

A large sculpture of a dragonfly, constructed from a dark wire mesh. The dragonfly is positioned centrally, with its wings spread wide. The background is a clear blue sky, with green trees visible on the left and right sides. The overall scene is bright and clear.

Beyond Borders: Global Learning in a Networked World

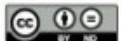
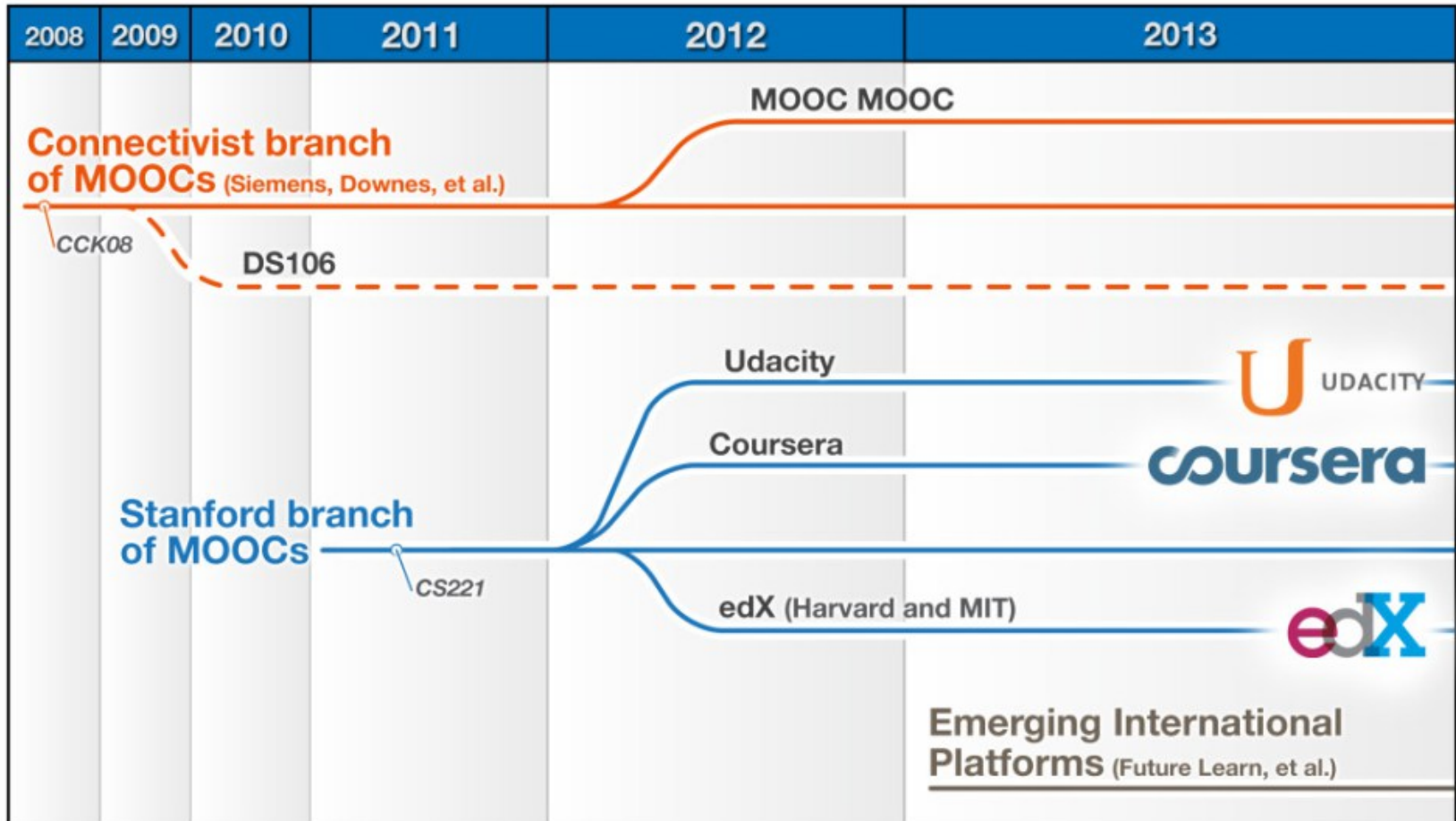
n Downes
n, Armenia
ber 2, 2014

Beyond Borders...



- We speak many different languages
- This is both the challenge and the opportunity

The MOOC Revolution



What does it mean?



The point of the MOOC is to be open

But that means more than just free stuff, and more than just online videos





It's a way of thinking, a way of relating to the world

It's a way of
creating
harmony
through diversity

When each of us
speaks a different
language we all
have something
unique to say



Open learning...



Open University opens in 1971

Athabasca University (1970/72)

Indira Gandhi National Open University (1985)

Open learning (2)

- Over time – enhanced accessibility
 - distance learning
 - reduction of financial barriers
 - tuition reductions
 - subsidies
 - progressive pedagogies
 - Creation of distance learning pedagogies
 - Moore, Merrill, Gagne



Open resources

- Project Gutenberg
- Open Archives Initiative
 - BOAI
 - Dspace
 - ROAR
- Wikipedia
 - Curricki
 - Wikiversity
 - WikiEducator



The OERu Logic Model



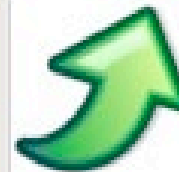
Students
awarded
credible degree or
credential



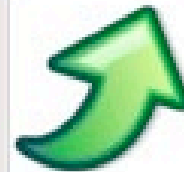
Participating
institutions grant
credit for
courses



Open assessment
from participating
institutions



Open student
support via
"Academic Volunteers
International"



Learners
access courses
based solely
on OER



Taylor, J.C. 2007. Open courseware futures:
Creating a parallel universe. e-Journal of
Instructional Science and Technology (e-
JIST), Vol 10, No. 1. Online:
[http://www.ascilite.org.au/ajet/e-
jist/docs/vol10_no1/papers/full_papers/taylor.htm](http://www.ascilite.org.au/ajet/e-jist/docs/vol10_no1/papers/full_papers/taylor.htm)

Criticism of the Logic Model



- Traditional Curricular based approach
 - a focus on articulation & credit transfer
 - closed federation of traditional institutes
- Tight link to traditional credentials

It's open delivery, but it's not open *learning*...



Friere: it's the *banking* method of education

Open versus closed delivery

- Learning objectives
 - concrete and stated Learning Objectives vs. unstated and multiple objectives
- Organization of subject matter
 - knowledge of vs knowledge about
 - linear organization vs knowledge community



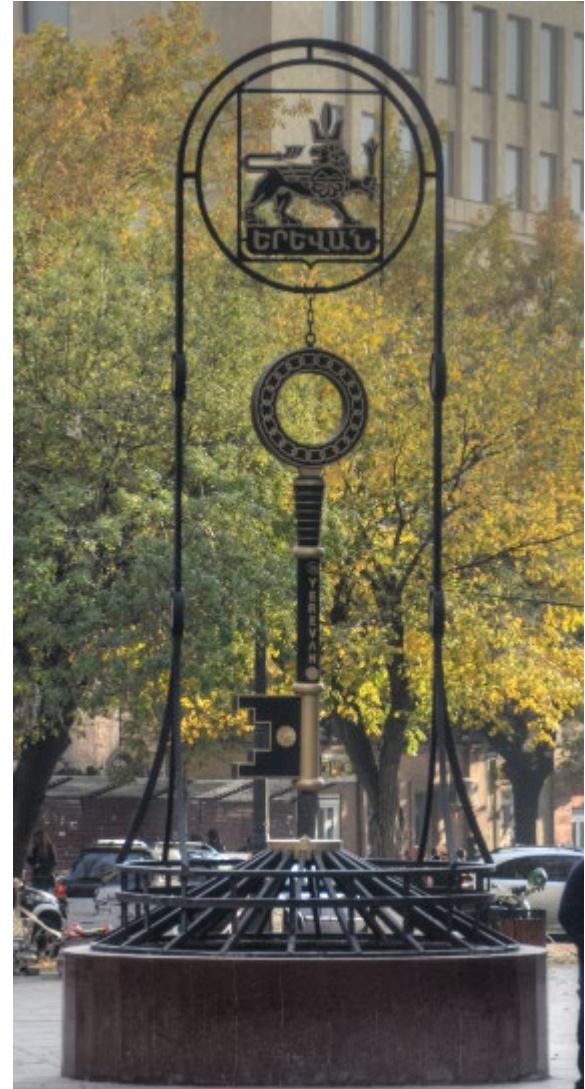
Open versus closed assessment

- Subject and content-focused assessment, vs. performance-based and networked-based
- Assessment against external criteria vs. self-assessment
- Assessment by-instructor vs. 3rd-party assessment



Free Learning

- Connectivist, or network, learning
- Network design principles: distributed, disintermediated, dynamic
- Design based on the 'semantic principle'





Learning is a matter of personal growth, not an accumulation of facts

Connectivist Learning Design

- A non-curricular based approach
 - course content is the ‘McGuffin’
 - learning takes places through interaction and creativity



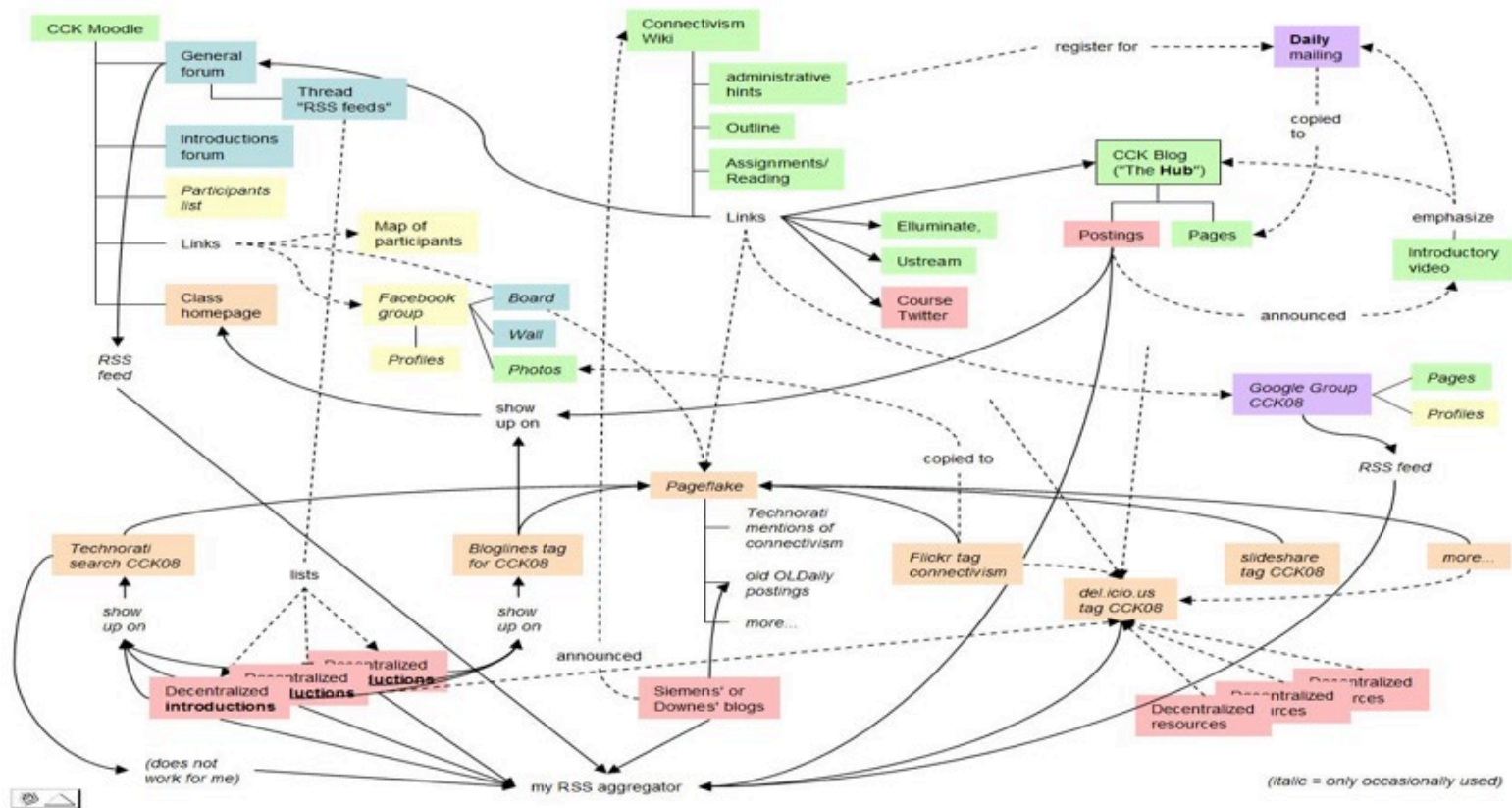
But... why

- It's a formal recognition that people have different destinations, different tastes
- Based on an understanding that knowledge varies according to these
- Expresses the principle that networks – communities – are stronger with multiple diverse perspectives
- Knowledge learned is *better* – indeed, *known*

In diversity, harmony and growth



A Map of the Community

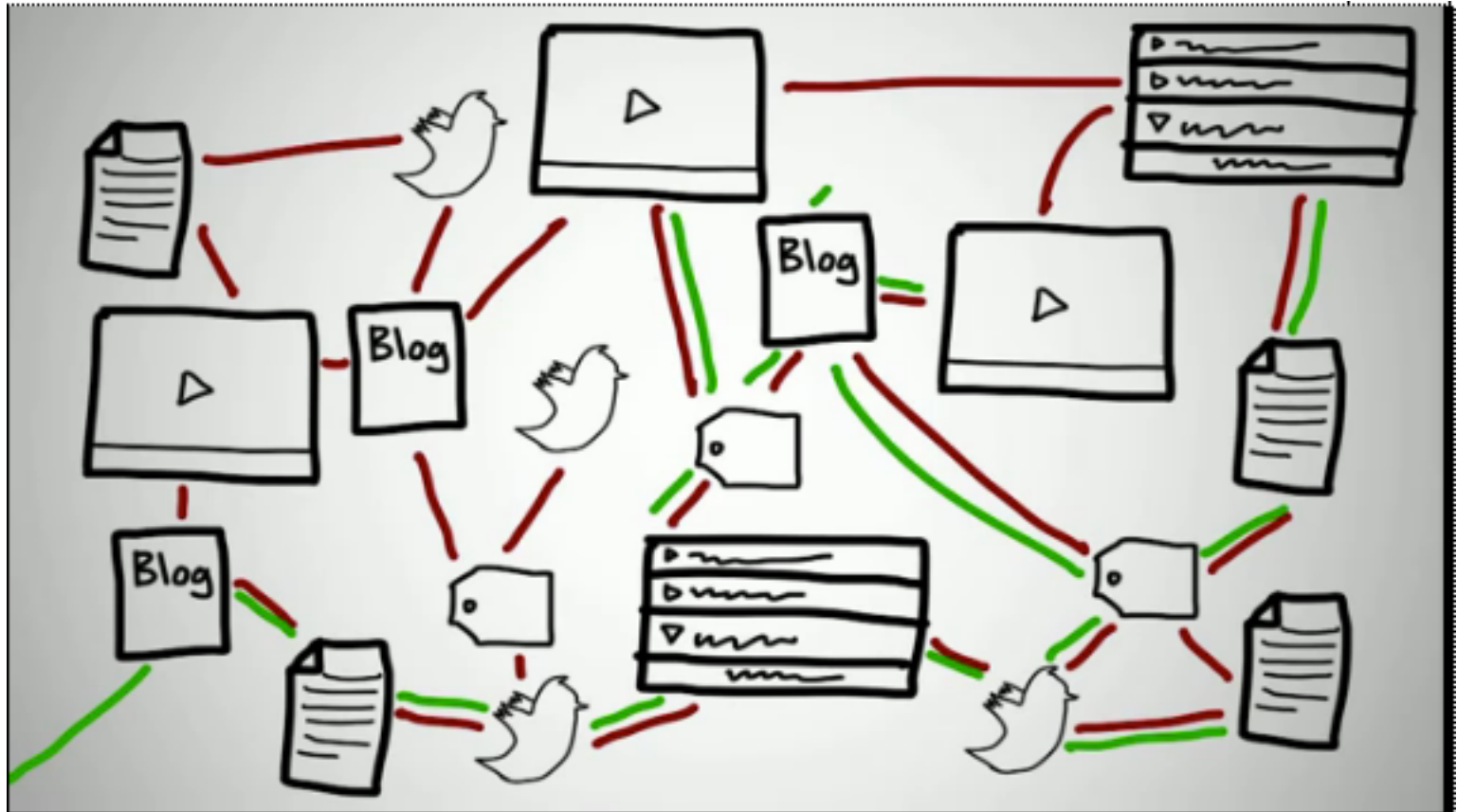


Connectivism: A Theory of Personal Learning
 Stephen Downes, December 3, 2008, Educational Development Centre, Ottawa
<http://www.downes.ca/presentation/208>

Our MOOC Model

- MOOC: Massive Open Online Course
- There is no central core feature – no core content, group, etc
- Course design is a network, or a map, or a community
- Resources are distributed, and aggregated
- Participants are encouraged to create their own resources, communities, groups

Connectivism & Connective Knowledge



How to be Successful in a MOOC



Dave Cormier

<http://www.youtube.com/watch?v=r8avYQ5ZqM0>

The madness and mayhem of DS106



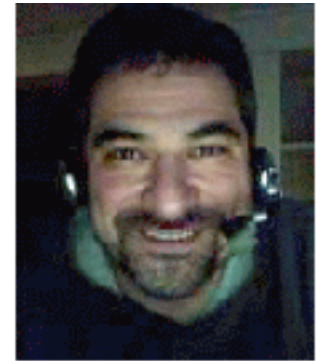
Jim Groom

DS = Digital Storytelling

DS106 redefined activities and participation

<http://ds106.us/>

eduMOOC underground



Jeff
Lebow

Jeff Lebow, Google+ hangout, and Livestream:
Taking something ordinary, and making it something
special – YOU make the MOOC

<http://www.livestream.com/jefflebow/>

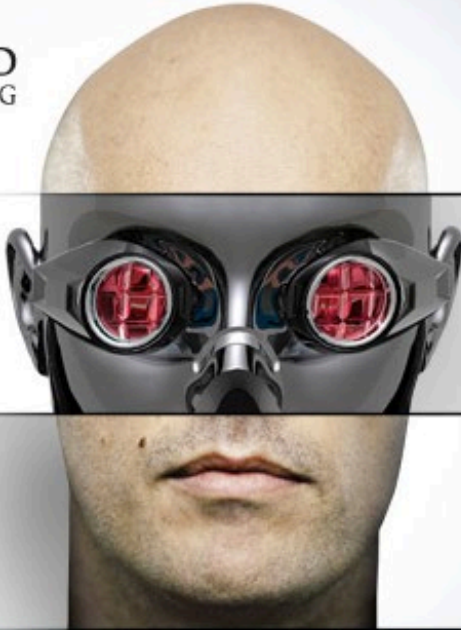
2011: Year of the MOOC



AI-Class: Redefining Massive



Oct. 10 ~ DEC. 16, 2011



INTRODUCTION TO

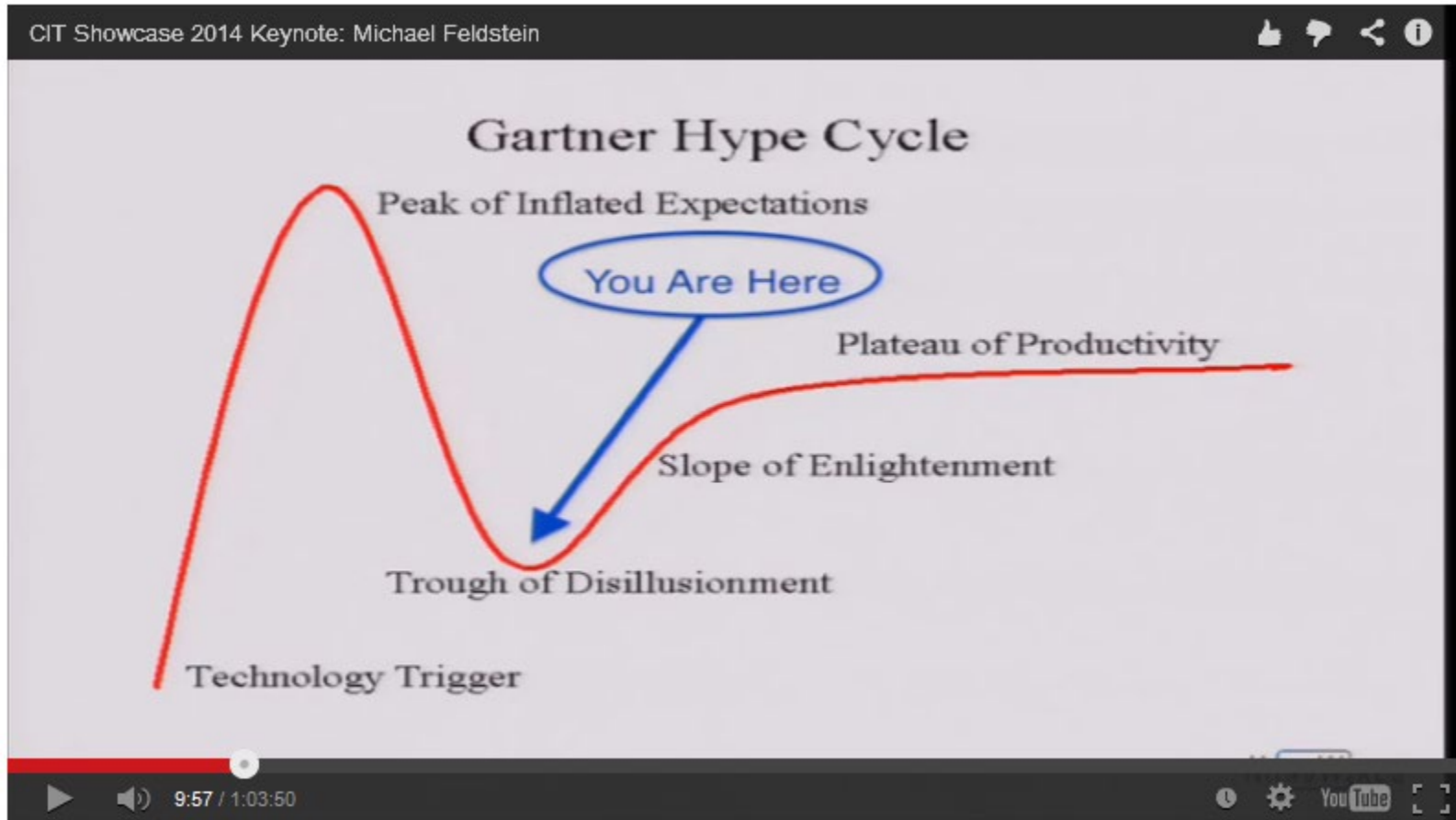
Artificial Intelligence

In partnership with the Stanford University School of Engineering.
You can join this online worldwide class this fall.

More than 100,000 people signed up for pre-registration – they got videos and online quizzes

<http://www.ai-class.com/>

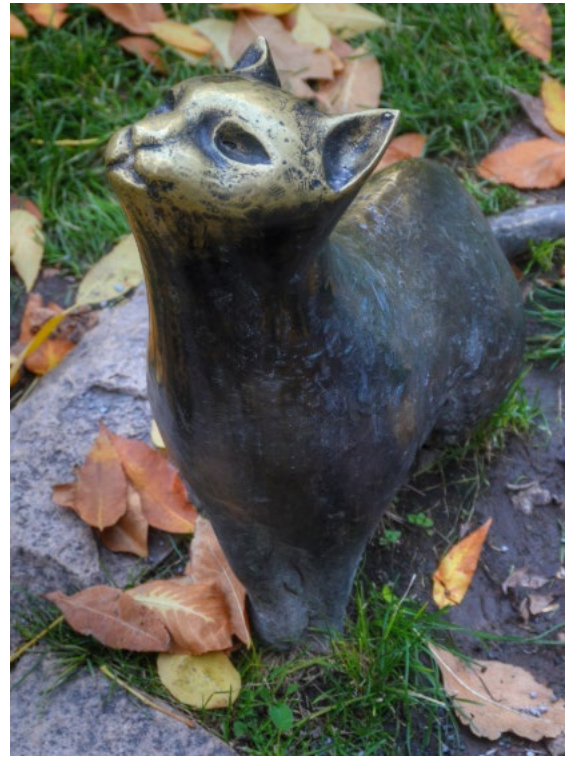
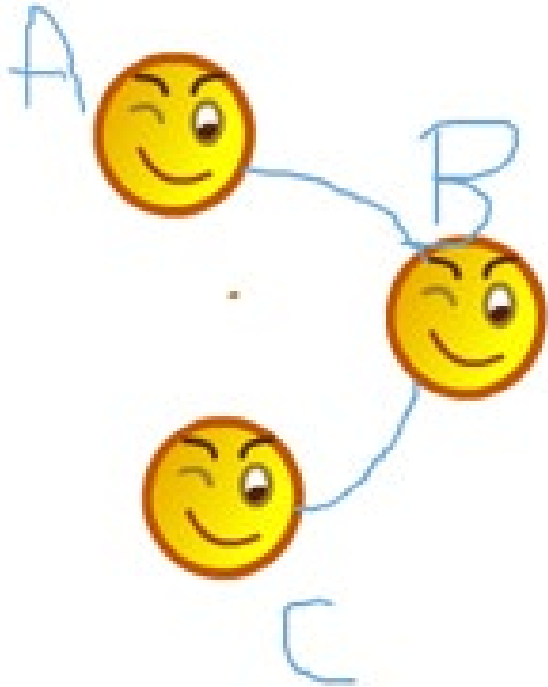
2014: Year of the Anti-MOOC



Transforming the system



New cultures of learning



Autonomy

Freedom as the factors affecting mental states
(empirical, cognitive, psychological)



Freedom as the capacity to act on mental states (physical, social, structural, resources)

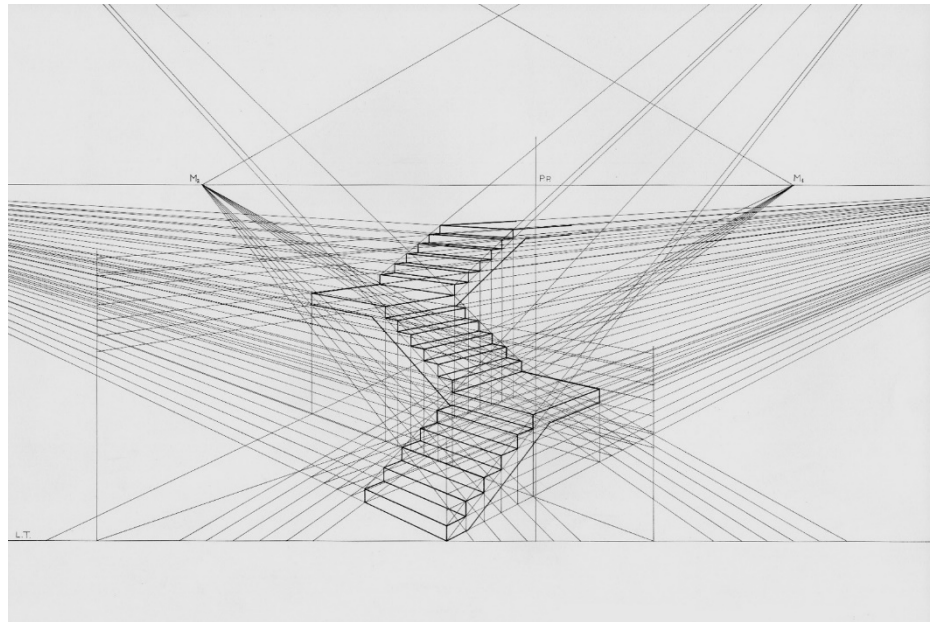


Scope and range of autonomous behaviour (expression, association, selection, method)

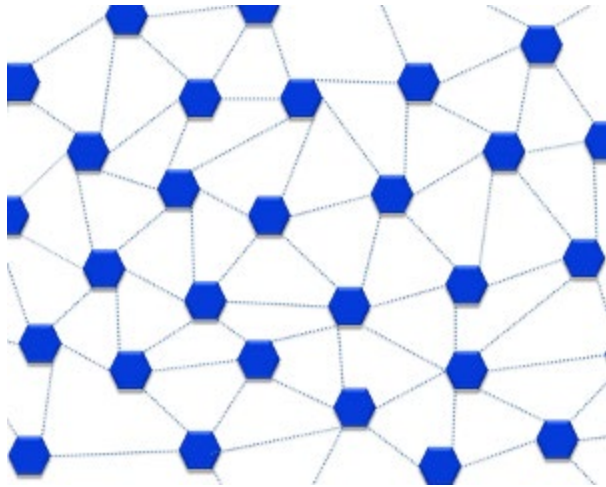


Diversity

- Composition - many types of entities
- Intention (of goals, desires (cf JS Mill))
- Perspective (uniqueness of point of view, language)



Mathematics of diversity (multiple inputs produce mesh networks)



- Putnam, Florida, and the rest of it
- Homophily and associationism

http://lemire.me/fr/documents/publications/DiversityTechReport_October2008.pdf

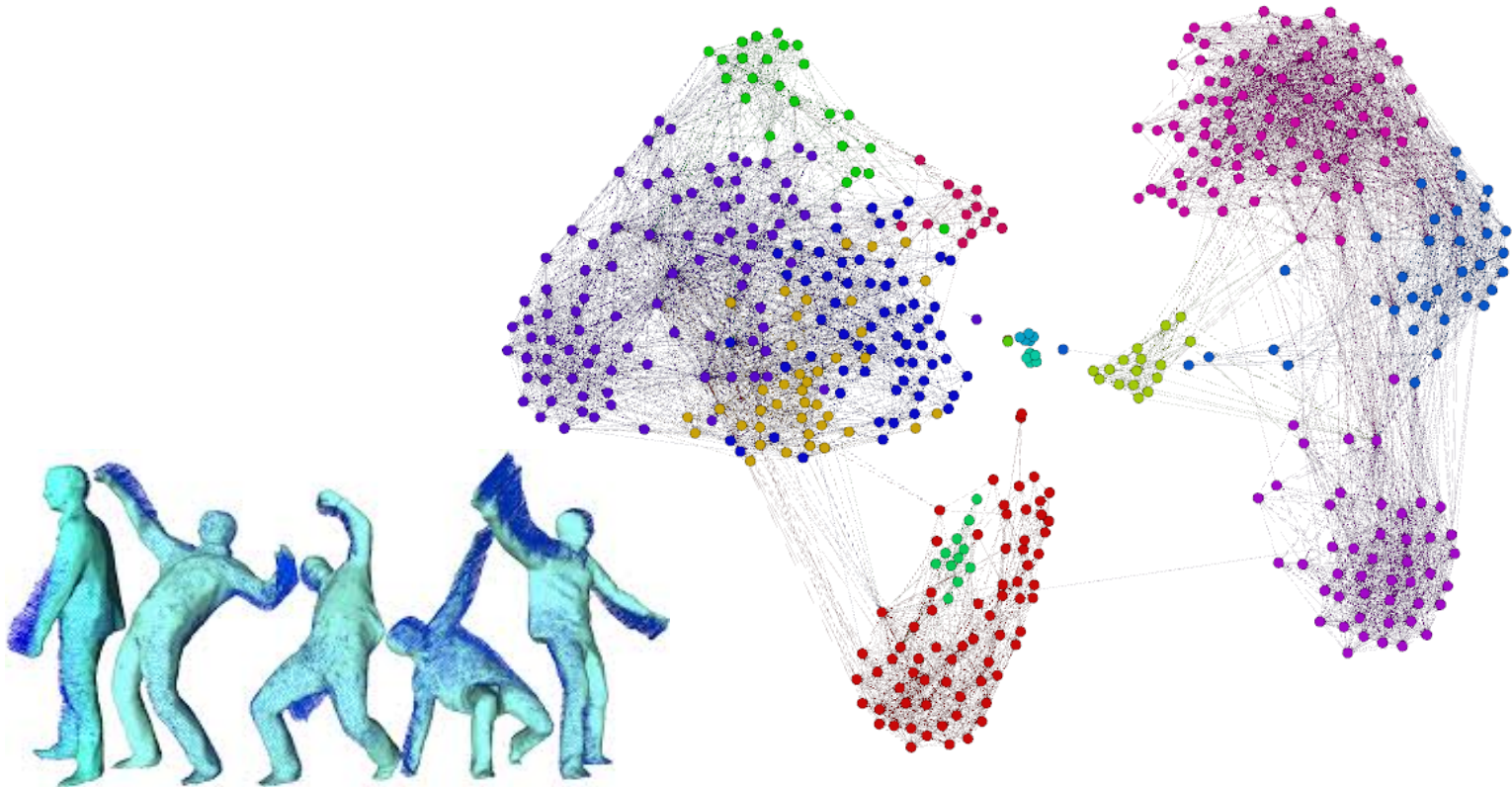
<http://profesorbaker.wordpress.com/2011/01/30/homophily-and-heterophily-what-fires-together-wires-together-cck11/>

Openness

- Open education, yes
 - Open content, teaching, assessment
 - Stages of openness and terminal path



- Open networks (clustering instead of grouping)
- Flow (input, output, feedback, plasticity)
- Open Educational Resources as the *medium of communication*



Interactivity

- Influence vs emergence (thought-bubbles – “we perceive wholes where there are only holes”)



<http://www.downes.ca/post/55001>

<http://connect.downes.ca/post/44222>

- Knowledge as pattern recognition
 - Ontological (real) vs perceptual (recognized)



Critical Literacies

A frame for understanding new media
Morris, Derrida and a little Lao Tzu

Syntax	Cognition
Semantics	Context
Pragmatics	Change



Understanding how we use artifacts to *communicate* in online and other learning networks

<http://www.downes.ca/presentation/232>

New Roles for Government

- Communications and Education Infrastructure
- Support for Open Educational Resources
- Support for Free Learning
- Management of assessments and credentialing



The Digital Infrastructure

- Public high-speed backbone networks
 - used not only for education but for other public services: police, fire and emergency, hospital, municipalities, etc.
- Local Access
 - eg. Community Access Points
- Legal Framework
 - policy on digital rights and copyright
 - net neutrality and similar regulations

A Note on Sustainability

Whatever we really
want is sustainable



Like, say, highways and roads

Sustaining Infrastructure

- Support for existing programs and services
 - cost reductions in communications overhead
 - improved efficiency of public service delivery
- Overhead on entertainment and commercial infrastructure
 - similar to broadcast 'CanCon' requirements



Open Educational Resources

- Traditional Resources
 - Already developed and paid for by government
 - Open access initiatives
- Public Policy Resources
 - design to serve a public end or objective
 - focus on basic literacies & community empowerment



Sustaining OERs

- Redirection of existing resource allocations
 - eg. OA mandates for grants and programs
 - community outreach for existing agencies
 - eg, NASA
- Support for community-based OER process
 - integration of OER development and use within publicly supported curricula
 - use of OERs in public services and programs

- Stephen Downes, Models for sustainable Open Educational Resources, ijklo.org/Volume3/IJKLOv3p029-044Downes.pdf <http://www.downes.ca/presentation/76>

- OER Help with Keynote Slides, OER-Forum <http://lists.esn.org.za/pipermail/oer-forum/2011-October/thread.html>

Software and Service Support

- Software and environment support
 - eg. Public Knowledge Project,
 - Open Journal Systems, Moodle, et
- Service networks and support
 - JISC / CETIS, EdNA, etc.
 - Common Services - eFramework



Sustaining Support Systems

- Development and systems research support
- Public adoption of open licensing
 - FLOSS
 - GNU/GPL, BSD, etc
 - Creative Commons
 - directs resources toward multi-sector development
- Community service requirement for commercially sourced software

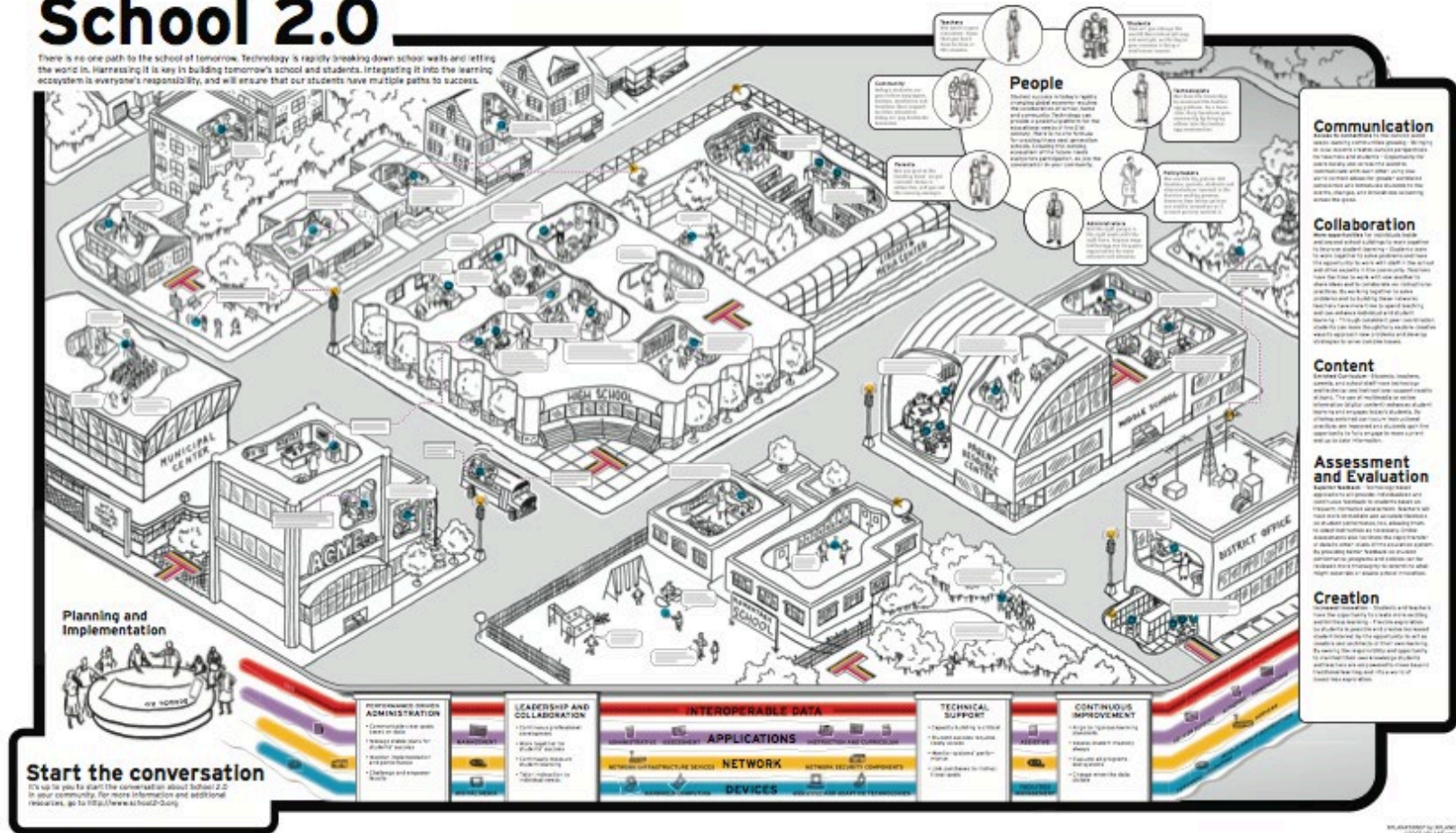
Assessment and Credentialing

- Support for Personal Learning
 - provision of personal learning environments and frameworks
 - promote lifelong learning
 - link to skills database, corporate training registries
 - direct support for employment and funding
 - personal portfolios and credential banks
 - voluntary, self-managed
 - optional identity frameworks

The Old School 2.0

School 2.0

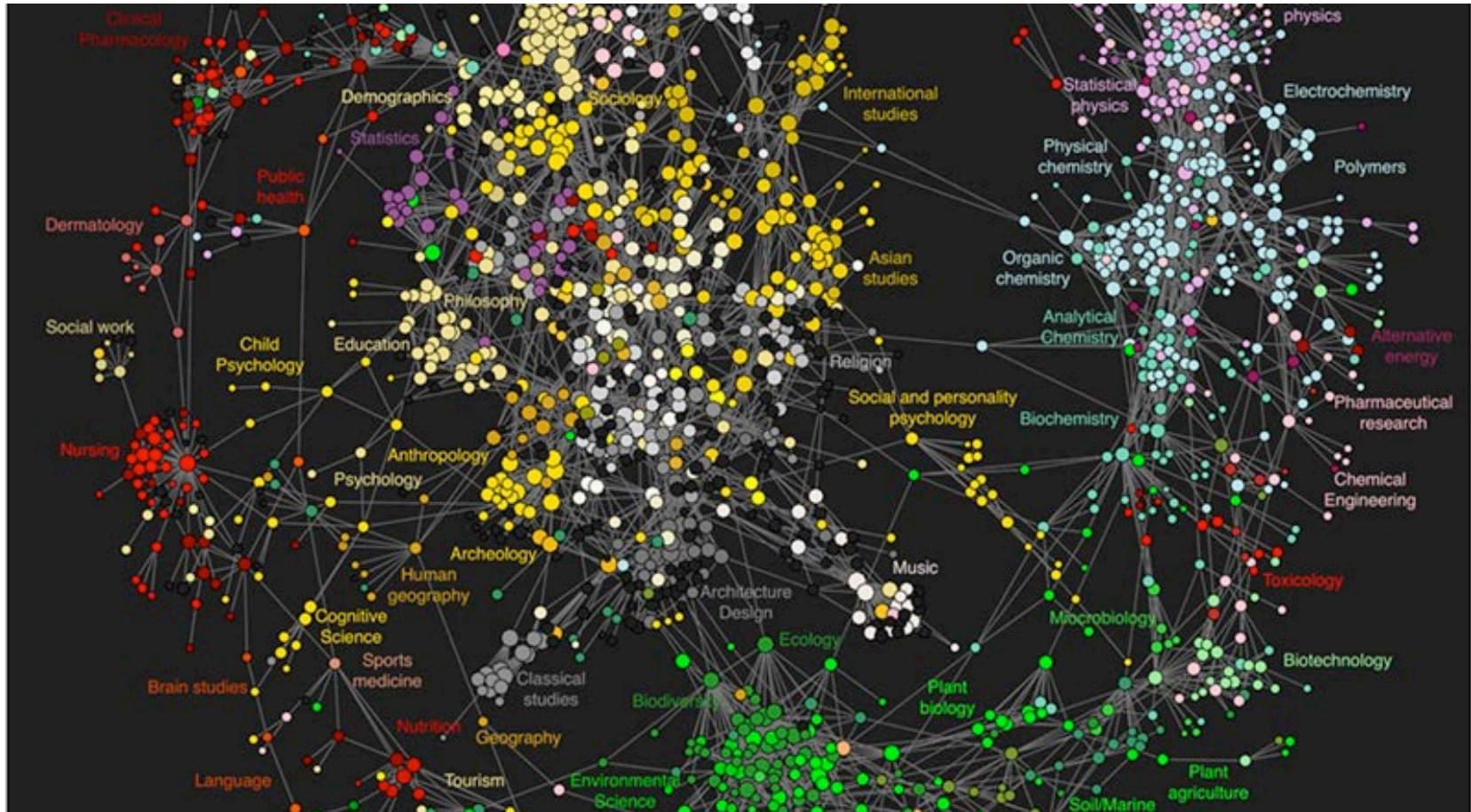
There is no one path to the school of tomorrow. Technology is rapidly breaking down school walls and letting the world in. Harnessing it is key in building tomorrow's school and students. Integrating it into the learning ecosystem is everyone's responsibility, and will ensure that our students have multiple paths to success.



New Models for Schools

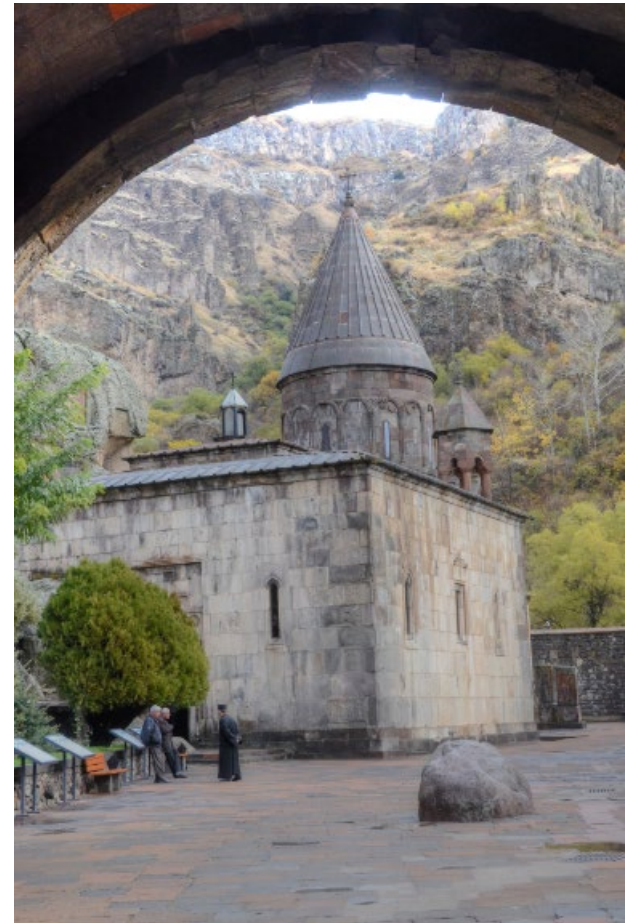


New Roles for Research



Community = Interactions

- Not simply ‘spreading the word’
- Not ‘amplification’
- But rather, the creation of our own society, together
 - emergent from the free actions of each of us
 - not based on the ideas of one (or a small number) of individuals



Open communities speak many languages





Stephen Downes

<http://www.downes.ca>