Beyond assessment: recognizing achievement in a networked world
Downes, Stephen

National Research Council Canada   Conseil national de recherches Canada

Beyond Assessment: Recognizing Achievement in a Networked World

For ePIC 2014 (11th July, Greenwich)

Stephen Downes

What does it take to be a Dean at MIT?

"Ms. Jones had received the institute's highest honor for administrators, the M.I.T. Excellence Award for Leading Change." But no degree.

http://www.nytimes.com/2007/04/27/us/27mit.html?_r=5&

Meanwhile, how many of us are just faking our cultural knowledge?

- And does it matter?
- Is there some set of core materials we should all know?

It's interesting to think of culture as a type of language that makes it possible to communicate, but it's a mistake, I think, to confuse knowing a language, which is an extended facility (as in playing a game), with knowing a set of facts.
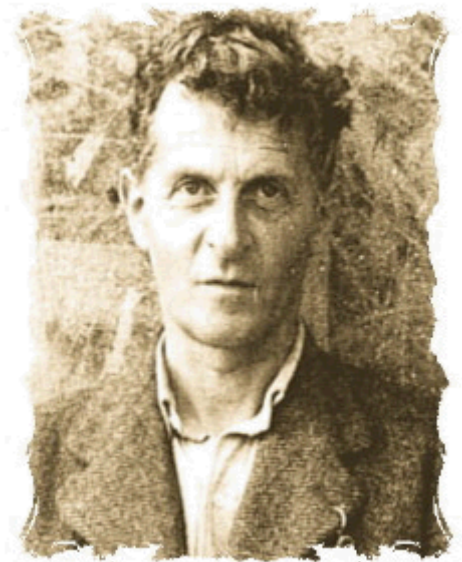
What constitutes 'success'?

- Success, say, as an 'academic researcher'?
  - the number of articles
  - the "impact factor" of the journals
  - number of citations more than expected

Really?

Issues and questions…

1. LinkedIn, job boards, and portfolio sites make it easier than ever to look for work. So why does it seem harder than ever to find a job?

http://www.cbc.ca/spark/blog/2014/04/27/hr-tech/

2. Today's students leave lots of data trails - from demographic information, to how they read and highlight ebooks, and interact online. Is it ethical to use this?

http://www.cbc.ca/spark/blog/2014/04/27/personal-education/

3. If everyone's learning experience is customized, does that mean everyone gets an A?

Are MOOCs doing what we need?

Not according to traditional metrics

[nonetheless] "shifting the definition of education away from its historical roots to a skills-based, instrumentally-defined exercise."

http://www.hybridpedagogy.com/journal/mooc-problem/

What is it we need?

- One way of looking at it is the 'skills gap'
- "Large swaths of those unemployed are not what employers are seeking..."

Positively Correlated Vacancy and Unemployment Rates Implies Some Labour Market Mismatch

March 2011-March 2014
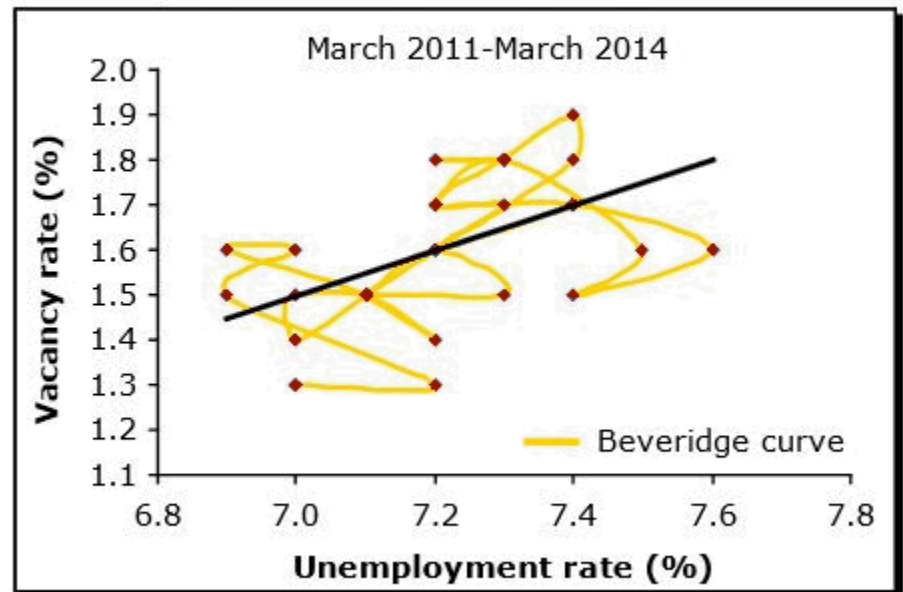
Source: CIBC calculations based on Statistics Canada's tabulations

Looked at this way, it would make sense for employers to offer learning and test for skills

- But that's not what's happening

What's being recommended instead…

- Learning Outcomes Assessment Program

- Council on Skills and Higher Education

- Education and skills for Aboriginal peoples

- Narrow the skills gaps between men and women

- Credential recognition and skills training for immigrants

http://canada2020.ca/wp-content/uploads/2014/05/2014_Canada2020_Paper-Series_Education_FINAL.pdf

What impact did LTIs have on each of the following?
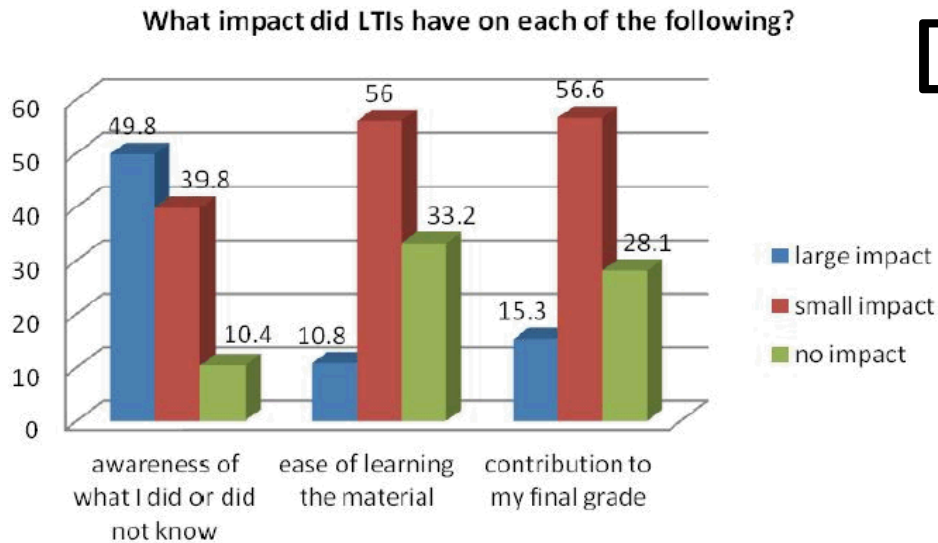
Figure 4 *Student perceptions of the impact of LTIs*

Doing it the hard way: compiling 'learning task inventories' to define sets of activities related to skills

The largest impact seemed to be obtained when LTIs helped students determine what they did or did not know.

http://celt.uwindsor.ca/ojs/leddy/index.php/CELT/article/view/3976

To solve old problems, click here…

So here basically is the basis for instructional design: "Start with what you want them to learn, design an experience that will cause them to learn it, build in some checks that this is happening along the way and has happened by the end."

http://www.oliverquinlan.com/blog/2014/06/11/theory-of-change-in-education/

That's what PISA did…
But maybe PISA isn't working
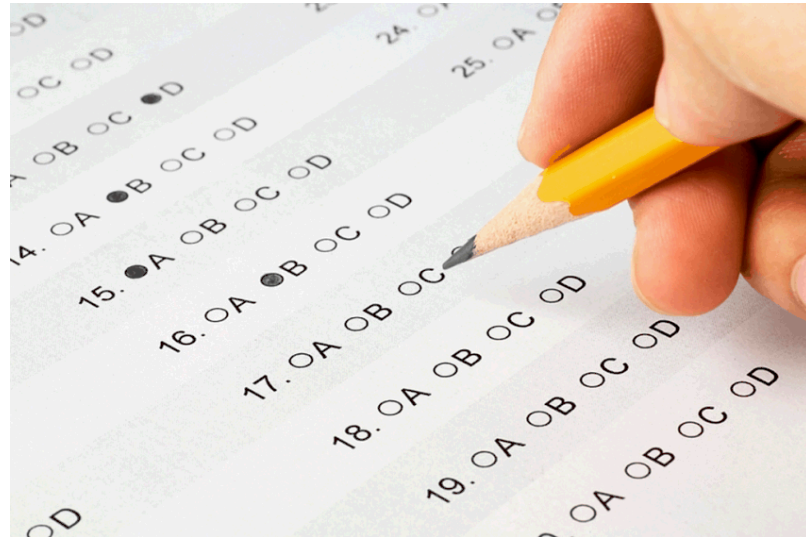
"Their skills and qualities should also be acquired from a variety of activities such as play, online activities, and games instead of merely completing academic assignments or extending homework time."

上海攻关学生作业多问题 或将退出下次PISA测试

http://zhaolearning.com/2014/05/25/not-interested-in-being-1-shanghai-may-ditch-pisa/
http://sh.sina.com.cn/news/k/2014-03-07/160084868.html

Why the emphasis on testing? One theory: it makes testing companies a lot of money…

- the per-student cost for testing is currently around $31 per student, times 50 million students in the U.S. alone…

http://www.teachthought.com/learning/solving-the-problem-of-modern-assessment/

And yet education is crucial for development, and skills build on skills
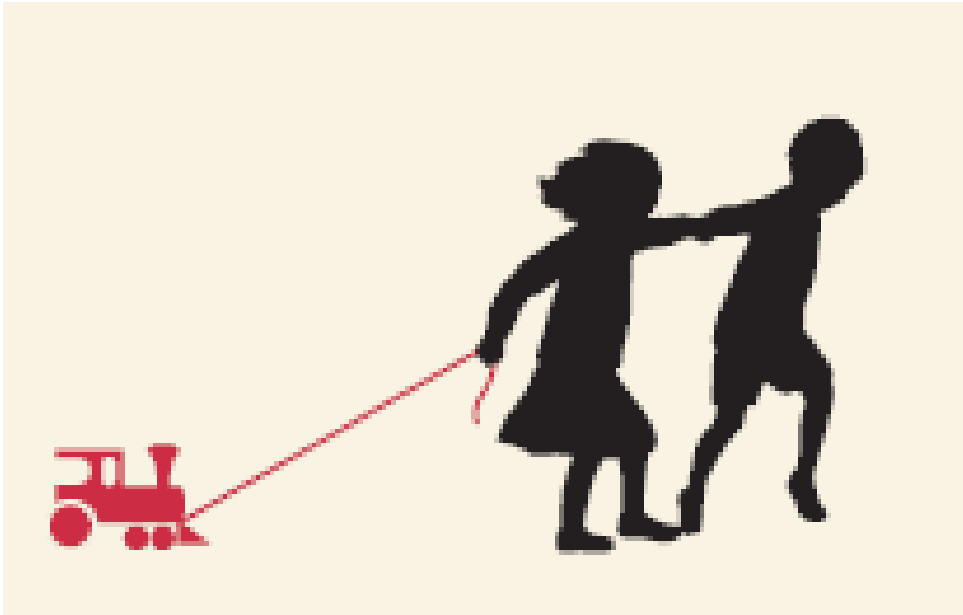
"The average time spent in school by a country's students and the labour productivity of its workers have been statistically linked." - Pearson

http://thelearningcurve.pearson.com/reports/the-learning-curve-report-2014

The problem with outcomes…

Useful outcomes, like 'understand' and 'appreciate' are vague and undefinable… but concrete outcomes like 'display', 'recite' and 'define' are behaviourist and based in rote

Gardner Campbell: "these complexities matter. When confident, simple, plain, orderly advice is given about a complex matter, I hear the sound of the hatchet replaced by the sound of wood snapping as the branch I'm sitting on gives way."

http://www.gardnercampbell.net/blog1/?p=2239

The educational black box limits our options here…

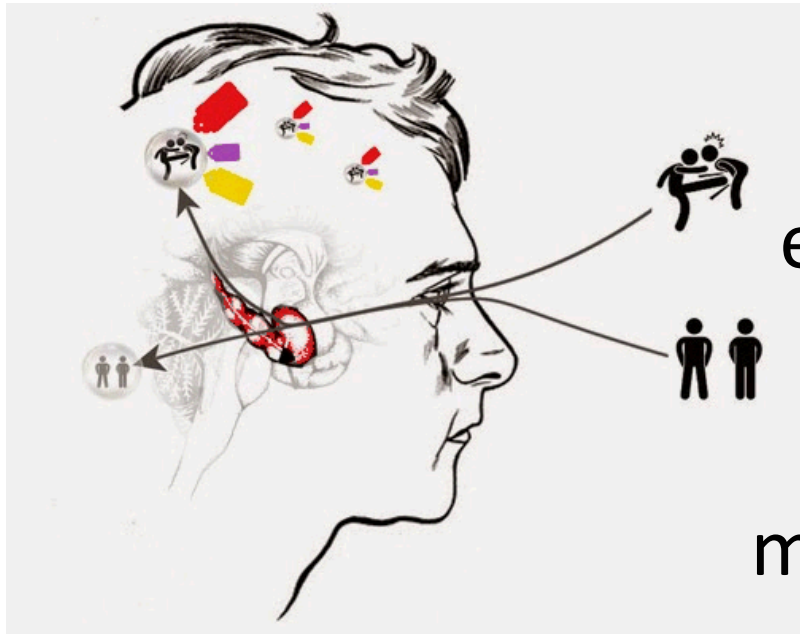
Most all educational theory belongs either to the category of

(a) continuing to use the black box, or

(b) making stuff up that we *think* characterizes cognitive phenomena.

http://www.hackeducation.com/2014/06/07/what-should-technologists-know-about-education/

http://dangerouslyirrelevant.org/2014/06/ed-tech-behaviorism.html
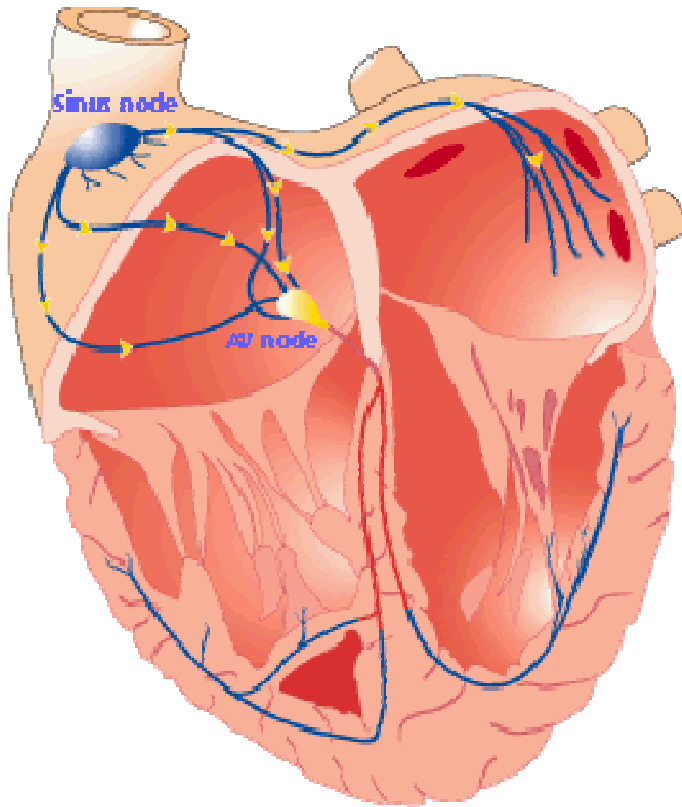
This, for example, is a blatant appeal to made up stuff:

"... our brains need some way of deciding what to encode and how to encode it, so as to retrieve it in a way which is useful. Our minds solve this problem by encoding information along with its affective context..."

Talbot: Biology's shameful refusal to disown the machine-organism

Even a simple concept like 'Paris' is more like a wave of interconnected neural activations, an activation that takes place *in the very same body* of water as the next wave

http://natureinstitute.org/txt/st/org/comm/ar/2014/machines_18.htm
Image: https://emedtravel.wordpress.com/page/16/

The next phase: competency-based education

- CBE models offer credentials based on demonstrated proficiencies

- Critics argue that it seems too much like training and is focused too much on outcomes

http://www.universityaffairs.ca/competency-based-degree-programs-are-growing-in-the-us.aspx
http://eduvation.ca/ideas/competency-based-degrees/
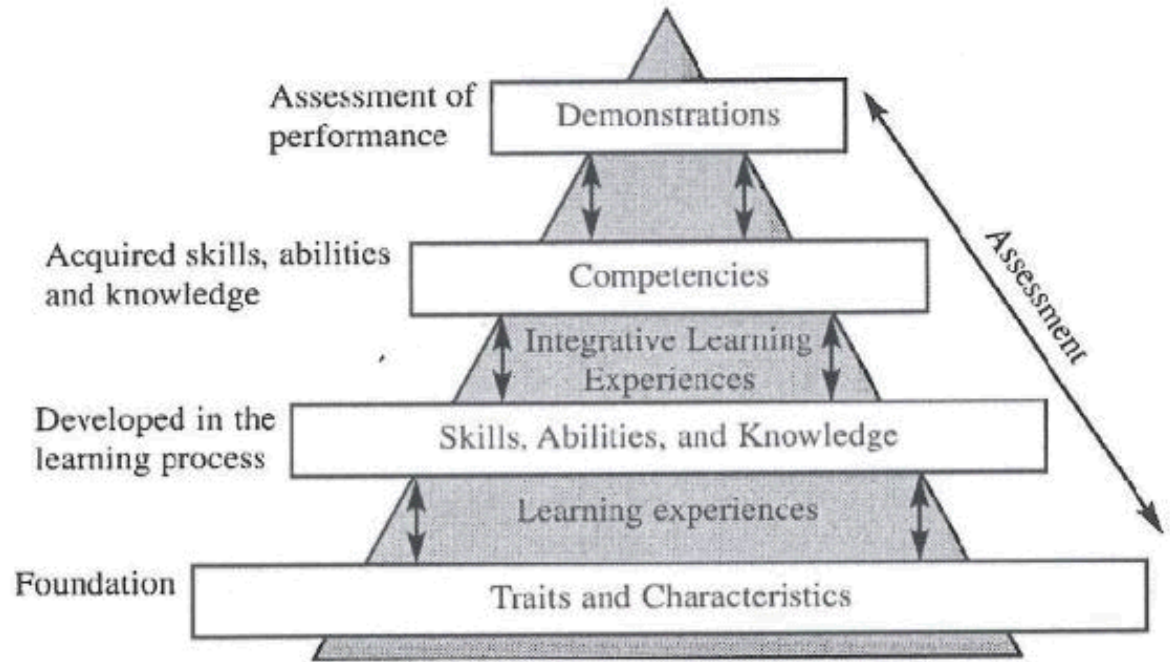http://academica.ca/top-ten/competency-based-degrees-continue-gain-popularity

Personal learning requires competencies?

Well, yes, under some circumstances: ""You can't truly do personalized learning and also continue to have common expectations without competencies."

http://blogs.kqed.org/mindshift/2014/06/going-all-in-how-to-make-competency-based-learning-work/

"There is no systematic, comprehensive study indicating that the purported skills from a CBE program translate into performance."

Assessment of performance — Demonstrations

Acquired skills, abilities and knowledge — Competencies

Integrative Learning Experiences

Developed in the learning process — Skills, Abilities, and Knowledge

Learning experiences

Foundation — Traits and Characteristics

Assessment

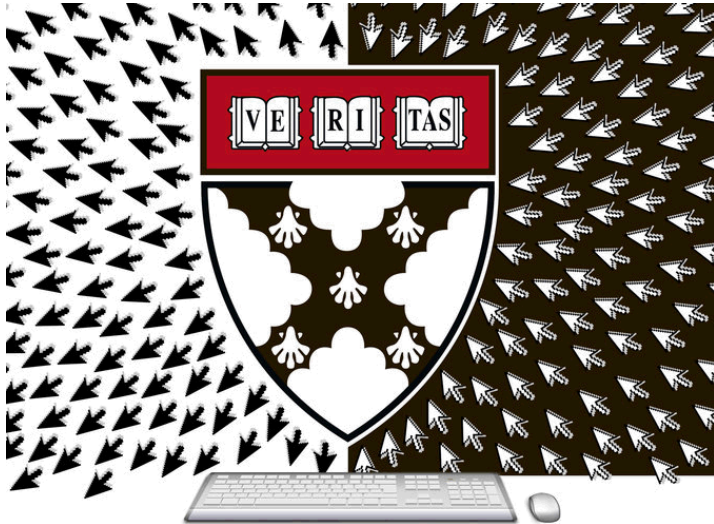But which competencies? We don't really know…

What are we getting instead?
A slew of alternative credentials…
A veritable *slew!*

- "Qualt are based on courses developed by the Association of Accounting Technicians (AAT), Google, the Institute of Direct and Digital Marketing (IDM) and other professional bodies."
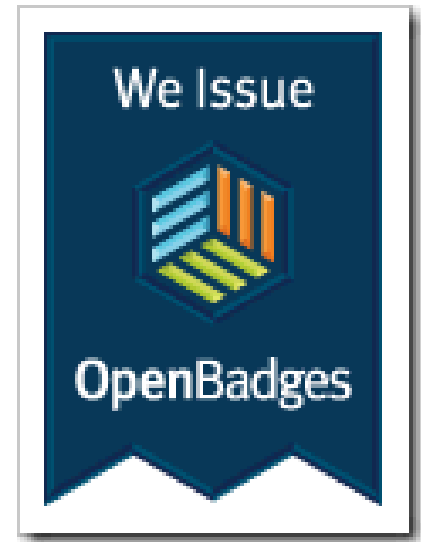
http://www.qualt.com/

Everybody's in on it

- "(Harvard's) response is to create a new type of credential, the Credential of Readiness, or CORe, which students can take online.

http://www.nytimes.com/2014/06/01/business/business-school-disrupted.html?_r=0

- ALT designs and releases badges as part of its ocTEL MOOC
- It also releases a plug-in
- Badges issued using BadgeOS are now exposed as Open Badges compliant Assertion

https://newsletter.alt.ac.uk/2014/06/alt-issues-first-open-badges-as-part-of-octel-and-releases-plugin-to-the-community/
http://cogdogblog.com/2014/06/25/to-badge-yourself-or-to-be-badged/

- Udacity: "Together with AT&T and an initial funding from AT&T Aspire of more than $1.5 million, we are launching nanodegrees: compact, flexible, and job-focused credentials that are stackable throughout your career."

http://blog.udacity.com/2014/06/announcing-nanodegrees-new-type-of.html

- European Commission: VM Pass

- (Recognition of virtual mobility and OER learning)

- "validation process that is based on combination of peer review and crowdsourcing."

http://acreelman.blogspot.ca/2014/06/passport-for-learning.html
http://vmpass.eu/

- College Credentials by Condé Nast
- Writers and editors will contribute subject matter expertise
- The publisher will provide some financial backing to the partnerships

- "…open access to machine-readable representations of learning objectives published by education agencies and organizations including the Common Core State Standards."

- Learning Locker
- open source Learning Record Store (LRS) for tracking learning data
- turnkey offering, the Cloud LRS

http://www.ht2.co.uk/ben/?tag=learning-locker
http://learninglocker.net/

The Holy Grail of open learning…

- … at the moment is finding a sustainable and reliable model for the validation of non-traditional learning. -- Alastair Creelman

- But this makes me ask: do we want to validate the learning, or the *person?*

http://acreelman.blogspot.ca/2014/06/passport-for-learning.html
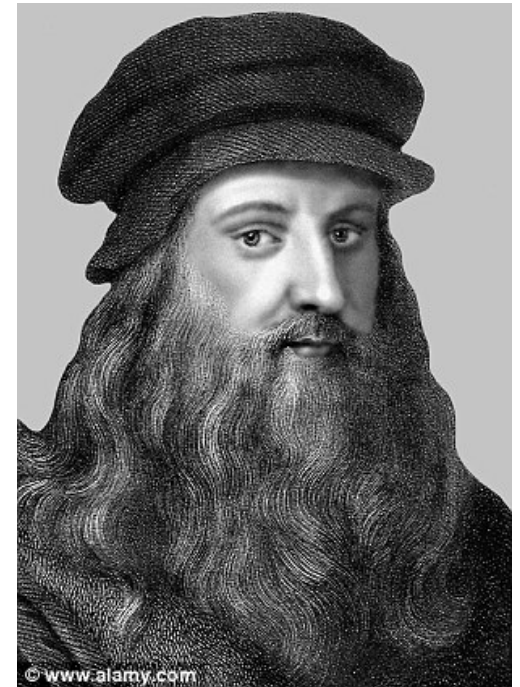
Let's remember what the objective was…
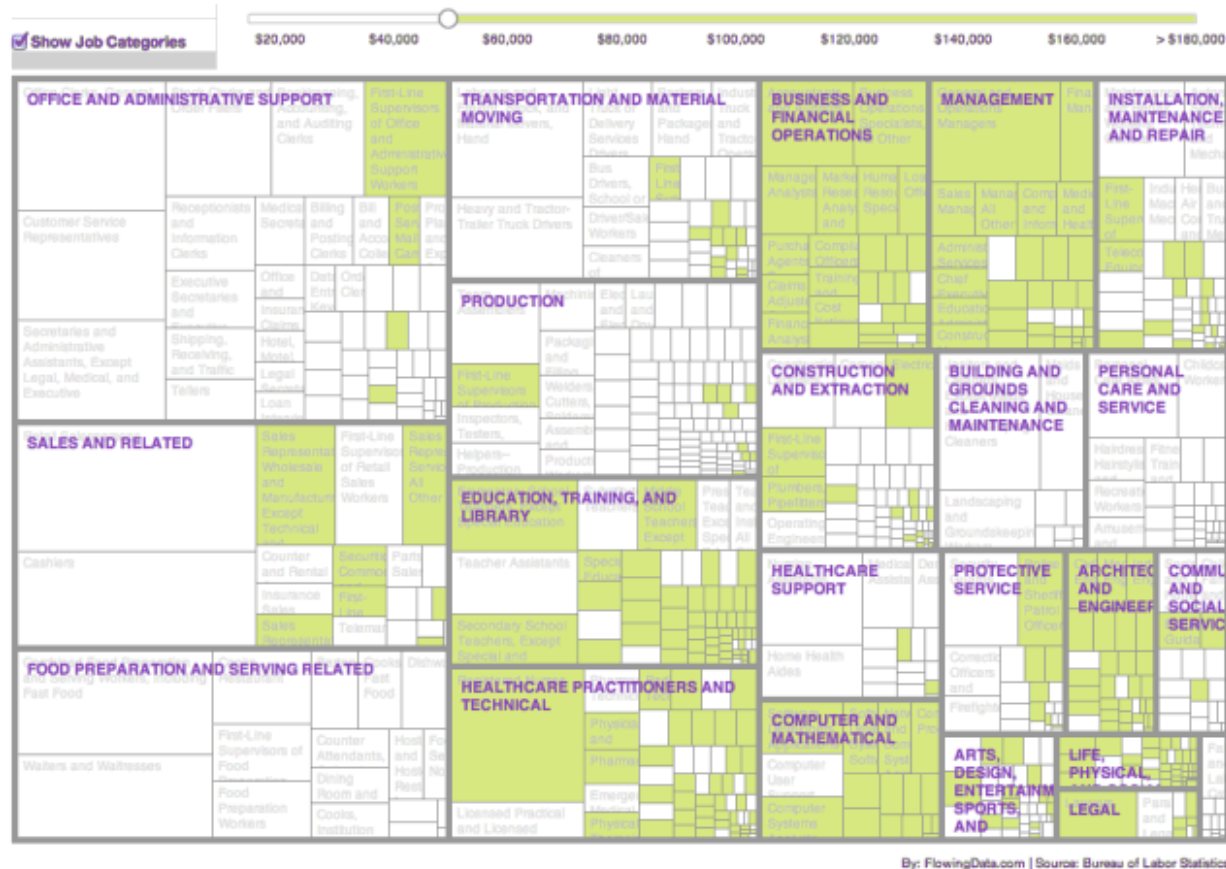
Jobs,
Skills,
Gap…

A basic understanding of understanding:

- I don't really think the answer to "do you understand?" is "let me demonstrate". It's too easy to fake.

- But there's a sense in which knowing is about *doing* rather than some mental state

http://www.academia.edu/611581/On_Maturana_and_Varelas_Aphorism_of_Knowing_Being_and_Doing_A_Phenomenological-Complexity_Circulation

To know is to *recognize*

- Recognition isn't a mental state, like a belief or an idea.

- It is a physical state - quite literally, the organization of connections - which is manifest as a disposition - the propensity to respond appropriately in an authentic environment

To *do*, in other words, rather than to know.

- Theories and concepts can help associate different perceptual states and make us better recognizers. But they are an *aid* to learning, not the objective.

http://www.daveswhiteboard.com/archives/5265

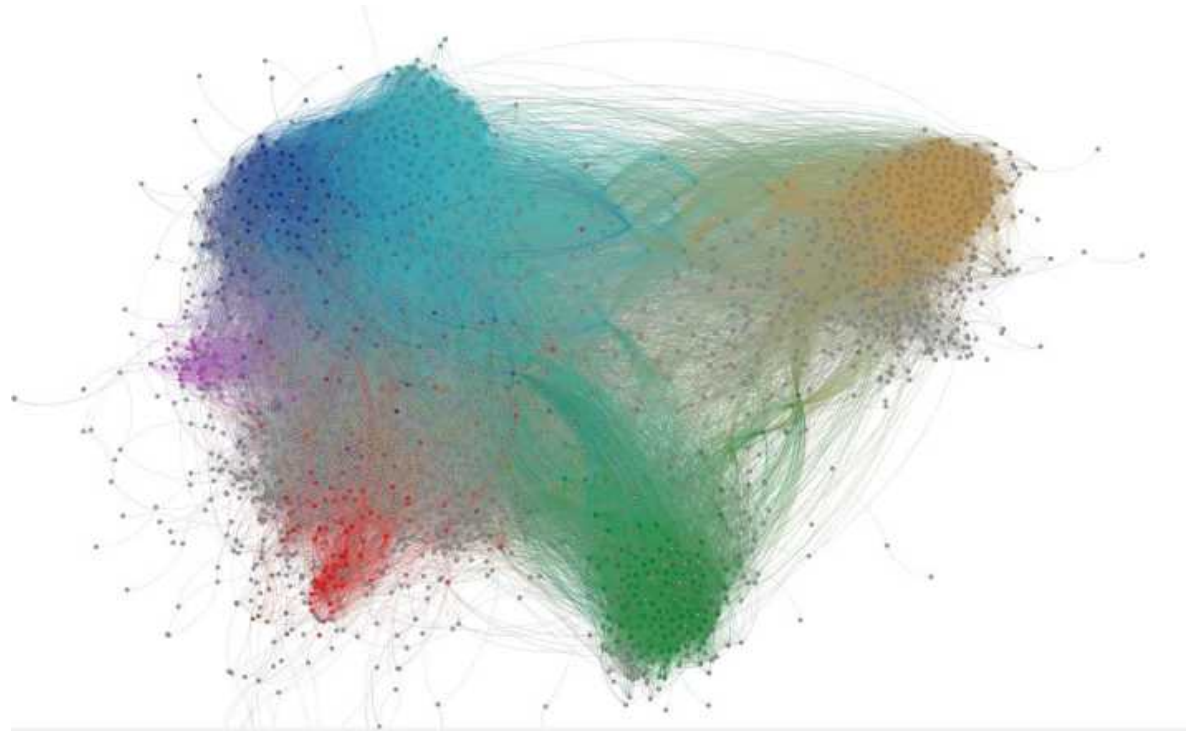# The secret formula to becoming an e-learning professional (or anything else, for that matter)

- e-learning pros practice their craft
- e-learning pros show examples of their work
- e-learning pros share what they do and learn

Here's me showing what I know...

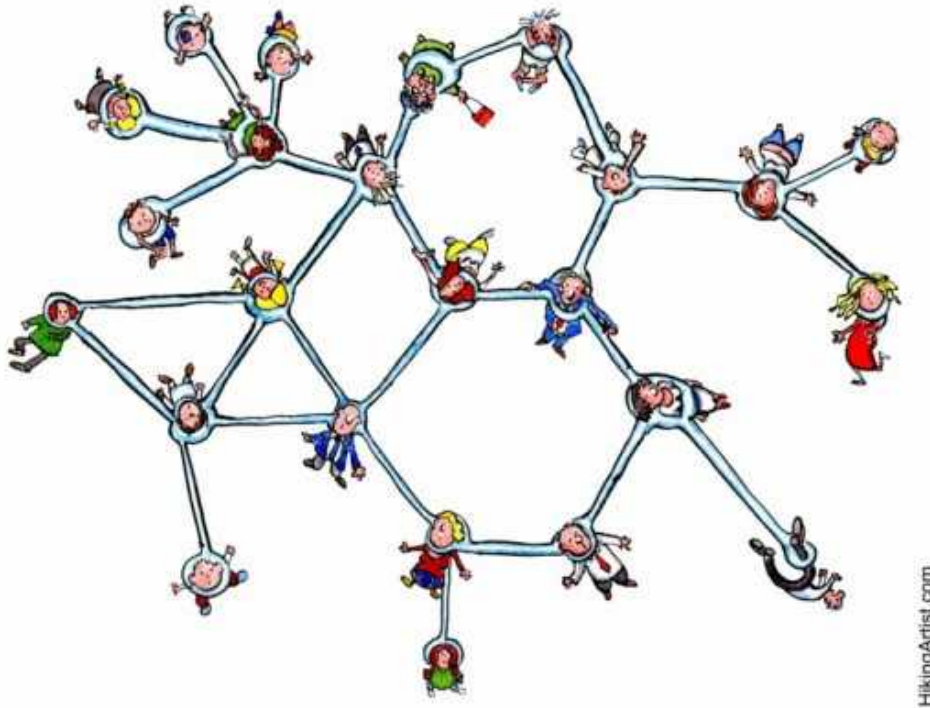Here's my LinkedIn network showing a lot of connections in Latin America, the UK and India

Add life-logging to learning…

A system called SCROLL (System for Capturing and Reusing of Learning Log). This in turn is based on the LORE model: Log, Organize, Reuse, Evaluate.
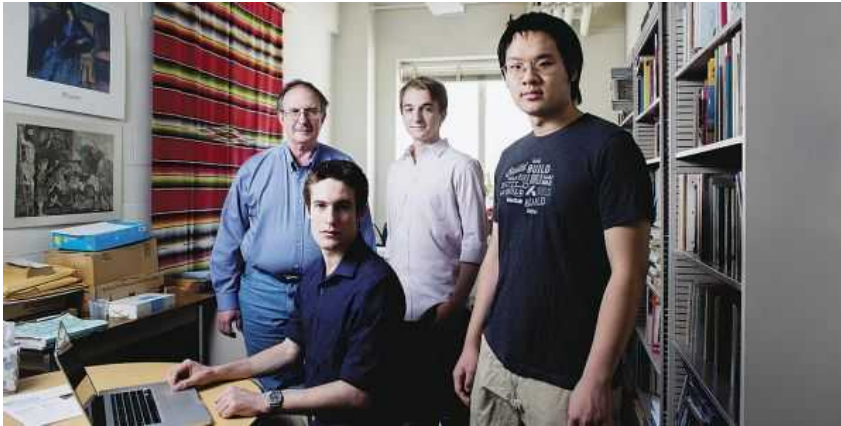
http://www.ifets.info/journals/17_2/8.pdf

Add learning to the Internet of Everything

"We will have to get skilled at constantly lumping data and things together, then filtering and categorizing the changing landscape."

It's assessment based on *public performance,* like an essay (and can be assessed in the same way an essay can be assessed)

And I know there are sceptics about machine-graded essays, but they're wrong

http://chronicle.com/article/Writing-Instructor-Skeptical/146211/
http://vikparuchuri.com/blog/on-the-automated-scoring-of-essays/

The machines are fooling you

- with as much as 65 percent of online chatter being generated by bots, chances are you've read or interacted with one.

http://www.bbc.com/future/story/20140609-how-online-bots-are-tricking-you

Grading is a *recognition* task

- This is what neural networks do

- It's how we design and build interfaces for ourselves

- It's how we'll interact with the internet of things

http://architectures.danlockton.co.uk/2014/04/21/introducing-powerchord-blackbird-edition/

It's how we're beginning to understand the world now (it's sometimes depicted as 'intuitive' – but it's a language, it's a culture, and we're growing up with it)

That's what Tapscott *really* means (though he might not know it)

http://www.youtube.com/watch?v=E5umSdiizH0

We're beginning to become sensitive to these cues and signals we send over the internet

'Can I Tweet That?'

http://www.insidehighered.com/news/2014/06/13/aaup-conference-sessions-focus-academic-freedom-relation-social-media
Image: http://www.brucesallan.com/2013/05/24/social-media-social-good-social-media-mistakes/

We reveal ourselves in our messages, and others reveals their thoughts about us in theirs…

- 'She will mock your aspirations then cackle over the remains of your spirit.'

- 'Good lecturer, ugly shoes.'

These assessments can be devastatingly personal and uninhibited

Discourse online is much less inhibited than discourse in person.

http://www.networkedlearningconference.org.uk/abstracts/pdf/rose.pdf
Image: http://nyrm.org/?p=76

We'll see it in other areas first…

"Use Big Data, crush the numbers in specialized AI software, and soon the narrative of why and how mental health issues appear, of why some students persist and some not, will become clear, predictable and operational."

http://www.universityaffairs.ca/how-artificial-intelligence-is-about-to-disrupt-higher-education.aspx

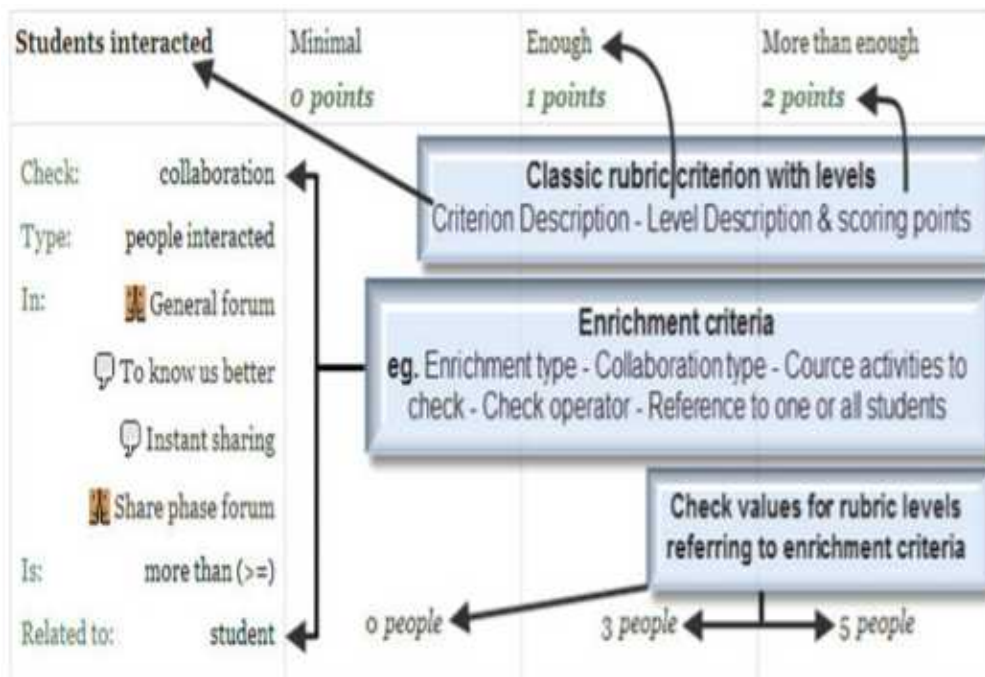# Sometimes what we reveal will be involuntary...

I experience an involuntary shudder as though it were *me* about to experience that fall. It's hard to self-monitor, but it *seems* like I'm reacting less over time to these fail videos.

FAIL

http://bits.blogs.nytimes.com/2014/06/15/looking-at-link-between-violent-video-games-and-lack-of-empathy/
Image:
http://www.sharenator.com/image/10288/

Students interacted	Minimal	Enough	More than enough
	0 points	1 points	2 points

Check: collaboration

Type: people interacted

In: General forum

To know us better

Instant sharing

Share phase forum

Is: more than (>=)

Related to: student

Classic rubric criterion with levels
Criterion Description - Level Description & scoring points

Enrichment criteria
eg. Enrichment type - Collaboration type - Cource activities to check - Check operator - Reference to one or all students

Check values for rubric levels referring to enrichment criteria

0 people   3 people   5 people

"a new cloud-based assessment tool, called Learning Analytics Enhanced Rubric (LAe-R)"

These assessment mechanisms are being built into LMSs and will become more sophisticated over time

http://www.ieeetclt.org/issues/january2014/Petropoulou.pdf

People are beginning to raise important questions:

- "methods for exploring the unique types of data that come from educational settings"

- "the intelligent use of data about learner behaviour"

- "data fishing"

http://newsletter.alt.ac.uk/2014/05/alt-members-views-on-learning-analytics/
Image: http://adaptivelearninginelt.wordpress.com/

The worlds of privacy and analytics intersect (not always happily)

"A right to privacy is neither a right to secrecy nor a right to control but a right to appropriate flow of personal information."

http://epress.lib.uts.edu.au/journals/index.php/JLA/article/view/3339

Image:http://article.wn.com/view/2014/05/07/Privacy_Analytics_Expands_Discovery_and_Analytic_Capabilitie/

You probably heard about this one:

"We show, via a massive (*N* = 689,003) experiment on Facebook, that emotional states can be transferred to others via emotional contagion…"

http://www.pnas.org/content/111/24/8788.full
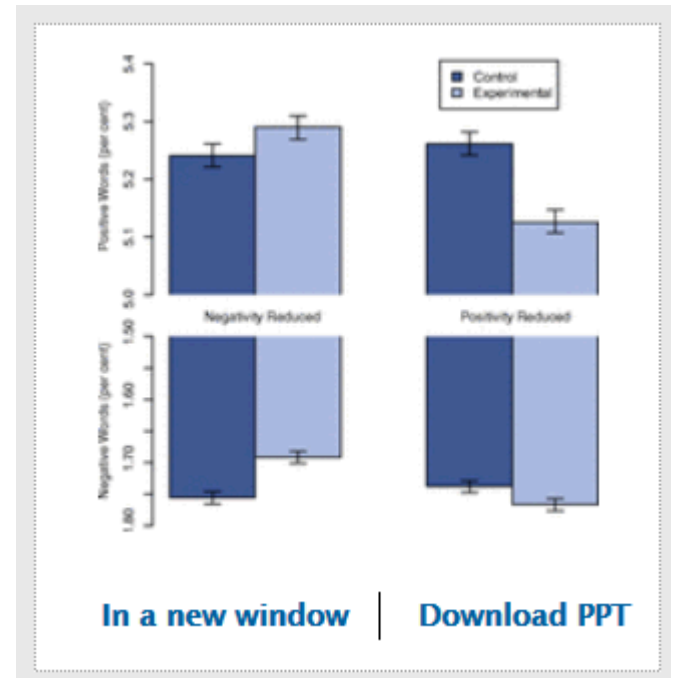
And you probably heard about the reaction…

some people want to de-Facebook. They'll be on Twitter

It's not just Facebook, though

- Yahoo joins others in dropping 'Do Not Track' citing standards confusion (standards confusion it helped create in the first place)

http://marketingland.com/yahoo-ditches-track-will-signal-end-privacy-initiative-82384
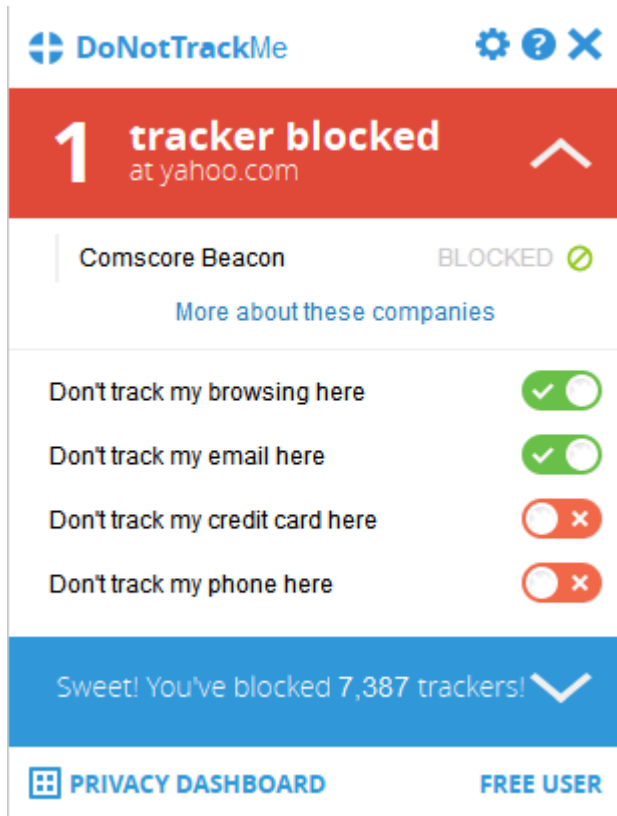
Google is another perpetrator…

They announced in April that they has halted the practice of scanning student Gmail accounts for any potential advertising purposes.

Wait! You mean they *were* scanning student accounts for advertising purposes?

http://blogs.edweek.org/edweek/DigitalEducation/2014/04/google_halts_scanning_of_stude.html
http://googleenterprise.blogspot.com/2014/04/protecting-students-with-google-apps.html

Sometimes it's accidental

- … but reveals some really questionable practices

- UVa Law School, for example: the information being collected and distributed to potential employers: grades, class rankings, political affiliation, work experience, recommenders, even information about where their girlfriends live!

http://chronicle.com/blogs/wiredcampus/emailed-in-error-uva-law-schools-student-spreadsheet-spreads-fast/53133
http://abovethelaw.com/2014/06/oops-top-law-school-email-screw-up-reveals-grades-ranks-of-all-clerkship-applicants/?show=comments

One option is to delete all our social media accounts

Heather Bussing: "I don't agree to their Terms of Service, and I don't need LinkedIn enough to put up with it."

http://www.elsua.net/2014/05/06/why-i-too-killed-my-linkedin-account/

http://www.hrexaminer.com/why-i-killed-my-linkedin-account/
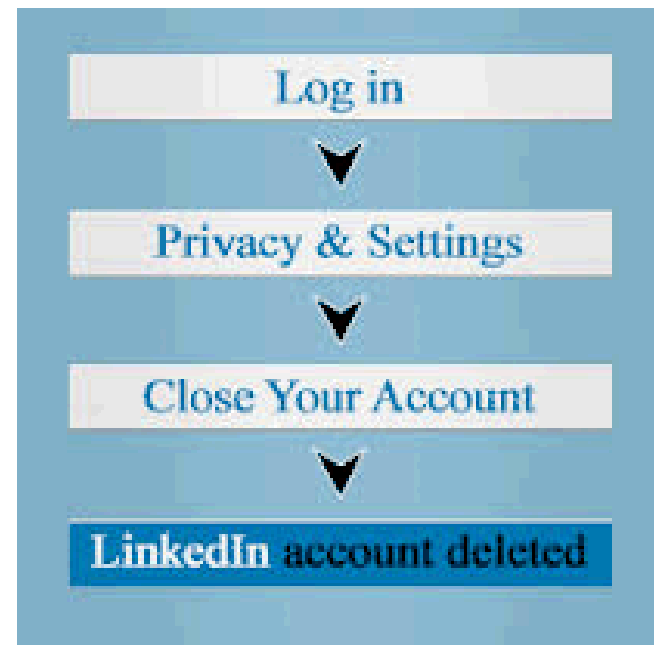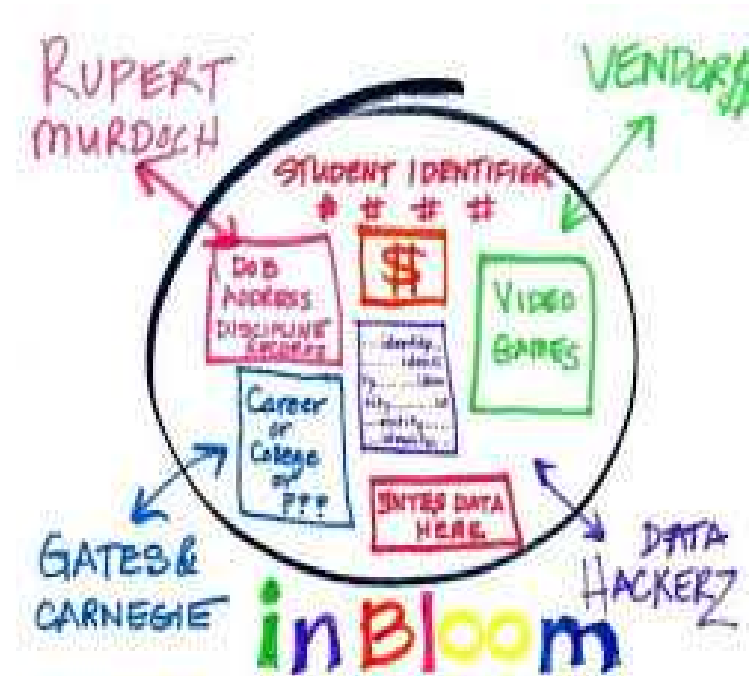
But people are not fleeing Facebook: Forrester
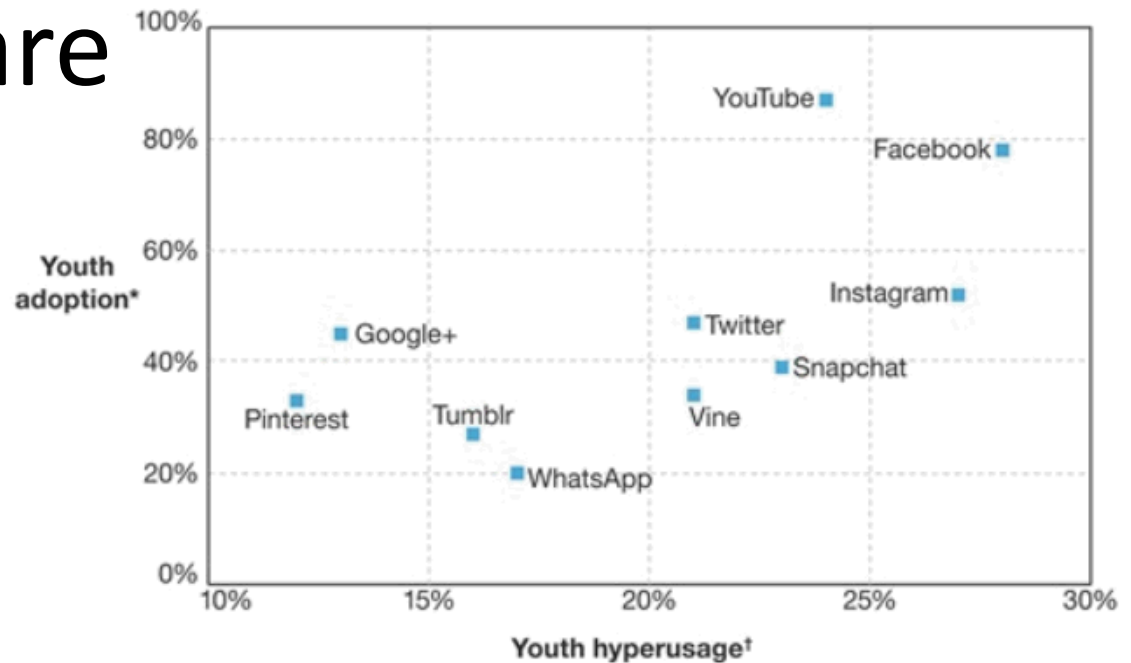
- Of course, that could change
- But for now, more than three-quarters of online youth use Facebook

http://blogs.forrester.com/nate_elliott/14-06-24-facebook_still_dominates_teens_social_usage
tp://www.adweek.com/news/technology/study-teens-are-not-fleeing-facebook-158535

But companies are feeling the heat

- A Gates-funded startup is shutting down over privacy and security concerns.
- "InBloom, based in Atlanta, offered to store and synthesize student data"

http://bigstory.ap.org/article/gates-funded-student-data-group-shut-down
Image: http://education-curriculum-reform-government-schools.org/w/2014/04/parents-force-shutdown-of-gates-inbloom-student-data-collection/

- "The main instrument of inBloom's death was privacy. Because inBloom involved so much student data, privacy concerns began to swirl about, and eventually turned into a tornado."

http://www.safegov.org/2014/4/28/why-did-inbloom-die-a-hard-lesson-about-education-privacy
Photo: http://teacherslettertobillgates.com/

(Ironically) The new concern about privacy is called 'the Snowden Effect'

"No one can deny that countries and regions are putting some strict guidelines in place to ensure privacy of sensitive data that is moving outside of their borders."

http://cloudcomputing.sys-con.com/node/3069314

The concern for privacy is impacting other aspects of learning

- Lecture capture, for example
- Today, when you attend class, the cameras will be on

http://www.universitybusiness.com/article/lecture-capture-privacy-please

One proposal is to ensure that common spaces are public spaces, and not privately owned…

"Perhaps it's time for governments to stop fawning over billionaires with technical skills and start providing services for all of us.." - Belshaw

http://dougbelshaw.com/blog/2014/04/23/software-with-shareholders/

The real answer is personal privacy

- And there *is* a clear indication that this is what people want

- For example, on the German crowdfunding site Seedmatch... an 'NSA-proof' private server project raised 750,000 euros n just 89 minutes

http://rt.com/news/163968-nsa-proof-server-crowdfunding/

People are moving to privacy-securing social networks

- Privatext, TigerText, Whisper, Mark Cuban's Cyber Dust, and so on.
- Another one with good press is Ansa
- There's also Omlet, an "open mobile social network."
- And let's not forget Diaspora, which has a user base of about 200,000.

http://www.inc.com/magazine/201407/ceo-of-wickr-leads-social-media-resistance-movement.html

Elements of the new system of assessment:

- Personal servers
- Public and private social networks
- Identity management

These are all being developed today

http://vimeo.com/95196331

Personal production feeds into content networks, which act as human-assisted quality filters

- Not just curation – but a process where readers engage with authors' work, draw links, demonstrate relevance

http://theedublogger.com/2014/06/12/curation/

Professions will coalesce around online communities, open-ended networks where links between members can be discerned
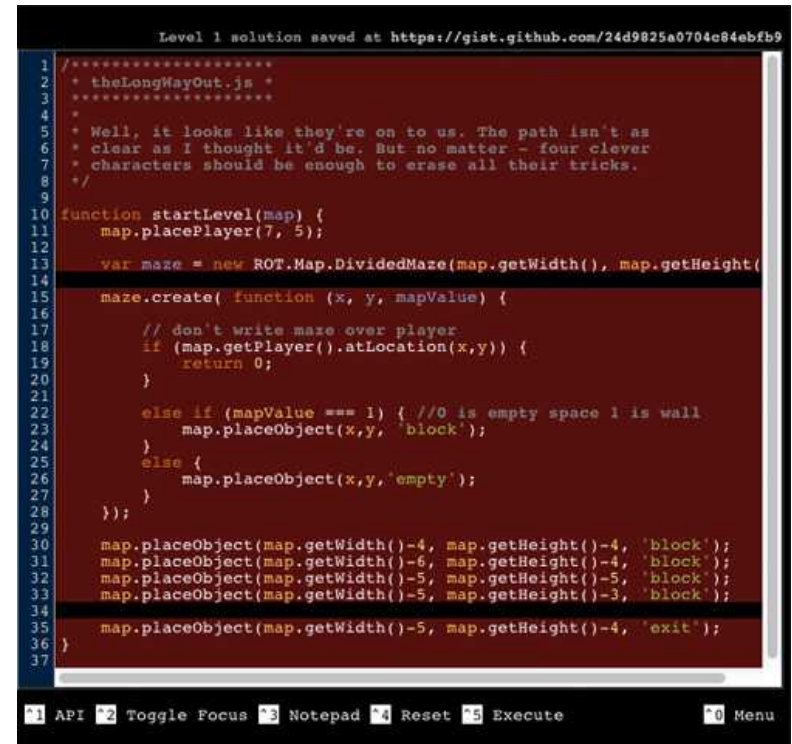
For example, the launch of Google Educators Groups. This is a program made up of communities of educators who can connect with each other to learn, share, and help each other.

These will resemble communities of practice... but just as easily could resemble games

For example, Untrusted: the idea is to escape. But to do so, you have to go into the Javascript that defines the maze and edit the code.

Artifacts such as conversations can be analyzed for meaning and word use

all interviews, even (perhaps especially) those used in research, should have three participant: interviewer, interviewee, and a third 'audience' or 'observer' person

Assessment of the future will redefine 'body of work'

And that will be a good thing

http://celt.uwindsor.ca/ojs/leddy/index.php/CELT/article/view/3981
Image: http://hamzakhan.ca/body-of-work-a-decade-of-kanye-west-productions/

Stephen Downes
http://www.downes.ca