

The importance of faculty in the higher education experience

Stephen Downes

for Instituto Tecnológico y de Estudios Superiores de Monterrey

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<http://www.downes.ca/presentation/387>

1. New Forms of Learning

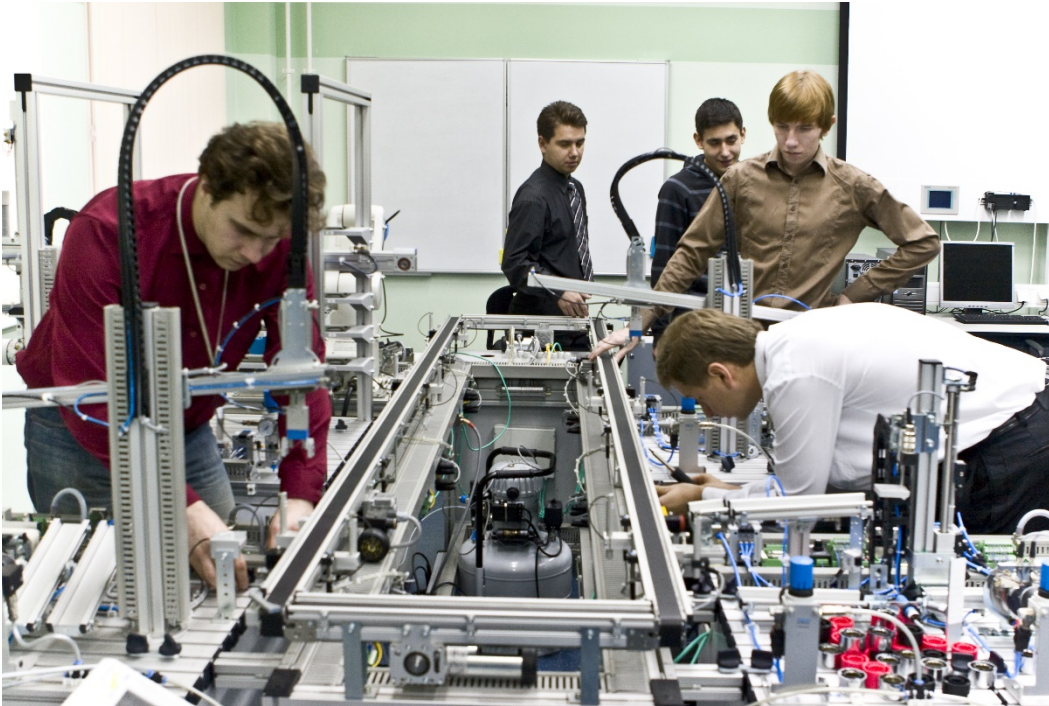


Image:
[https://en.wikipedia.org/
wiki/Education](https://en.wikipedia.org/wiki/Education)

We have entered the technological era

- Tools include learning management systems
- Digital learning resources and eBooks
- Online discussions, conferencing, collaborative authoring



Image: <https://en.wikipedia.org/wiki/Education>

We have embraced 21st Century pedagogy

- It's not just about transmitting content
- We employ active learning methodologies
- Project and problem-based learning
- We create challenges & learners take control,
 - eg. service learning, entrepreneurship, etc

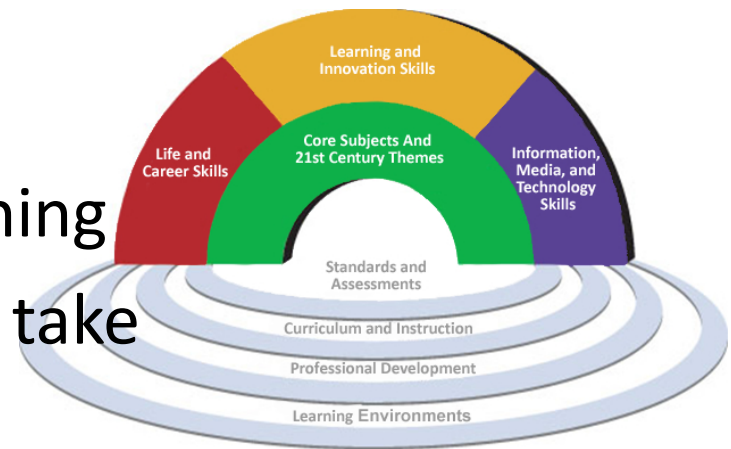


Figure 1 - P21 Framework for 21st Century Learning

https://en.wikipedia.org/wiki/21st_century_skills

<http://www.p21.org/our-work/p21-framework>

<http://www.crlt.umich.edu/tstrategies/tsal>

2. The Changing Shape of Learning



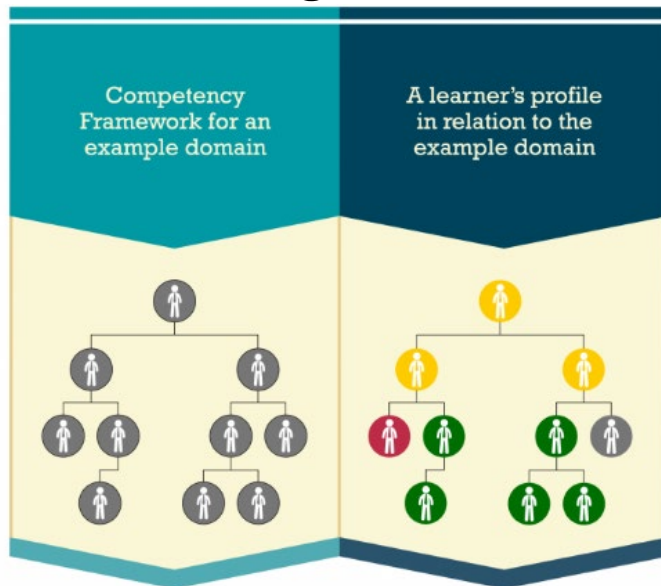
Our education system still resembles the traditional model, but this is now changing



Images: <https://www.youtube.com/watch?v=3OqslY9o35M> ;
https://en.wikipedia.org/wiki/Cultural_identity

We were focused on courses, programs, disciplines, but now

- On the one hand, looking at microcredentials
- On the other hand, looking at overarching competencies like digital literacies



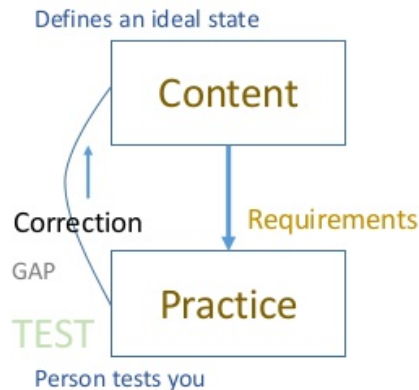
Competency and Skills System

<https://www.adlnet.gov/introducing-the-next-big-thing-cass/>

We were looking at same standardized package for every student, now

- Want to adapt learning to each individual need

Personalized
We do for you



Personal
You do for yourself



<http://www.downes.ca/post/65065>

<http://teachweb2.blogspot.com/2010/08/personal-vs-personalized-learning.html>

The old institutional silos still remain

- In Canada, for example, the process of 'articulation' remains a challenge
- Credentials created in one country are not accepted in another country
- Multinational initiatives like the Bologna process are complex and difficult

http://ec.europa.eu/education/policy/higher-education/bologna-process_en.htm

<http://opencontent.org/blog/archives/3393>



<https://www.linkedin.com/pulse/classic-example-how-difficult-fight-silo-mentality-become-don-capener>

We have not advanced significantly in assessment

- Tests and essays are not adequate, looking for genuine learning
- Issues around recognition of learning



<http://www.centerforpubliceducation.org/Main-Menu/Instruction/High-stakes-testing-and-effects-on-instruction-At-a-glance/High-stakes-testing-and-effects-on-instruction-Research-review.html>

<http://capla.ca/what-is-rpl/>

Image: [https://en.wikipedia.org/wiki/Test_\(assessment\)](https://en.wikipedia.org/wiki/Test_(assessment))

3. New Technologies Changing the Landscape



<http://teachonline.ca/tools-trends/exploring-future-education/2016-look-future-online-learning-part-1>

<http://halfanhour.blogspot.com.tr/2016/03/the-2016-look-at-future-of-online.html>

Image: https://en.wikipedia.org/wiki/High_tech

Machine learning and artificial intelligence

- Not simply for adaptive learning
- The idea is to create an *environment*
- We talk about predictive analytics as though finishing a course is the problem
- The real future is in the quantified self



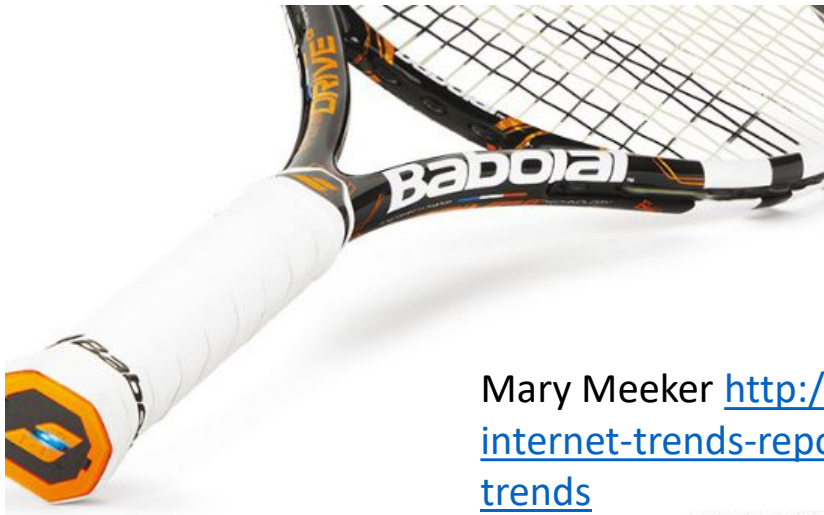
<http://quantifiedself.com/>

http://www.wtec.org/loyola/kb/c1_s1.htm

<http://research.microsoft.com/en-us/um/people/cmbishop/prml/>

Handheld and Mobile Computing

- The future of learning isn't the mobile phone
- It's in the *integrated* performance support system



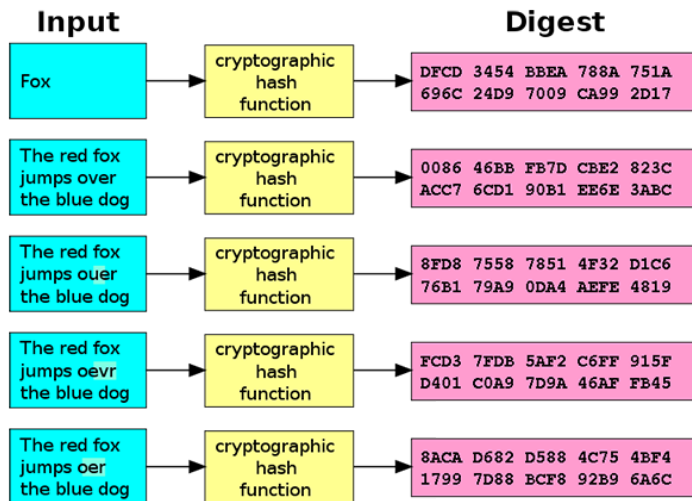
Mary Meeker <http://www.slideshare.net/kleinerperkins/2016-internet-trends-report?ref=http://www.kpcb.com/internet-trends>

PHOTO COURTESY B

<http://fortune.com/2014/05/27/a-tennis-racquet-that-isnt-just-strung-but-wired/>

Badges and Blockchain

- Open Badges initiative and microcredentials
- Proposals to use the blockchain to record credentials



<http://dmlcentral.net/blog/doug-belshaw/peering-deep-future-educational-credentialing>

<http://www.downes.ca/search/blockchain>

[Audrey Watters:](#)

<http://hackeducation.com/2016/02/25/blockchain-edu1>

<https://magazine.backfeed.cc/dao-alive-now-let-evolution-begin/>

Internet of Things

What happens when companies know the state of all your devices?



<http://www.cbc.ca/news/canada/car-tracking-devices-spark-privacy-concerns-1.1366687>

Games, Sims and Virtual Reality

‘Gamification’ – adds game elements to learning

‘Serious Games’ – employs a game to facilitate learning



<https://badgeville.com/wiki/Gamification>

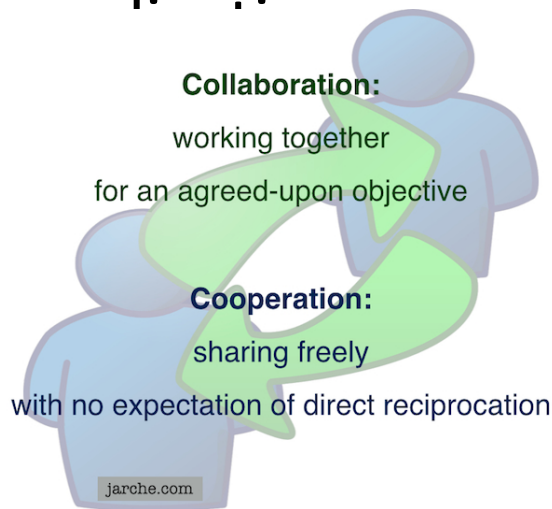
<http://donaldclarkplanb.blogspot.ca/2014/11/oculus-rift-freezers-smilers-grippers.html>

<http://www.downes.ca/search/oculus>

<https://blog.teachlr.com/surviving-gamification/>

Translation and Cooperative Technology

- Communication is and will be everywhere
- The future lies in cooperation, not collaboration
- Cooperation includes machines – think distributed



<https://cyber.law.harvard.edu/research/cooperation>

Image: <http://jarche.com>

<https://www.imsglobal.org/specs/ltiv1p0/implementation-guide>

<http://www.tomsitpro.com/articles/docker-enterprise-hub-orchestration,1-2375.html>

4. Learning in the Future



Image: <http://evertonpom.blogspot.com/2013/10/the-future-of-technology-in-education.html>

Learning contents

- Automatically produced, free, open and digital
- Addressed to specific needs or competences

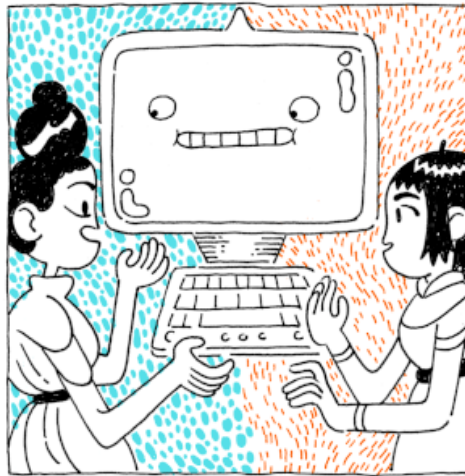
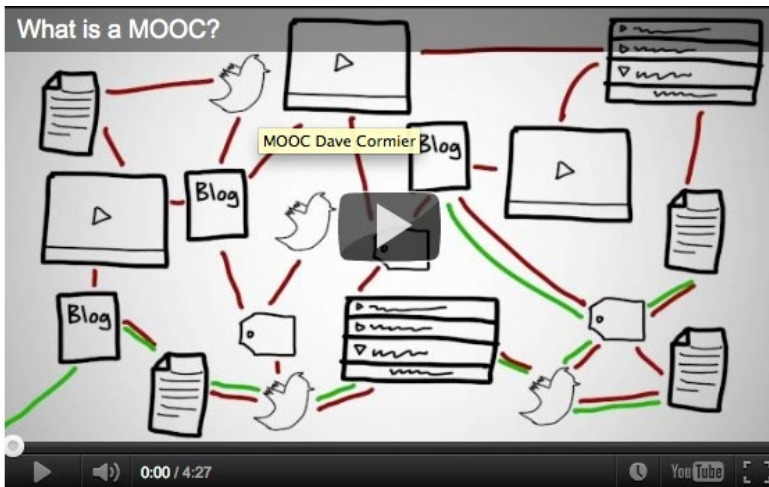
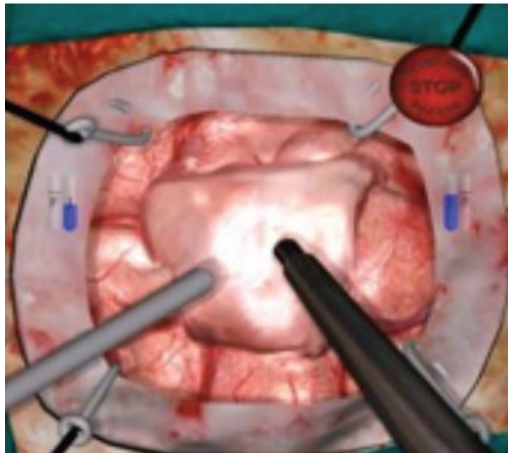


Image: <https://www.flickr.com/photos/opensourceway/6554315179>

Learning Environments

- Not just MOOCs; Complex, linked to tools, distributed
- Based on 21st century learning and scientific methodologies



<http://www.tonybates.ca/2012/03/03/more-reflections-on-moocs-and-mitx/>

<https://scholarworks.iu.edu/journals/index.php/ijdl/article/view/20137/28269>

Assessment and recognition

- May involve microcredentials, variety of recognition
- Based on actual evidence
- Feed directly into employment or project support tools

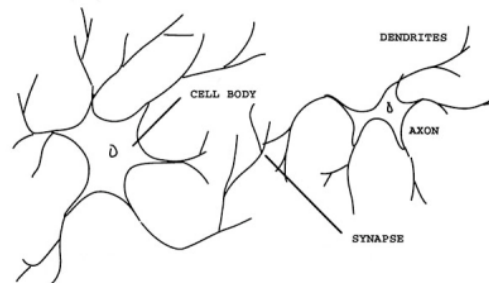
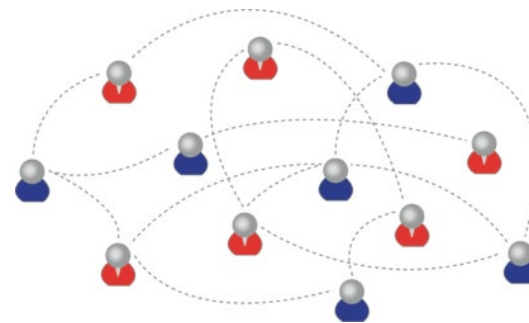


Figure 1. Biological Neuron

We recognize this



By performance in this

5. The New Role for Faculty



The challenges

- Students don't need contents any more
- Students don't need experts any more
 - We *want* them to figure things out, translate, try activities, work with others
- Engaging = Immersive + Wanted
 - We have to *want* to be there
 - And we have to *believe* that we're there

<http://www.sciencedirect.com/science/article/pii/S1319157813000372>

<http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Columns/Active.pdf>

<http://www.poynter.org/2016/the-associated-press-will-use-automated-writing-to-cover-the-minor-leagues/419489/>

Think about your own learning...

- You need input that is relevant, usable and interactive
 - It's all about context
 - The airplane cockpit is no place for a two week course
 - Learning will be like water or electricity – or text



<http://campustechnology.com/articles/2014/06/09/report-students-expect-future-universities-to-be-flexible-accessible-career-oriented.aspx>

Think about your own learning...

- To learn is to practise and reflect
 - You need support, sometimes, but mostly you need examples and models



Think about your own learning...

- To teach is to model and demonstrate
 - Showing how to be a practitioner in the field – *be* a carpenter, a physicist, etc...
 - Show how you try, fail, learn, etc



<http://pertinenciaeducativa09.blogspot.ca/2009/10/educamp-colombia-aprendizaje-en-un.html>



<http://www.flickrriver.com/photos/qadmon/3106848811/>

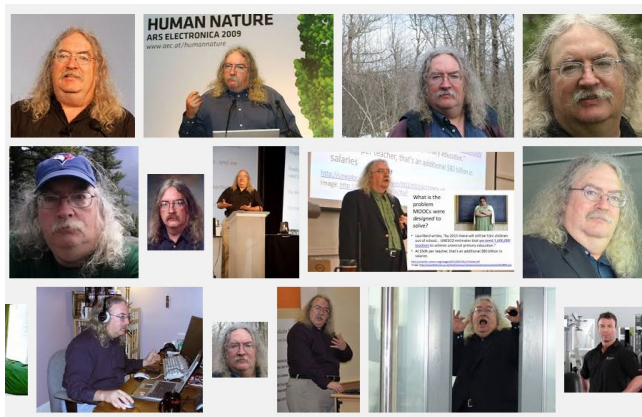
<http://www.irrodl.org/index.php/irrodl/article/view/884/1677>

The New Institutional Perspective

- From Management to Meaning
 - Don't do things *to* people, do things *with* people, help people *do things*
 - If we have to ask “how do we motivate people” then we're taking the wrong approach – Kohn
 - “Knowledge sharing is your job” – Buckman
 - Provide opportunities for autonomy, mastery, purpose – Pink

The New Model of Work and Learning

- Sharing - create linked documents, data, and objects within a distributed network
- Contributing - employ social networking applications of the Web to facilitate group communication
- Co-creating - work through networks that facilitate cooperative group work toward common goals



Stephen Downes

<http://www.downes.ca>