://edtechbooks.org/-USS) (spoiler: it's not reparations.) Then I fell into [this exchange \[https://edtechbooks.org/-KNh\]](https://edtechbooks.org/-KNh) on Twitter about the critical importance of making small barriers to educational participation visible, kicked off by Robin deRosa reminding her students  to bring a credit card and working laptop to class.

To lower these barriers while keeping them visible, which is very much Robin's project, we have to get much better at noticing them. We need to be scrupulous in attending to the assumptions that lie behind our metaphors, our proposals, our sense of being agents for change largely on the side of the good. We are teaching people with

different life experience than our own–different educational capital, cultural capital, actual capital. I teach students for whom a missed shift at work may mean a lost job in a sinkhole local economy; a required online textbook with a digital key may prevent joining the class at all; a credit card may already be maxed or cut up; a laptop may be both so cheap and so broken that it's hard to see through the cracked screen. All of these are actual barriers to participation that actual students have discussed with me in the last four weeks.

And it's easy to say that we have policies or options for students who can't do what we expect, and measures to show that they are in a tiny minority; but in reality we rarely check what disadvantage and/or risk comes with our Plan B. We don't think nearly enough about students for whom the language of digital making is unfamiliar, or the demands of content generation are disempowering and demoralising. We don't adequately accommodate the students who have poor internet access, exhausted data plans, or have to do everything through a second hand phone.

So when we say that it's a good thing for students to own their domain, we need to ask what we mean by owning, and what we think home might be as a metaphor–especially given that the metaphor for our times is not home ownership, or even post-ownership; it's homelessness.

It's the global political scale of this homelessness, the mobility of whole populations for whom the modern projects of both nation and property have entirely fallen apart, that presses an anxiety of ownership on the rest of us. Having a home is more than a matter of shelter, it's the presentation of a certain kind of survivorship, assessed in cultural competence, the assertion of literacy, the visible privilege of know-how. And like home ownership, domain ownership is the practice of insiders, survivors, using the skills and languages that flex their cultural power by asking to be taken entirely for granted,

not just in terms of what appears on the screen but increasingly in terms of the coding that lies beneath it.



[https://edtechbooks.org/-SJk]This weekend I walked past a house that I like. It's in a gentrifying Sydney neighbourhood, defying the trend. It's been taken over by an unpruned wisteria draped over its rotting balcony; curtains are never pulled back from its verandah doors. Who knows what's inside? Who lets their property, in Sydney of all places, fall into this unproductive, vegetative state? But now there's a notice stapled to the fence. Development is planned. The house will be demolished and replaced. There will be a plunge pool. This abandoned property will retake its place in the proper, and properly owned will become an asset to the whole neighbourhood in house price uplift.

Ownership can never be less of a public spectacle than this. Its whole point is to be knowable by others, to turn exclusivity of access and control towards a model of social order and a vision of security that

will miraculously extend to all, including those who are most obviously excluded. Owning and gentrifying are inseparable economic forces. So when we talk about securing a domain of one's own, we're also talking about this privatising vision of the proper—and we're at risk of missing the fragile, important lesson that just as with homes, the security of ownership is always measured against the temporality of the bodies walking past.

**Note**: This blog is parked with [Reclaim Hosting, \[https://reclaimhosting.com\]](https://reclaimhosting.com) for whom my admiration is unreserved. None of the questions I'm asking here are a criticism of their model.

## Suggested Citation

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# Concluding Thoughts



I am deeply grateful for all of the blog authors who either released their content under an open license or gave me permission to republish their work in this volume. I feel that I have been greatly enriched by reading their words and by grappling with the very important issues that they have sought to bring to light via their blogs.

I'll admit that when I started the process of collecting blog posts for this book, I was rather naive on several fronts.

In particular, I assumed that practically all EdTech bloggers would release their posts under a Creative Commons or similar license. Yet, many did not. Interestingly, I found that most of those whom I had selected for inclusion that did not rely upon a CC license had written posts that I wanted to include in the Equity & Power [https://edtechbooks.org/-HoN] section.

I don't think this was a coincidence.

Rather, it forced me to realize that even the process of writing a blog

post and sharing it with the world can be an act of vulnerability in many ways — economic, emotional, professional, etc. — and that EdTech scholars must grapple with these vulnerabilities in determining what and how to share ([as Audrey Watters explores in this great blog post that I was not able to include [https://edtechbooks.org/-pdL]](https://edtechbooks.org/-pdL)).

Though the history of EdTech may be at least somewhat interesting as an abstraction when viewed as a never-ending series of gadgets and gizmos, its histories of innovation, disruption, openness, sharing, identity-negotiation, participation, equity, and power are perhaps best seen through the lives of its scholars and how they have historically negotiated (and continue to negotiate) the affordances and demands of emerging technologies within their own sociopolitical and interpersonal spheres.

Thus, I hope that if nothing else, this volume has collected the voices of some of these scholars into an interwoven tapestry of experience, wherein we can each gain some sense of the hopes, fears, challenges, and triumphs that are embodied in the lives of vibrant EdTech practitioners as they are actively seeking to exert positive influences on the world around them.

The process may be messy, the artifacts may be a bit wild, and we may be required to grapple with some of our most basic assumptions about what it means to be educators, ethical people, or even (simply) human, but the resulting exchanges of experience and perspective are essential if we are to make a world that ever increasingly values learning, equity, civility, and simple goodness.

Is there a future in academic blogging? Will EdTech scholars continue to maintain these "public brains" for the world to see? Futurist predictions in EdTech are almost always wrong, but I'll at least say that I hope that as our field continues to develop that these voices and the communities surrounding them keep up the good fight, because if

nothing else, they have at least had a positive impact on me.

# Appendices

These appendices are included to provide additional resources that might be helpful for further exploration of the topics touched on in this book and for helping the reader to make best use of this book to support both formal and informal learning.

# A List of Some Great EdTech Blogs

There are probably hundreds of great EdTech blogs out there that weren't included in this book either because I wasn't aware of them or I couldn't get permission to include them. Also, as a book, this is intended to be a finite collection; so, not every great blog post out there could be included.

However, to encourage readers to check out some of the other great blogs that are floating around out there, here is a short-ish list:

| Blog | Twitter Handle |
| :---: | :---: |
| **Alan Levine [https://cogdogblog.com/]** | **@cogdog [https://twitter.com/cogdog]** |
| Audrey Watters [http://hackeducation.com/] | @audreywatters [https://edtechbooks.org/-mCd] |
| Autumm Caines [http://autumm.edtech.fm/] | @autumm [https://twitter.com/autumm] |
| Benjamin Doxtdator [https://edtechbooks.org/-qpG] | @doxtdatorb [https://twitter.com/doxtdatorb] |
| Bon Stewart [https://edtechbooks.org/-NmZ] | @bonstewart [https://twitter.com/bonstewart] |
| Brian Lamb [https://abject.ca/] | @brlamb [https://twitter.com/brlamb] |
| Catherine Cronin [http://catherinecronin.net/] | @catherinecronin [https://edtechbooks.org/-Bap] |
| Chris Gilliard [https://hypervisible.com/] | @hypervisible [https://edtechbooks.org/-rEjS] |
| Clint Lalonde [http://clintlalonde.net/] | @edtechfactotum [https://edtechbooks.org/-QSE] |

| Blog | Twitter Handle |
|---|---|
| [Curt Bonk [https://edtechbooks.org/-tic]](https://edtechbooks.org/-tic) | [@travelinedman [https://edtechbooks.org/-fMw]](https://edtechbooks.org/-fMw) |
| [Dave Cormier [http://davecormier.com/]](http://davecormier.com/) | [@davecormier [https://edtechbooks.org/-FLm]](https://edtechbooks.org/-FLm) |
| [David Wiley [https://opencontent.org/]](https://opencontent.org/) | [@opencontent [https://edtechbooks.org/-ZWn]](https://edtechbooks.org/-ZWn) |
| [Frances Bell [https://francesbell.com/]](https://francesbell.com/) | [@francesbell [https://edtechbooks.org/-KfM]](https://edtechbooks.org/-KfM) |
| [George Veletsianos [http://www.veletsianos.com/]](http://www.veletsianos.com/) | [@veletsianos [https://edtechbooks.org/-wYH]](https://edtechbooks.org/-wYH) |
| [Javiera Atenas [https://edtechbooks.org/-hnL]](https://edtechbooks.org/-hnL) | [@jatenas [https://twitter.com/jatenas]](https://twitter.com/jatenas) |
| [Jim Groom [https://bavatuesdays.com/]](https://bavatuesdays.com/) | [@jimgroom [https://twitter.com/jimgroom]](https://twitter.com/jimgroom) |
| [Karen Cangialosi [https://karencang.net/]](https://karencang.net/) | [@karencang [https://twitter.com/karencang]](https://twitter.com/karencang) |
| [Kate Bowles [http://musicfordeckchairs.com/]](http://musicfordeckchairs.com/) | [@katemfd [https://twitter.com/katemfd]](https://twitter.com/katemfd) |
| [Laura Czerniewicz [https://theconversation.com/]](https://theconversation.com/) | [@czernie [https://twitter.com/czernie]](https://twitter.com/czernie) |
| [Lorna M. Campbell [http://lornamcampbell.org/]](http://lornamcampbell.org/) | [@lornamcampbell [https://edtechbooks.org/-uJg]](https://edtechbooks.org/-uJg) |
| [Maha Bali [https://blog.mahabali.me/]](https://blog.mahabali.me/) | [@bali_maha [https://twitter.com/bali_maha]](https://twitter.com/bali_maha) |
| [Martin Weller [http://blog.edtechie.net/]](http://blog.edtechie.net/) | [@mweller [https://twitter.com/mweller]](https://twitter.com/mweller) |
| [Michael Feldstein [https://mfeldstein.com/]](https://mfeldstein.com/) | [@etwiterate [https://twitter.com/etwiterate]](https://twitter.com/etwiterate) |
| [Paul Prinsloo [https://edtechbooks.org/-RqZ]](https://edtechbooks.org/-RqZ) | [@14prinsp [https://twitter.com/14prinsp]](https://twitter.com/14prinsp) |
| [Rajiv Jhangiani [http://thatpsychprof.com/]](http://thatpsychprof.com/) | [@thatpsychprof [https://edtechbooks.org/-mEu]](https://edtechbooks.org/-mEu) |

| Blog | Twitter Handle |
| --- | --- |
| Rob Farrow [https://edtechbooks.org/-iAP] | @philosopher1978 [https://edtechbooks.org/-Ezb] |
| Robin DeRosa [http://robinderosa.net/] | @actualham [https://twitter.com/actualham] |
| Rolin Moe [http://edutechnicalities.com/] | @rmoejo [https://twitter.com/rmoejo] |
| sava saheli singh [https://edtechbooks.org/-Gio] | @savasavasava [https://edtechbooks.org/-CHp] |
| Scott Leslie [https://scottleslie.ca/] | @sleslie [https://twitter.com/sleslie] |
| Scott McLeod [https://edtechbooks.org/-Nxk] | @mcleod [https://twitter.com/mcleod] |
| Sean Michael Morris [https://edtechbooks.org/-ZVr] | @slamteacher [https://edtechbooks.org/-CFo] |
| Sheila MacNeill [https://howsheilaseesit.net/] | @sheilmcn [https://twitter.com/sheilmcn] |
| Sherri Spelic [https://edifiedlistener.blog/] | @edifiedlistener [https://edtechbooks.org/-adRS] |
| Stephen Downes [https://www.downes.ca/] | @downes [https://twitter.com/downes] |
| Tannis Morgan [http://homonym.ca/] | @tanbob [https://twitter.com/tanbob] |
| Tony Bates [https://www.tonybates.ca/] | @drtonybates [https://edtechbooks.org/-FkM] |
| Tressie McMilan Cottom [http://tressiemc.com/] | @tressiemcphd [https://edtechbooks.org/-tvi] |

# Recommendations for Formal Learning



This book was designed to be readable on its own as an informal learning resource and also to be a ready-to-go complement for formal coursework in educational technology. To use the book as part of your coursework, consider some of the following ideas and activities:

## 1. Keep a Reflection Journal on Your Own Blog

As you read through chapters, reflect on the issues and questions central to each post or to each section. Post a short, written reflection on your own blog, which you can create through a free service like WordPress [https://wordpress.com/] or Tumblr [https://www.tumblr.com/]. Then, comment on two or more peers' posts to ask questions, clarify points of disagreement, and explore complexities.

## 2. Create a 30-Second Video Summary

Using a free video creation tool, such as Adobe Spark [https://spark.adobe.com/] or Biteable [https://biteable.com], create a 30-second video that either summarizes one blog post's main ideas or highlights the different stances presented in two contradictory blog posts. Post your creation to YouTube [http://youtube.com] or another video sharing service, and cite the blog post(s) in your video description.

Alternatively, this same assignment could be completed as a podcast.

## 3. Generate a Timeline

Using a free timeline creator, such as Visme [https://edtechbooks.org/-IAb] or Sutori [https://www.sutori.com], make a timeline of 5-10 important blog posts, using the original publication date provided in the editor's note for your date. Add in 5-10 major national or world events that might influence how educators are thinking about technology's role in education. Include a brief summary for each post in your timeline, and share your timeline with a neighbor, explaining how viewpoints, attitudes, and movements might evolve over time as the field progresses and in response to broader sociocultural shifts.

## 4. Ask the Author

Most authors whose blog posts are highlighted in this book have commenting features enabled on their blogs, or alternatively, they have an accompanying Twitter handle [https://edtechbooks.org/-NPD] through which they may be contacted. Select a post that you would like clarification on, and direct your question(s) about the post to the original author (either via blog comments on the original post or via Twitter). Then, report back to the class about whether and how the

author responded.

# 5. Summarize a Topic

Choose a topic from the [Index of Topics](https://edtechbooks.org/-yTH] [https://edtechbooks.org/-yTH], and read each blog post that references it. Then, write a brief summary paper that answers the following questions:

1. How do different authors understand the topic? How are they the same? Different?
2. What are some of the important issues and tensions surrounding the topic that the authors address?
3. What solutions are provided?
4. In your estimation, where do we go from here?

# 6. Create a MindMap

Using a free mind mapping application, such as [bubbl.us [https://bubbl.us]](https://bubbl.us) or [Wise Mapping [http://www.wisemapping.com]](http://www.wisemapping.com), create a map of your knowledge as you read through the blog posts. Connect important ideas that relate to one another, and try to identify relationships between specific movements, topics, and issues. Once completed, share your mind map with the class, and explain what you think are some of the most important connections that you made.

# 7. Recommend a Blog Post

Operating from the [list of additional blogs [https://edtechbooks.org/-NPD]](https://edtechbooks.org/-NPD) (or other sources provided by the instructor), explore blog posts that were not included in this book with the task of finding a post that you would like to have seen included. Submit your recommendations to an instructor-provided Google document, spreadsheet, or form along with a rationale, which explains

the following:

1. What is the topic and central argument of the recommended post?
2. How does it represent an important voice or perspective on the topic?
3. How does it fill a gap in the conversation presented in the book?

# 8. Create Your Own Collection

Potentially building off of the previous activity, build your own open textbook or other open educational resource using existing, openly-licensed blog posts as your primary content sources. Organize contents in a meaningful way that either makes an argument or addresses a specific aspect of educational technology (e.g., MOOCs, open education). Build your collection as a Google Doc or in a blogging platform, provide sufficient narrative of your own to help your reader fit the pieces together, and release your collection under an open license.

# Book Authors

## Royce Kimmons



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Kimmons, R. (2019). *EdTech in the Wild: critical blog posts*. EdTech Books. Retrieved from https://edtechbooks.org/wild