Teaching for a digital age: why blended learning is so important

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1. KEY FORCES OF CHANGE (affecting university teaching)

1. Key forces of change
   a. Demands of a digital economy
   b. The need to develop 21st century skills

Communication skills  
Independent learning  
Ethics/responsibility  
Teamwork and flexibility  
Thinking skills (critical thinking, problem-solving, creativity)  
IT skills embedded in subject area  
Knowledge management

1. Key forces of change:
   a. Demands of a digital economy
   Where will the jobs be?

1. Key forces of change:
   b. The need to develop 21st century skills

Resource-based/energy  
Manufacturing  
Knowledge-based component  
IT/media/entertainment  
Retail/financial/services  
Health/education

MOOCs  
Massive  
Open

Overview

1. Key forces of change
2. Current trends
3. Implications for teaching and learning
4. Conclusions
1. Key forces of change:
   c. changing students
   - More diversity: prior knowledge, cultures, motivation, language ability, more employed/part-time
   - Digital natives: comfort with technology
   - Need for recognized qualifications (degrees, certificates, badges, competencies) that meet diverse learning needs
   - Increasing importance of lifelong learning

1. Key forces of change:
   d. Need for more personal learning
   - Need to provide teaching and learning in ways that allow for the diversity of students
     - different approaches/routes for different students?
   - But how?
     - Learning design + technology

2. Key forces of change:
   e. New modes of delivery
   - blended
   - fully online
   - face-to-face
   - classroom
   - flipped
   - hybrid (distance)
   - no technology (mode of delivery)
   - all technology

Questions
- Do you feel that world is changing around you? If so, how is it affecting your teaching?
- Does a greater focus on skills and learning outcomes undermine or reinforce the academic endeavour?
- Is the diversity of students a challenge for your teaching?

2. Trends:
   a. for-credit online learning: USA
   - Source: Seaman and Allen, 2014
   - Online enrollments growing 5 x faster than campus enrolments
   - The future:
     - Volatile
     - Uncertain
     - Complex
     - Ambiguous

The future:
2. Trends:

a. for-credit online learning: Canada

First national survey, 2017
All 203 public universities and colleges in Canada
Response rate:
- 69% of institutions covering
- 78% of all student enrolments
Voluntary

b. hybrid learning

- Definition: some reduction in face-to-face teaching
- Many (75%) institutions in Canada offer some hybrid
- BUT few courses (60% with less than 10% hybrid)
- Hybrid = innovative teaching; better use of limited space

b. for-credit online learning: Canada

- Over two-thirds rated online learning very important for future
- Most (72%) have or are developing a strategy or plan for online learning

- 78% of all student enrolments
- 69% of institutions covering
- Estimate of all credit course enrolments fully online in 2015:
  - Universities: 16%
  - Colleges: 12%
Course completion rates (80-85%)

- 98% of Canadian universities and
  94% of colleges outside Québec offer fully online courses
- Growth between 2011-2015:
  - Universities: 10% per year;
  - Colleges: 15% per year
- Last 2 years: big move to hybrid
- Probably 50% of all classes will be hybrid by 2020
- ‘Flipped’ teaching: BUT: it can be so much more - move towards re-design
- What is the best use of face-to-face time? What is the right mix?

- cMOOCs (Siemens, Downes, Cormier): different instructors; web conferencing; students use social media; massive ‘communities of practice; connectivist
- xMOOCs: Coursera; edX; FutureLearn; lecture capture; peer review, computer testing; massive online broadcasting: behaviorist
2. Trends:
c. MOOCs
- Driven by Stanford, Harvard, MIT
- Attempts at accreditation but assessment a massive challenge
- BUT: useful for non-credit continuing education
- No MOOC mania in Canada: less than 20% of institutions

2. Trends:
d. Open education
- open textbooks
- open research
- open educational resources (OER)
- content will be free, abundant and all online
- teaching + learner support key quality differentiator
  the real game-changer

2. Trends:
e. Open publishing
- Free, online, open textbooks
- Bccampus Open Textbook project
- 165 books: reviewed/adapted/design by local instructors
- Adopted in 21 of 25 HE institutions
- Saved students $2 million so far
- My book: 40,000 downloads; 8 languages

2. Trends:
f. Multi-media
- Print and talk historically dominant; abstract, linear
- Knowledge now represented through many different media: text, audio, video, computing, virtual reality
- Research shows learning enhanced by multiple representations of knowledge

2. Trends:
f. Multi-media
- Importance of recording: stop/start/repeat
- Allows learners to work at their own pace
- Facilitate move from concrete to abstract and reverse
- Meets individual preferences for learning

Questions
- Do you see these trends as significant or just passing fancies?
- Have you adopted any of these trends in your teaching? How?
- What teaching issues could one or more of these trends address?
3. Implications for teaching and learning

3. Implications for teaching and learning

a. What kind of course?

- where on the continuum should my course or program be?
- Mode of delivery should be driven by needs of students
- high school leavers/full time = campus + blended
- Part-time undergraduate students: blended
- Lifelong learners: fully online
- Multiple modes for same course?

b. Content and skills

- Content = facts, ideas, principles: ‘knowing’
- Skills = understanding, analysing, evaluating, applying: ‘doing’
- Both necessary in today’s society
- BUT: content has been the traditional priority in HE

We know a lot about how to teach skills:

- Context-specific
- Learners need lots of practice
- Small steps
- Regular feedback from expert
- Develop over a program rather than one course

How do you develop skills? What teaching methods?

Relationship between content and skills

What role can technology play in developing and assessing skills?

What do we assess – and how?
3. Implications for teaching and learning

c. What teaching methods for skills development?

- Discussion, social learning for testing and developing ideas
- Problem-based learning
- Experiential learning: learning by doing
- Communities of practice
- Competency-based learning
- Knowledge management

3. Implications for teaching and learning
d. New teaching approaches

- from information transmission to knowledge management
- skills development + content
- lecture-based courses replaced by student projects, problem-based learning, collaborative learning
- goodbye written exams: replaced by e-portfolios demonstrating student’s knowledge/skills

3. Implications for teaching and learning
e. ‘advanced’ online course design

- core skill: knowledge management
  - how to find, analyze, evaluate and apply information
- open content within a learning design
- student-generated multimedia content: online project work
- assessment by e-portfolios
- just one example: new designs needed

3. Implications for teaching and learning
f. New faculty roles

- Teaching performance will be a major competitive advantage
- Instructors need pedagogical knowledge + technology skills
- Requires pre-service + in-service training + tenure/promotion reward
- Learning technology support (instructional designers + media designers) + team-work

Questions

- Are you convinced of the need for change in your teaching?
- What is the most relevant of these developments for your teaching?
- What are the main barriers you face in changing your teaching?

Conclusions

- Digital economy requires high-level intellectual skills
- Teaching methods must include opportunities for skills development
- Technology enables more flexible delivery and ways to practice skills
- But all within a specifically designed learning environment that supports learners
Exercise

- Choose a course or (new?) program
- Redesign it to give more emphasis to skills development/knowledge management/independent learning
- Choose moderator + reporter
- Report back (course details; why the change; the new design)