A Model of Personal Learning



Stephen Downes Mexico City May 16, 2017 • What does personal learning look like? Stephen Downes demonstrates the model he has developed over fifteen years of research on education technology and learning design. Based on gRSShopper – the software developed to run his newsletter and a series of Massive Open Online Courses (MOOCs) - Downes looks at the day-to-day routine of a personal learner with examples from his practice and a live demonstration of learning activities. Through the presentation Downes will explain the philosophy of Connectivism, a learning approach based on developing and growing personal learning networks, and will describe the ARRFF (Aggregate Remodel Repurpose Feed Forward) model of learning activities. Finally, he will offer insights regarding some key technologies on the horizon, such as server virtualization and augmented reality, and offer thoughts on the future of online learning.

A Note About Models

- With models, the answers are determined before the system or simulation is ever run...
- Eg. "Carnegie Melon University received a two-year grant for research on and development of MOOCs platforms '*intelligent enough to mimic the traditional classroom experience*'."

http://unescochair.blogs.uoc.edu/blog/2014/06/25/a-goal-for-google-andcarnegie-mellons-mooc-research/ What's missing in the standardbased modelsbased approach is what we used to think of as BAD



- Bricolage the doesn't allow or cater for bricolage.
- Affordances leverage the technology to improve learning and teaching.
- Distribution implications for the institutional practice of elearning."

http://davidtjones.wordpress.com/2014/03/31/bim-and-bad/

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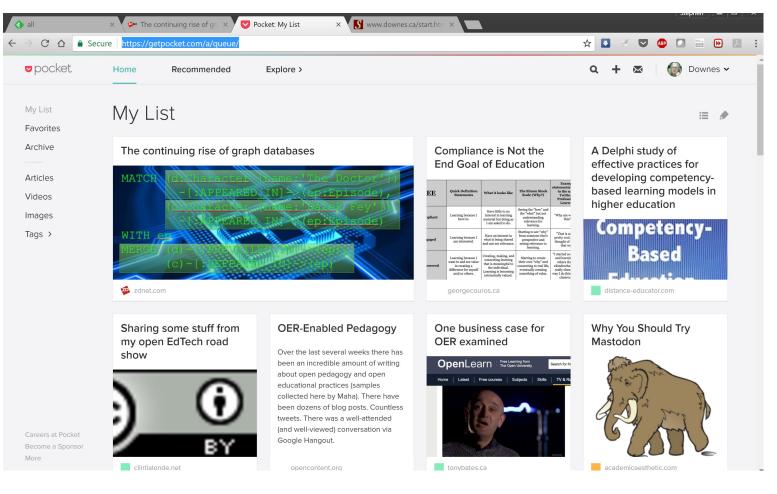
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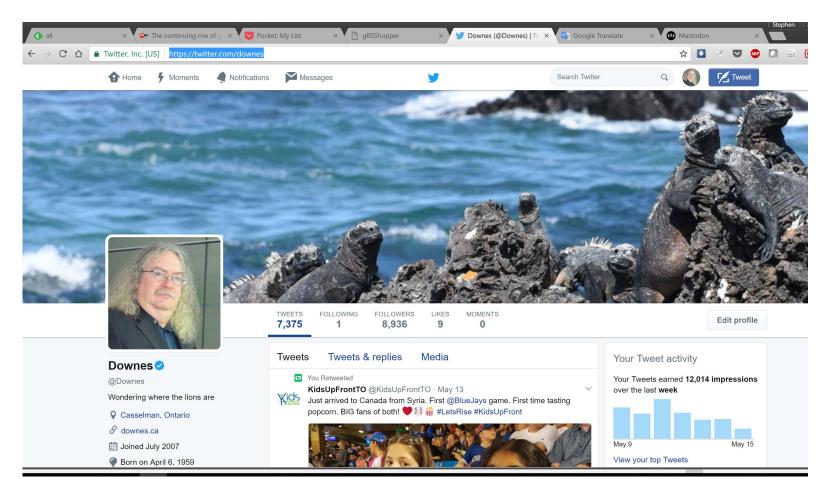
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> Ed - Journals	3	internet providers that guarantee net neutrality. Net neutrality is an admittedly
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	т	all content equally. As a concept it's a bit easier to explain using the negative

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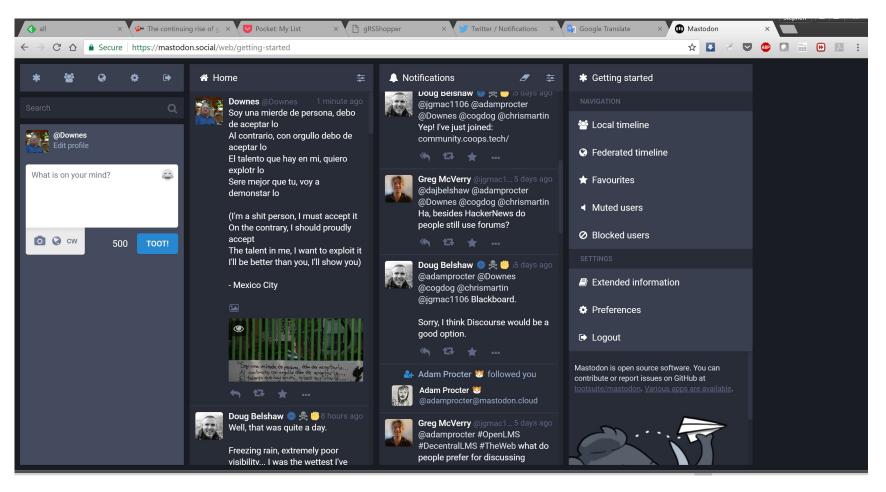
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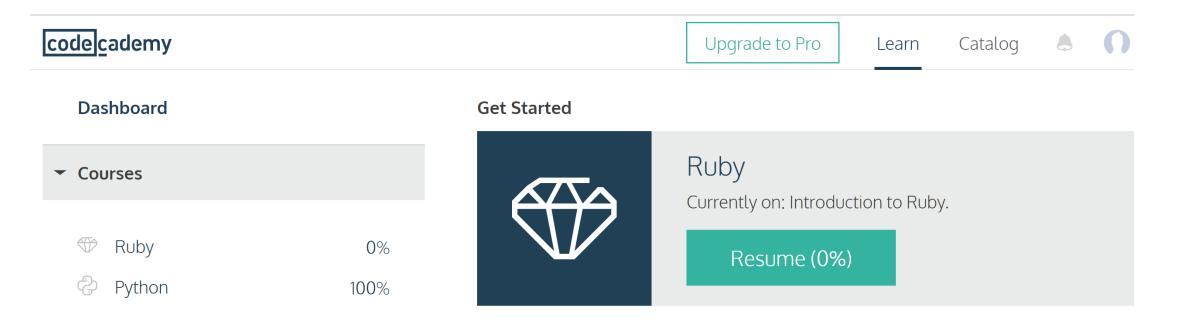


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Learning



Continue where you left off in <u>Ruby</u>. Next up is Introduction to Ruby.

https://www.codecademy.com/learn



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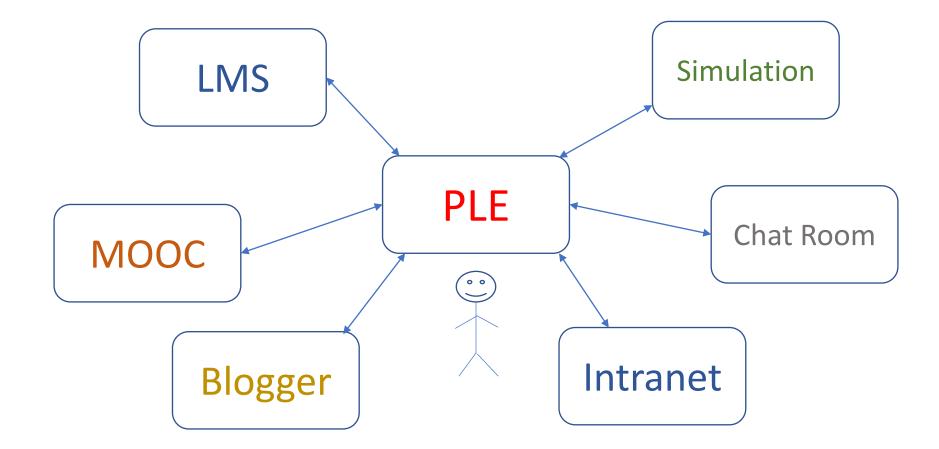
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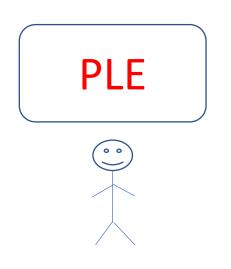
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Overview of the Concept of PLEs

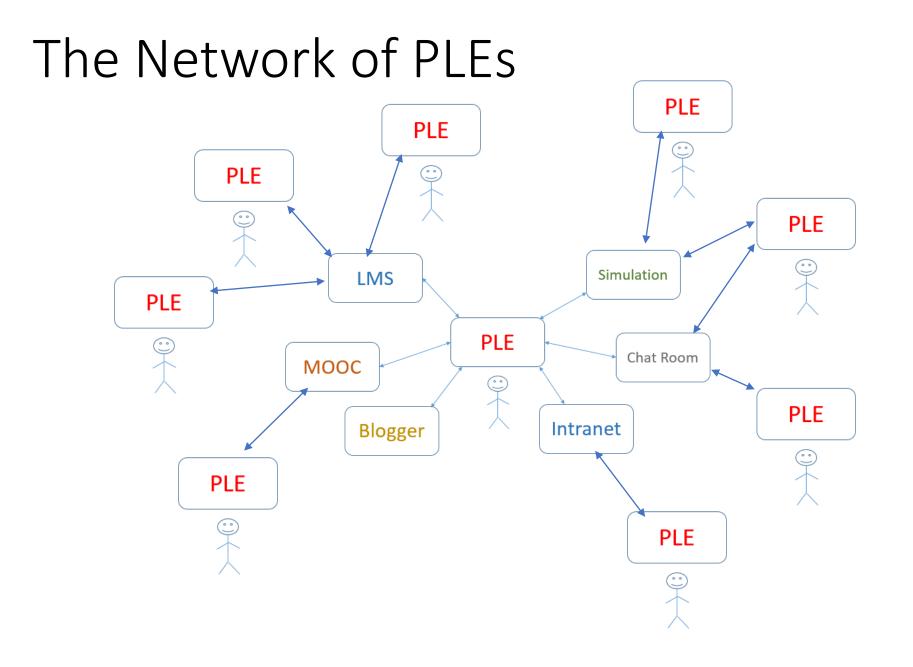


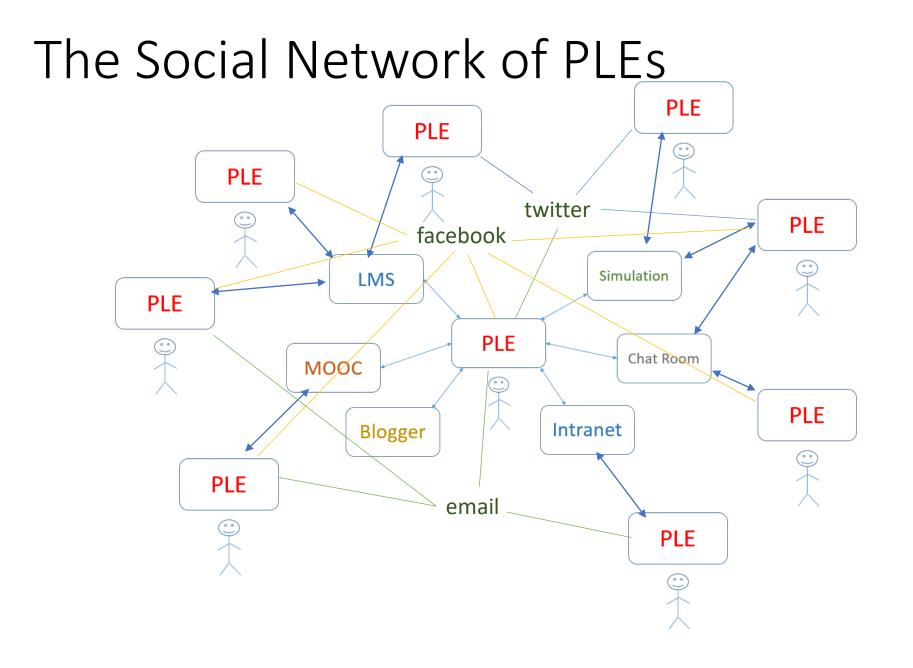
Access to many services in one personal environment

Properties of the PLE...

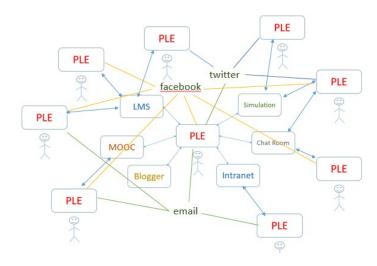


- What information should it record?
- Who owns the data? How private is it?
- What should it *do*?
- What would a person do with it?
- Where, exactly, is a PLE located?





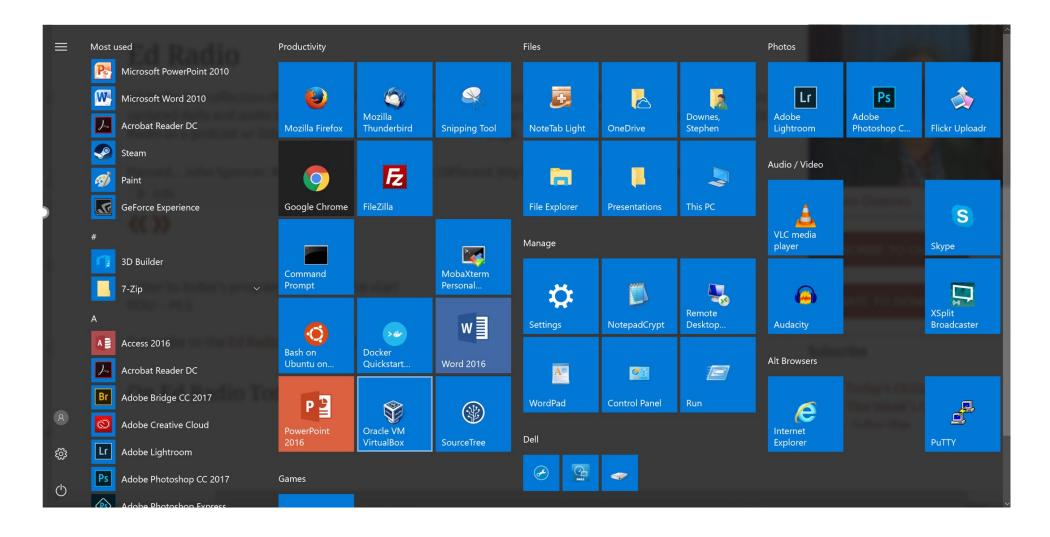
Properties of the Network...



- How do people find each other? Services?
- How do they communicate? What do they share?
- How does a single PLE work with services?
- Do we need centralized registries?

Why a personal learning environment?

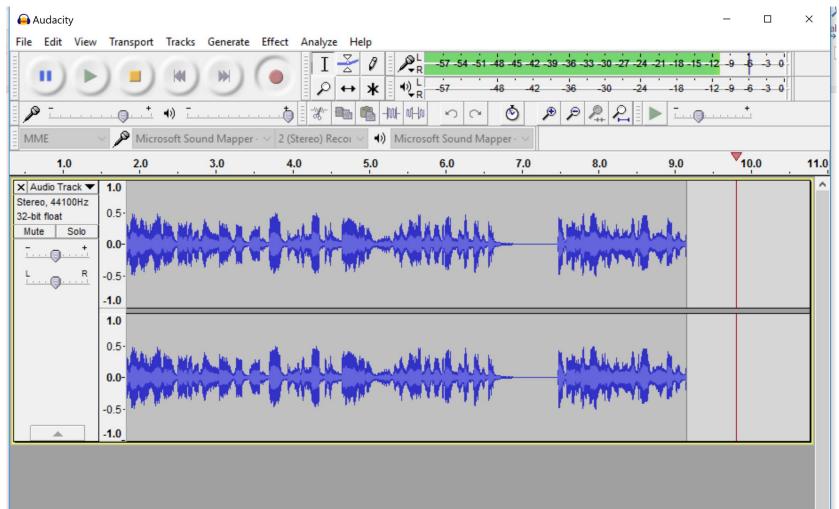
- What is the *value proposition* for a PLE?
 - Note: value isn't what you can *do*, it's how you benefit
 - This is usually stated in financial terms (earn more, cost less)
 - Can also be stated in terms of quality: faster, bigger, better
 - And can be non-financial goods: satisfaction, happiness, memories



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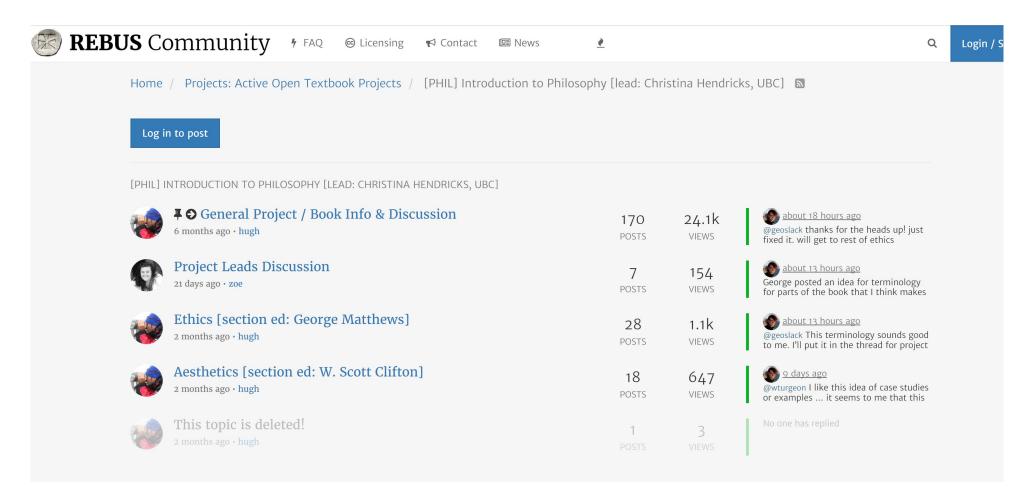
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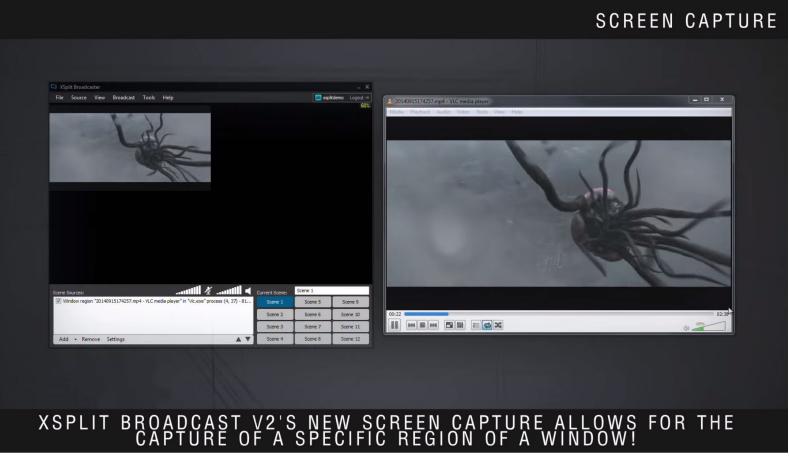
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xAPI Profiles Orientation Document	Aaron Silvers	21 Apr 2017		0 0	
Intro to Phil : Plan of action	Hugh McGuire	20 Apr 2017		0 0	
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CSPS Technology Integration Projects Business Case	me	31 Mar 2017		0 0	
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Stephen Downes



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Half an Hour

A place to write, half an hour, every day, just for me.

Saturday, April 22, 2017

How We Know

In my view, knowledge is a subjective feel, but there's a nice story behind it.

The subjective feel appears circular: I say that I know when I can't not know.

The story lies in the cause of this subjective feel: to know is to recognize.

Recognition is involuntary, hence the modality of 'can't not know'. It is also non-grounded. The subjective feel is the knowledge.

It's like recognizing a person. Your mother walks through the train station and you pick her out of the crowd. This recognition is not based on any particular rule or principle, not based on any essential features, not based on any inferential process.

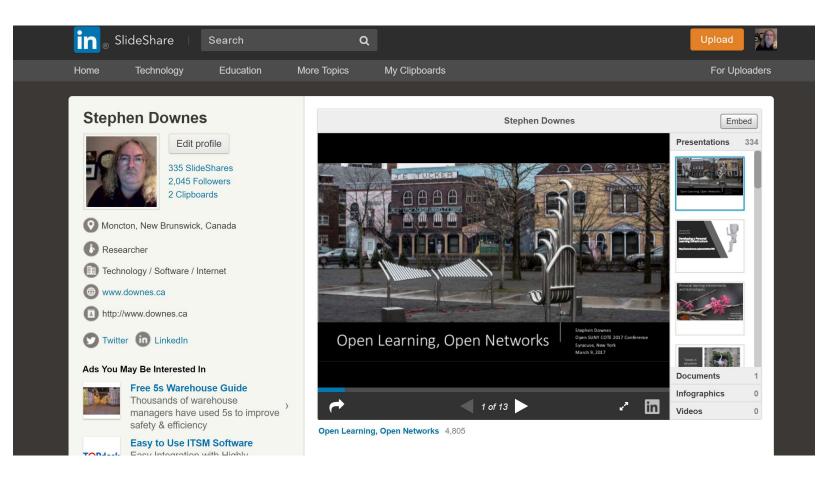
Yes, you could be mistaken in the train station - an alien disguised as your mother may have appeared instead. But your knowledge is not at fault. You know what your mother looks like; that's where your certainty lies.

http://halfanhour.blogspot.com



Stephen Downes

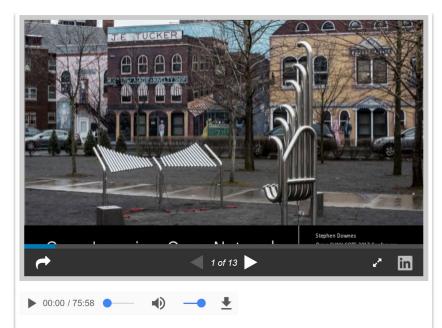
Writer, philosopher, educator, journalist. Specialist in online learning and new media technologies. For social networks, papers, presentations and newsletter please visit my home page at http://www.downes.ca



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Open Learning, Open Networks



SUNY Open COTE 2017, Syracuse, New York, .

Open online learning entered the mainstream with the growth and popularity of MOOCs, but while interest in open online courses has never been greater MOOCs represent only the first step in a broader open learning infrastructure. In this keynote Stephen Downes will describe several key innovations shaping the future of open learning: distributed social networks, cloud infrastructures and virtualization, immersive reality, and personal learning environments. The talk will outline the challenges this evolving model will pose to learning providers and educational institutions and recommend policies and processes to meet them. Link to hosted video.

Q

Keynote, Mar 09, 2017.

Downloads: [Slides] [Audio] [Conference Link]

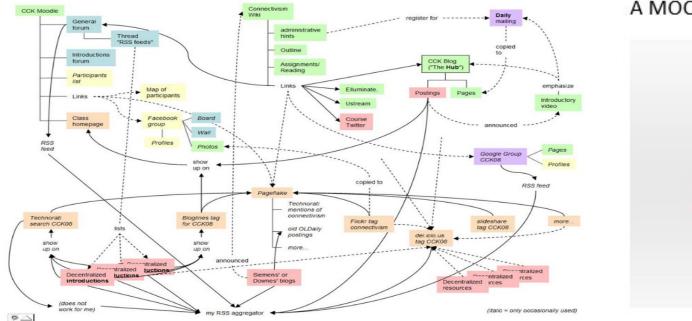
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New learning Paradigms

Path	Field
Course	Curriculum (as in 'mapping')
Sequence / Prequisite	Core / periphery / foundation
Movement / covered	Inquiry / Discovery / Gaps
Threshold / Levels	Coverage / Construction
Positioning – first / last	Grouping / Clustering
Objective / target	Serendipity / emergence
Leading / Led	Centred

Carrie Paechter, Metaphors of Space in Educational Theory and Practice http://www.tandfonline.com/doi/pdf/10.1080/14681360400200202

The Connectivist MOOC (cMOOC) Design

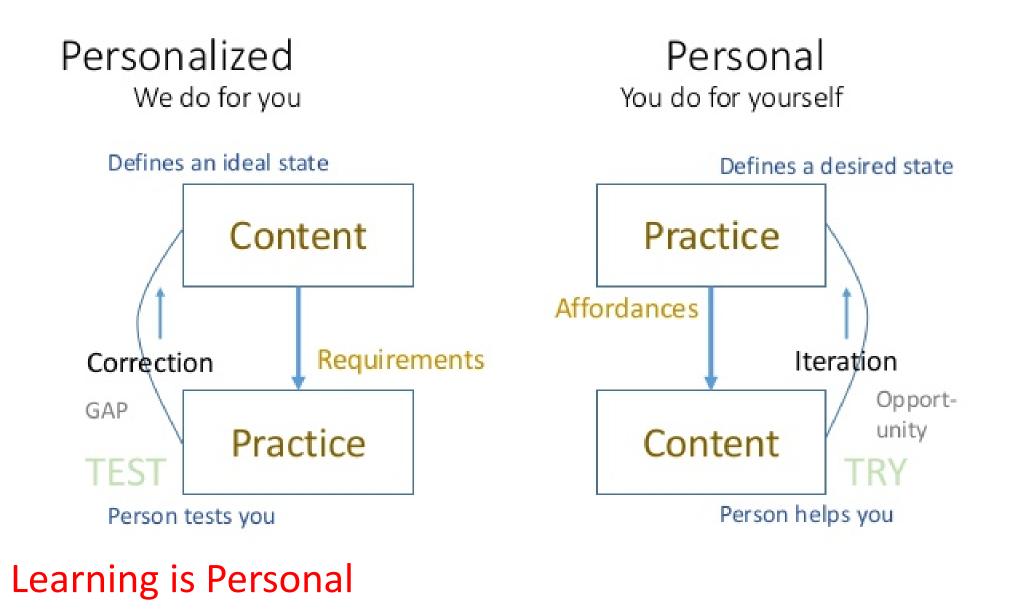


A MOOC is a Web, not a Website

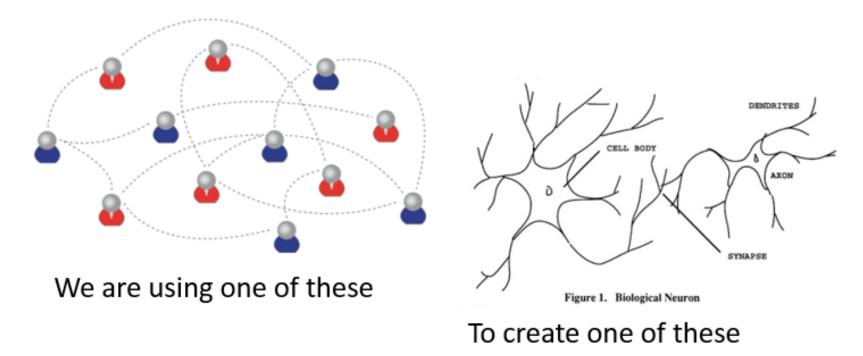


Instead of seeing a course as a series of contents to be presented, a course is a network of participants who find and exchange resources with each other

- An initial structure is developed and 'seeded' with existing OERs
- Participants encouraged to use their own sites to create or share resources
- A mechanism (gRSShopper) is employed to connect them



Learning Outcomes



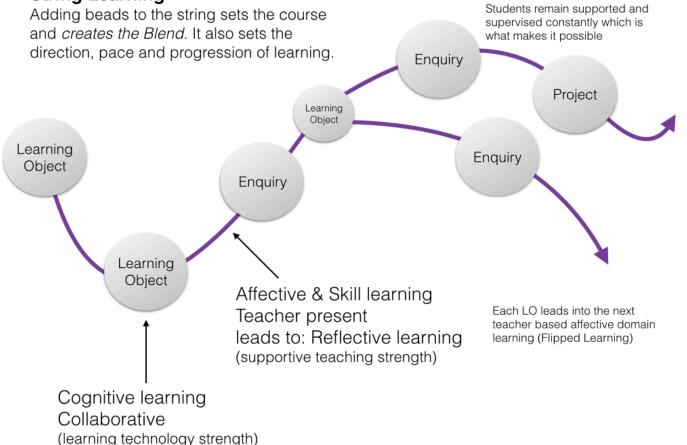
- Learning a discipline is a total state and not a collection of specific states
- It is obtained through immersion in an environment rather than acquisition of particular entities
- It is expressed functionally (can you perform 'as a geographer'?) rather than cognitively (can you state 'geography facts' or do 'geography tasks'?)

Extended Cognition

- More than neural networks?
 - Embodied learning, stigmergy, extended memory (Andy Clark)
- Is my library a part of my cognition?
 - Which books?
- The problem of explanation

Cloud Environments

String Learning



https://www.linkedin.com/pulse/string-learning-blend-objectsgeoff-rebbeck?articleId=6932346018329088240

Cloud Environments

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Cloud Environments

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ESCAPE THE APP DEPENDENCY MATRIX

Eliminate the "it works on my machine" problem once and for all. Package dependencies with your apps in Docker containers for portability and predictability during development, testing, and deployment.

WORKS WITH ANY STACK

Deploy both microservices and traditional apps anywhere without costly rewrites. Isolate apps in containers to eliminate conflicts and enhance security.

BETTER TEAM COLLABORATION

Streamline collaboration between developers and operators and get features and fixes into production faster. Productive developers doing frequent releases unleashes creativity to build awesome software.

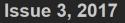
Learning Record Store

xAPI Statement Viewer

Statement List					Get State	ments ${\cal G}$
Query Option	S					>
Show 25 🔻	entries				Search:	
Timestamp ↓	Actor Name	Verb 🕼	Object Name ↓↑	Object Type	Authority Name	
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/xAPI-Dashboard	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/#reporting	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/#	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/#scorm	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/#mobile	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/#reporting	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/#aptools	Activity	tom	٢
in 7 minutes	zlw7m	clicked	http://adlnet.github.io/xAPI-Dashboard	Activity	tom	٢
in 6 minutes	zlw7m	clicked	http://adlnet.github.io/xapi-statement-viewer	Activity	tom	٢
in 6 minutes	zlw7m	clicked	http://adlnet.github.io/#Irstools	Activity	tom	•

http://adlnet.github.io/xapi-statement-viewer/

Cloud Services







JUST RELEASED

Wolfram Data Repository »

Building on the Wolfram Data Framework and the Wolfram Language, the Wolfram Data Repository provides a uniform system for storing data and making it immediately computable and useful. It is built to be a global resource for public data and data-backed publication.



Read Stephen Wolfram's Data Repository blog.

Stephen Downes http://www.downes.ca



http://www.downes.ca/presentation/389