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Ontario's Distance Education & Training Network

Le réseau d'éducation et de formation à distance de l'Ontario

A 2016 LOOK AT THE FUTURE OF ONLINE LEARNING

Leaders and Innovators – Framing Leadership

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This presentation

- Shares ten sets of information to help you understand the current state of play for online learning in Canada with reference to the rest of the world.
- Suggests we should focus less on the uniqueness of online learning and more on the future of learning
- The real challenge is how teaching and learning is evolving and changing.

1. Online trends

- **Most recent US data:**
  - 2.8 million college/university students are studying their program entirely online – more than the total number of students enrolled in Canadian colleges/universities.
  - In addition, 5.8 million students will register in one or more fully online course as part of their program.
  - Online learning demand growing at 3.9% annually.
  - More people studying online than living on campus in the US.
  - More undergraduates enrolled in an online class than there are graduate students enrolled in all Masters and Ph.D. programs combined.
- **No equivalent data sets for Canada** – best guess is that between 50% and 75% of Canadian post-secondary students have one or more online course(s) in their program profile.

1. Online trends continued

- Students are clearly accepting online learning.
- Faculty are not as sure:
  - The percentage of academic leaders rating the learning outcomes in online education as the same or superior to those in face-to-face instruction is now at 71.4%.
  - Only 29.1% of academic leaders report their faculty accepts the “value and legitimacy of online education”.
  - Among schools with the largest distance enrollments, 60.1% report faculty acceptance, while only 11.6% of the schools with no distance enrollments do so.

2. Effectiveness of online learning

- The issue: is online learning as good as face-to-face?
  - First, how good is face-to-face?
  - Second, face-to-face versus online:
    - No significant difference in learning outcomes between face-to-face and online (see www.nosignificantdifference.org).
    - Some online courses as superior in terms of student engagement and learning outcomes to face-to-face classes - it is all about design.
    - 17% of academic leaders in the US see online learning as somewhat or as superior to face-to-face.
- Design is the key – all learning experiences can be designed to better engage, involve and produce better learning outcomes.
- There is no inherent excellence in one form of teaching/learning versus another.

3. Blended learning

- Blended learning is the norm in colleges and universities.
- Instructors are using video, audio, web resources, and open educational resources to share, challenge, engage and teach.
- Students are using web searching, translation engines, online simulations, serious games, social media, peer learning networks and iTunes University / OER resources to support their learning.
- LMS systems are used for assignment handling and learning materials sharing.
- The “flipped classroom” is also starting to emerge:
  - Peirce College, an institution in Philadelphia that caters to adult learners, allows its students to switch back and forth between attending class in person or online, based on which is more convenient in any given week.
  - The flexible delivery model will be offered across all of the college’s program offerings by September 2016.

4. Mobile Learning

- 87% of college and university students use a laptop on a regular basis for their studies.
- M-learning using laptops, phones, tablets, phablets and wearable devices is growing fast – in 2014, 3.6 billion cell phone subscribers in the world – around 50% of the world's population.
- Wearable technologies – 232 million devices sold in 2015, for a total value of $22.7 billion.
- Demand for m-devices outstrips demand for desktop devices and are now the tool of choice for students.

What students do with their devices…

- Access the learning management system for the course(s) they are taking, especially when this is a key feature of the system.
- Use online collaboration tools.
- Use the devices (especially laptops and tablets) for note-taking, searching for relevant material or checking facts, with a small percentage using lecture capture software or apps.
- Access e-textbooks, library services or readings shared online.
- Use social media.
- Access simulations and games.
- Use e-portfolios to record their work and capture competencies, assessment and feedback.

5. “Digital natives”

- A small % of students are digital natives – by far, the majority are not.
- Studies of student proficiency in the use of digital technology and tools suggest:
  - Students tend to use technology in passive and unimaginative ways.
  - HEQCO - Lopes and Dion (2015), the idea of the “digital native” who is adept in the effective and creative use of technology is a myth and, further, just like anyone developing new skills and competencies, they need instruction and support in the effective use of technology for learning.
  - Students who text in class generally recall less about the classroom content than those who do not.
- When **designed instruction coupled with intensive personal support involves technology,** it can have a positive impact on retention, completion and learning.

6. MOOCs

- Massive Open Online Courses began in Canada in 2008 with a course at the University of Manitoba offered by George Siemens and Stephen Downes.
- More people signed up for MOOCs in 2015 than in the previous three years combined.
- In total, some 35 million registered for a MOOC, with *Coursera* securing 7 million new registrations in 2015 and now occupying some 50% of the MOOC market. *FutureLearn* is now the third largest MOOC provider - they secured growth of 275% in 2015.
- Around 1,800 new courses were announced in 2015, taking the total number of courses announced since the inception of MOOCs to 4,200.
- Over five hundred universities and colleges around the world, not to mention other organizations, are now offering MOOCs.

7. e-Portfolios

- **What are they**: Secure and portable digital repositories for student work, transcripts, badges, records of achievement, etc.
- **How do they work**: Students deposit their work in work folders; colleges / universities securely transfer transcripts, certificates, diplomas, degrees, etc. to secure spaces within the portfolio. Portfolios can be shared with others (e.g. other post-secondary institutions, employers)
- **Who is doing it?** 30m students worldwide and many who are enrolled in MOOCs or CPD or Work-Based Learning (WBL).
- **So what**: New way of sharing student achievement that moves us beyond the diploma or degree. Employers increasingly asking to see these. Many systems are moving to e-portfolios supported by Blockchain technology as a "rich" transcript enabling competency assessment.
- **What next?** Pearson offering advanced portfolios and Canada's National Research Council is building an artificial intelligence supported e-portfolio.

8. Flexibility

- Two components to flexibility: (a) learner mobility; and (b) flexible routes to a certificate, diploma or degree.
- Learner mobility
  - Prior Learning Assessment and Recognition (PLAR), Work-Based Learning and Credit Transfer systems are major vehicles for mobility
  - Transnational Qualifications Frameworks (EQF, VUSSC, etc.)
  - Block Credit Transfer Agreements (2+2, 3+1, 1+3, etc.)
  - Competency-based assessments for Red Seal and apprenticeships
- Flexible routes to a qualification
  - Micro Credit – Modular, stackable courses for university transfer (Kentucky)
  - University of Wisconsin Flex Route / Western Governors University – competency-based assessment and degrees – a degree with no courses or tuition
  - MOOCs for credit
  - “Gap-based programs” for Red Seal qualifications – cooks program in BC

9. Assessment

- Two kinds of assessment:
  - Assessment *of* learning – mid terms / end of term
  - Assessment *for* learning – frequent, feedback, adaptive
- Students focused on securing appropriate end of course grades.
- Assessment changing:
  - More rigour with respect to who is taking the assessment - biometrics, style analysis in real time.
  - More use of simulation, games and immersive situational assessments using virtual reality.
  - More competency-based assessments completed online.
  - More use of machine intelligence / artificial intelligence (AI) for designing assessment and marking.
  - Growth of adaptive assessment – learning resources “adapt” to the performance of the learner using machine intelligence.

10. Quality

- Current view is very much ISO9000 + peer review
  - Institutional sustainability and readiness
  - Program design compatibility with accepted norms and standards
  - Program innovation within “normal” bounds
  - Appropriate faculty, appropriate engagement of faculty in academic decision-making
  - Appropriate student engagement and student voice
  - Appropriate assessment, rigour of transcripts, etc.
- Emerging components of quality assurance
  - Benchmarking performance against peers
  - National Survey of Student Engagement and a focus on the student experience
  - Teaching quality and design
  - Specific measures for online learning focused on student engagement and rigour of assessment
  - Innovative design so to as engage students and increase learning outcomes
- Gradual shift occurring in how quality is understood and the process of quality assurance.

What's next?

1. More use of artificial intelligence and machine intelligence systems for student support and for the development of assessment resources.
2. More open education services – particularly competency assessments, adaptive learning frameworks and open educational resources (free to use texts, learning materials, support resources).
3. Online student services – careers advising, counselling and guidance.
4. Growth of global credit transfer systems through transnational qualifications systems – UNESCO is working towards an international convention which seeks to enable global recognition of higher education credentials.
5. More competition – LinkedIn working on the idea of Uber-U.