Teaching and Learning 2018
Teaching and learning for the work of the future

Dr. Thomas Carey
Visiting Fellow, Institute for Teaching & Learning Innovation
“What is certain is that the future is uncertain... What is important is to build resilient and adaptable labour markets that allow workers and countries to manage this transition with the least possible disruption, while maximizing the potential benefits of the three mega trends [demographic change, technological progress, globalization].”

Future of Work and Skills, OECD 2017
Our graduates already shift career paths
e.g. STEM Majors
e.g. non-STEM Majors
Disruption is already here…

DIGITAL DISRUPTION AND THE LAW

Balancing tradition with innovation in a fast-changing industry is a challenge for legal educators

Online lawyers and digital disruption is shaking up the legal profession.

How digital disruption is changing the game for small law firms
The Coming Skills Revolution

Humans Wanted

How Canadian youth can thrive in the age of disruption
And the deepest changes are yet to come…
LIVING PRODUCTS ARE AT THE CORE OF THE TRANSFORMATION

A combination of product features, services and (new) experiences

Core of the change – Connected and Smart

Business models – Combination, Disrupted, AaS

Re-invention of the product:
• Hardware – Container
• Software – Continuous reconfiguration, value
• UI – Hyper-personalized, context based

Ecosystems – Drive competition vs. features
We can try to project out from current trends....

“All our students should develop Capability in

*Humanics*

*(data analytics + human-centred design)*”

Joseph Aoun
President
Northeastern University
But most new workplace roles will require new capabilities…

“…new learning approaches are needed… that boost innovation in manufacturing by improving… **systems thinking capability**”

*Learning Factories for research, education and training
5th Conference on Learning Factories 2015*

Bottom Line: our graduates need to be better prepared to:

- adapt to new workplace roles, involving...
- work with knowledge that doesn't yet exist,
- using knowledge practices that don't yet exist,
- with job definitions that don't yet exist...
- as a new graduate attribute!
UQ is changing the way higher education is imagined and experienced

Game-changing graduates
The workforce is evolving at a rapid rate, presenting our students with both challenges and opportunities. Our graduates must have the knowledge and skills to compete for current and emerging roles, and be able to anticipate job opportunities that don’t yet exist – many of which they will create for themselves.

How are we doing? 5 minutes to discuss with a neighbour
Bottom Line: our graduates need to be better prepared to:

- adapt to new workplace roles, involving…
- work with knowledge that doesn’t yet exist,
- using knowledge practices that don’t yet exist,
- with job definitions that don’t yet exist…

Can our teaching and learning environments do this?
Example: Developing Innovation Capability

HIST 2390 Class notes for Mar 28, 2018

Overview: When you think about future employment, you know that employers will be interested in what you have learned at Kwantlen. They’ll be interested in how what you learned will translate into skills and knowledge you can put to work for them (and develop further!).

Preparation:
- Skim the attached overview on Building an Innovation-Enabled Workforce for B.C. (to be discussed further in the class session)
Learn from your experiences


This process allows you to unpack any experience to consider why it was challenging, what you did to handle the challenges, and what the consequences were. Most importantly, it gives you a framework for understanding what you have learned from each experience.

Watch UQ student Emma reflect on her experiences using the SEAL process in this video from EMPLOY101x "Unlocking your employability".
The SEAL process of self-reflection

**SITUATION**
What was the new experience or challenge you faced and what happened to you?

**EFFECT**
What impact did it have on you and what were the consequences of this impact?

**ACTION**
What action did you take to deal with the new situation and any challenges, and why did you do this?

**LEARNING**
What did you learn from the experience and how will you apply this in the future?
Example: Developing Innovation Capability

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Preparation:
- Skim the attached overview on Building an Innovation-Enabled Workforce for B.C. (to be discussed further in the class session)
- Watch this 7 minute video about the method we are planning to adapt to help you think about and demonstrate how your skills and knowledge will translate into the workplace. There’s more about the SEAL process in the attached 3-page handout.
- Come prepared to discuss your experiences with innovations in your courses this term, such as the History GO! assignment in HIST 2390
Reflections are mapped to a Capability specification...

for Workplace Innovation as a Social Process (and equally applicable to other roles as community members and global citizens...).
Reflections and other activities are added to ePortfolios...

**What is an ePortfolio?**

An ePortfolio is an online collection of evidence that shows your learning journey over time. An ePortfolio may be used in your program or discipline to track your development of professional skills or graduate attributes. UQ uses the Chalk&Wire ePortfolio system.

The ePortfolio also includes a **Collaboration Workspace** tool. Workspaces are collaborative or shared environments that contain portfolios, artefacts and discussions.

If you are using an ePortfolio in your course or discipline you also have access to 'my ePortfolio': a tool to create new personal ePortfolios to showcase yourself as a professional.
All enabled by new academic-workplace collaborations
Specifications developed by a *Capability Innovation Network*

Preparing our workforce for the *Future of Work* is a shared challenge:

- Academic institutions preparing graduates…
- Workplace organizations preparing their workforce…
- Common challenge is to define, shape and develop capabilities

Requires a new form of academic-workplace collaboration
All enabled by new academic-workplace collaborations

Workplace Partners
- Craig Thornton, Hatch Ltd.; Mississauga ON
- Karel Vredenburg, IBM Canada; Markham ON
- Andrea Ross, Shopify; Ottawa ON
- Dhaval Shah, Bank of Canada; Ottawa ON
- Cassandra Bernard, CMHC; Ottawa ON
- Oswald Zachariah, OMAFRA; Guelph ON
- Carol McAulay, York University; Toronto ON

Academic Partners
- Vicki Lowes, McMaster University
- David Potter, McMaster University
- Tania Del Matto, University of Waterloo
- Colin Furness, University of Toronto
- Eileen DeCourcy, Humber College
- Richard Wiggers, Mohawk College
- Valerie Lopes, Seneca College
- David Trick, David Trick and Associates; Toronto ON

Developmental Evaluation Partners
- Cathexis Consulting, Toronto ON

Sharon Brodovsky, Liz Martin
+ Course content targeted to Workplace Innovation

- Teaching for skills, knowledge etc. on Workplace Innovation
  - PSYC 4900: Psychology Research in Workplace Innovation (Spring 2018)
  - DESN 2004: Design Thinking and Innovation (Fall 2018)
Course content targeted to Workplace Innovation

Teaching for skills, knowledge etc. on Workplace Innovation

- PSYC 4900: Psychology Research in Workplace Innovation (Spring 2018)
- DESN 2004: Design Thinking and Innovation (Fall 2018)
- Humanities Perspectives on Workplace Innovation (Spring 2019?)

Prepare students for transfer to external workplaces:
- EDUC 1100, EDUC 4100

Work-integrated learning (Students as Partners in Knowledge, Learning & Innovation)
Same approach applies to other future work capabilities

Learning analytics

Key priorities

2. Enabling students to access and interpret educational data

We develop student-centred and user-friendly visualisations to enable students to develop a better...
for Mindsets: we must use Faculty Work in Teaching as a Model

*Good teaching cannot be reduced to just technique: good teaching comes from the identity and integrity of the teacher:*

*How we teach is a key part of what we teach*

How can our UQ educators engage with innovation in teaching & learning to be models for our students’ engagement with innovation in the workplace (and in their other roles…)?
Thank you

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What Capability for Innovation Should Every Graduate Develop?
Preparing Graduates for Future Knowledge Practices
Is the Future of Liberal Arts Programs “K-Shaped”?

Four ways PSE can treat the classroom as an innovative workplace
Industry 4.0: accelerating evolution in employee capability