

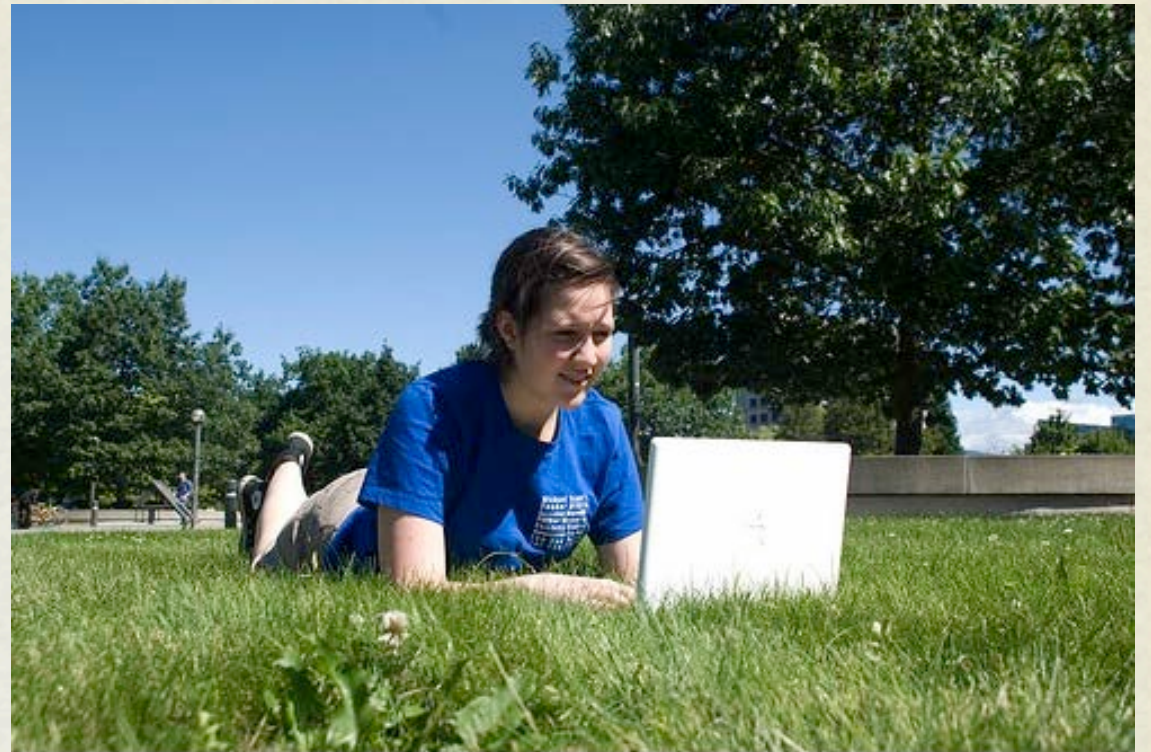
e.SCAPE: Knowledge Teaching Technology
Concordia University, Montréal, QC, March 5-7, 2014

DESIGNING UNIVERSITY TEACHING FOR A DIGITAL AGE

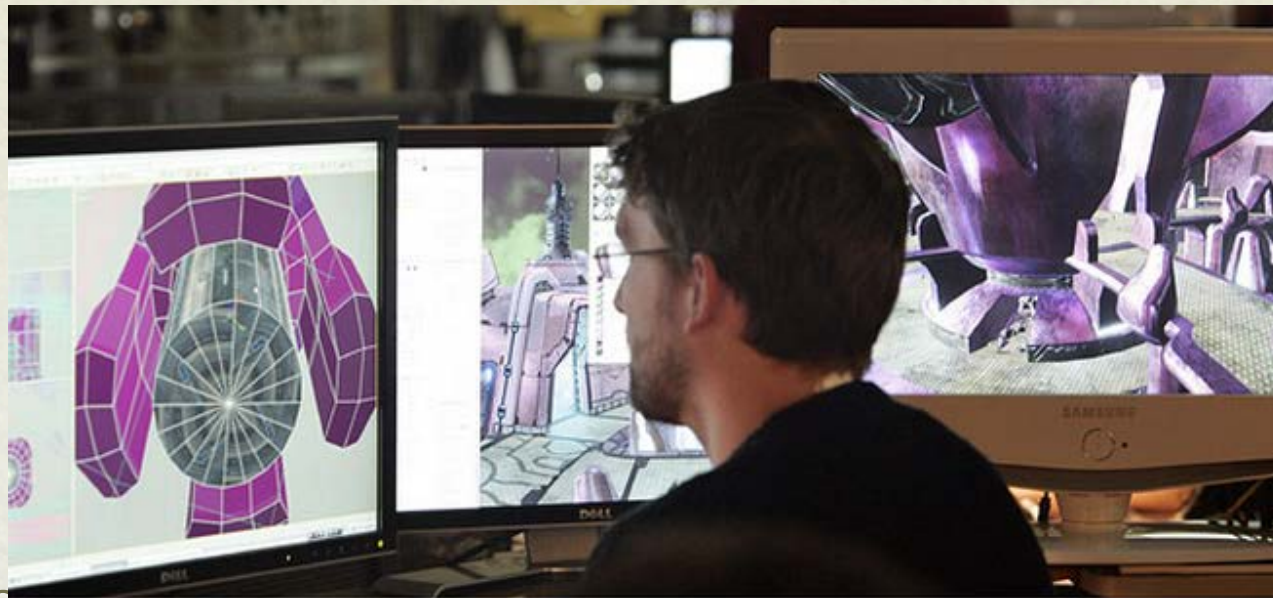
Dr. Tony Bates,
Tony Bates Associates Ltd,
Vancouver, BC, Canada

Overview

1. Demands of a digital economy
2. Online learning trends over the last five years and why
3. How to make decisions about the use of technology for teaching
4. Online teaching models
5. Implications for the university
6. Conclusions



Demands of a digital economy



- Future workforce = knowledge-based industries (IT, health, finance, design, entertainment) + service industries + trades
- Digital skills
- 21st century skills
- Changes in teaching methods

21st century skills

communication skills

independent learning

ethics/responsibility

teamwork and flexibility

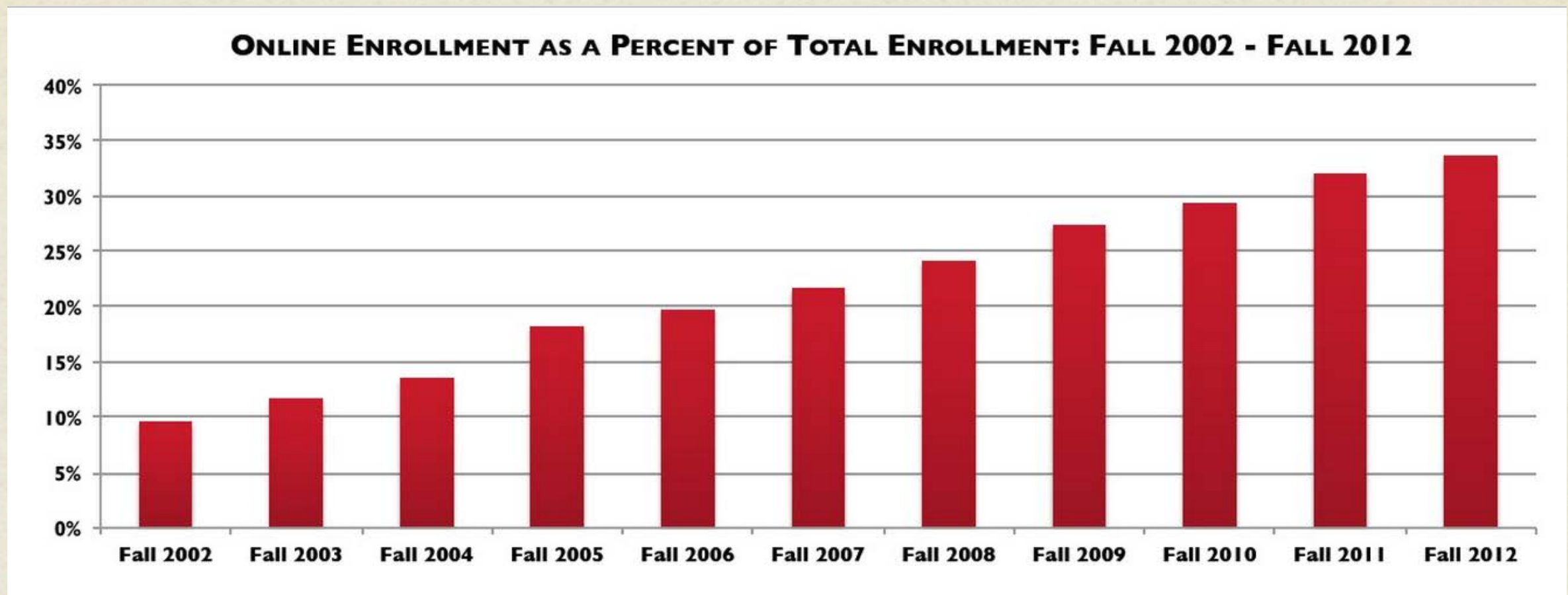
thinking skills (critical thinking,
problem-solving, creativity)

IT skills embedded in subject area

knowledge management



Growth of for-credit online learning



Source: Seaman and Allen, 2014

Online enrollments growing 5 x faster than campus enrollments

High completion rates (80-85%)

Trends: hybrid learning

- Last 12 months: big move to hybrid learning (in Canada)
- 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?



Why the move to blended/hybrid learning?

- Large lecture classes
- Recognition that students can learn ‘some things’ online
- New, easy to use technologies, e.g. lecture capture, LMSs
- Demands of knowledge society: 21st century skills
- Need for more flexible delivery



Trends: open education

- open textbooks
- open courses (MOOCs +)
- open resources (OERS)
- content will be free, abundant and all online (open journals)
- service (quality teaching + learner support) key quality differentiator



Trends: MOOCs

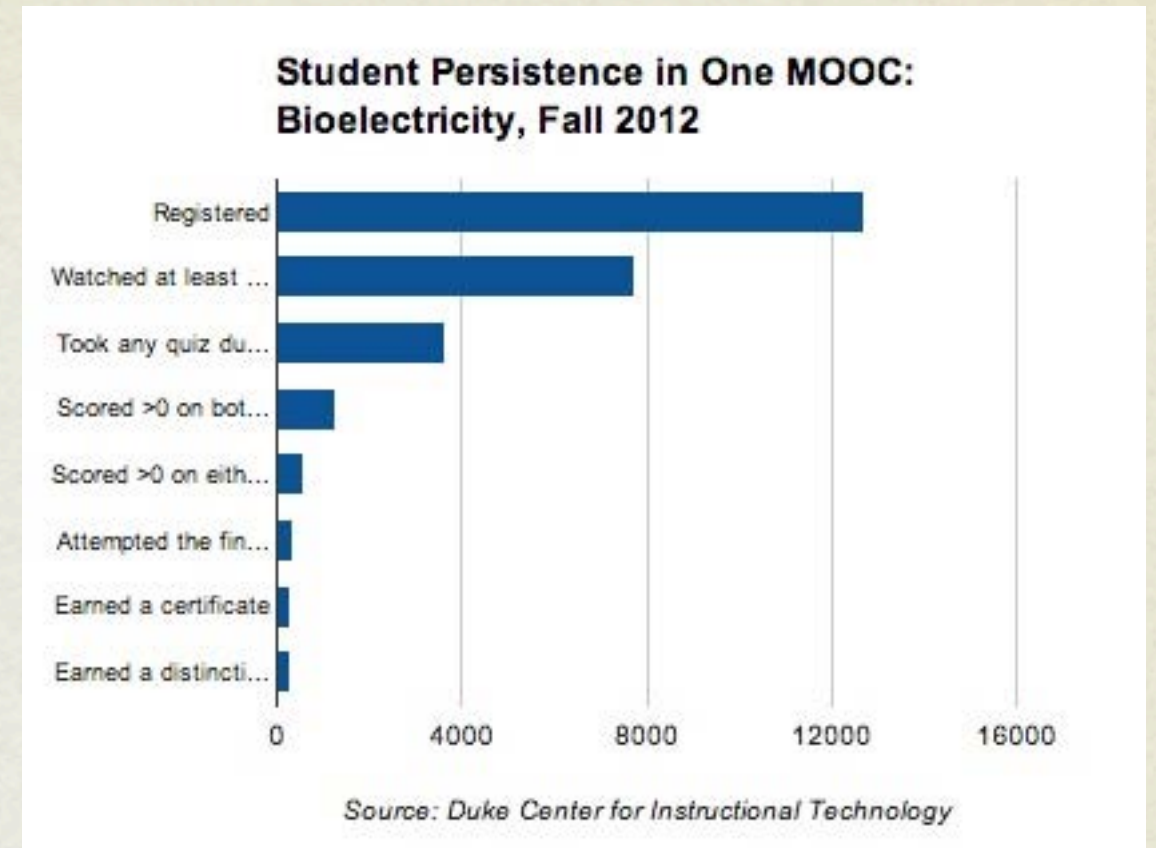
- cMOOCs (Siemens, Downes, Cormier): different instructors; web conferencing; students use social media; massive ‘communities of practice’
- xMOOCs: Coursera; edX; FutureLearn; lecture capture; peer review, computer testing; massive online broadcasting



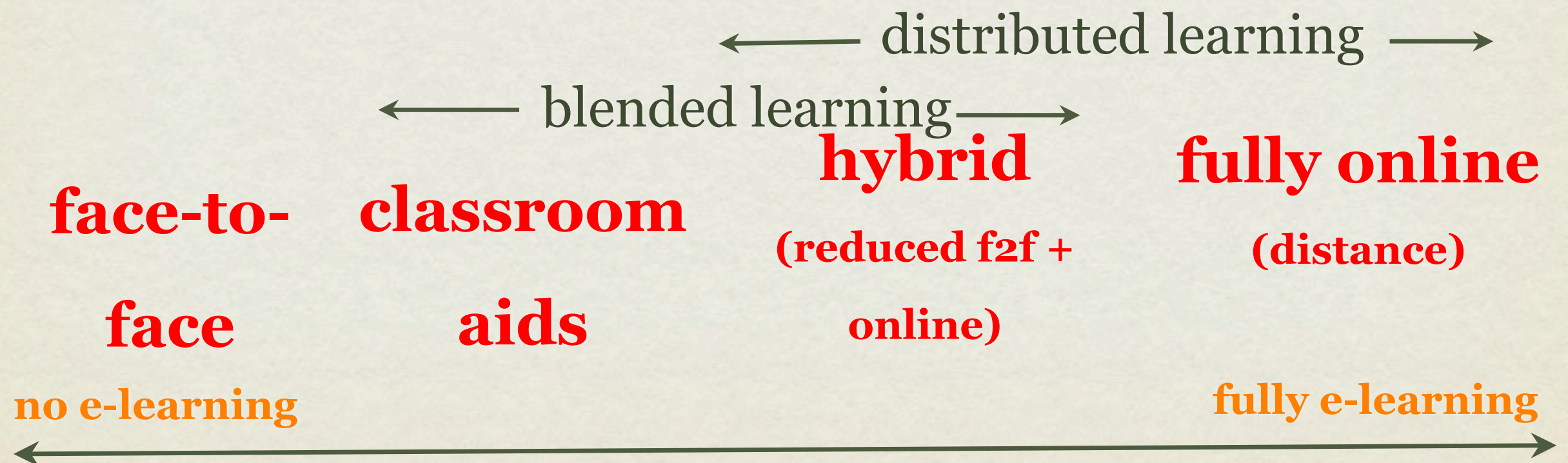
© Gordon Lockhart/José Bogado, 2011

MOOCs

- Driven by Ivy League institutions
- Bandwagon effect: UofT; UBC
- Enrollments: 10,000 +, but low completion rates: <10%
- Attempts at accreditation (e.g. ACE) but assessment a massive challenge
- No credible business models yet



What kind of courses?



What kind of course?

- where on the continuum should my course or program be?
- four deciding factors:
 - teaching philosophy
 - targeted students
 - demands of subject discipline (content + skills)
 - resources



How do you want to teach online?



to this?



+



Students

Who benefits from online learning?

- lifelong learners wanting new qualifications/upgrading
- full-time students wanting more flexibility
- students needing 21st century skills
- independent learners
- remote, isolated students?



Subject requirements

- What do students need to know? (content)
- **Content:** haematology
- What must they be able to do with their knowledge? (skills)
- **Skills:** identify analytes, analyze glucose and insulin levels, interpret results



Subject requirements

Learning objectives

	Face-to-face	Online
Learn theory and terminology		<u>x</u>
Observe <u>analytes</u> under microscope	<u>x</u>	
Design experimental set-up using virtual equipment		<u>x</u>
Video of interactions under microscope		<u>x</u>
Insert glucose	<u>x</u>	

Resources

- Instructor's time (workload; course design)
- LT support (instructional/ web design)
- experienced colleagues
- technology (e.g. LMS)
- open educational resources

The screenshot shows the website for the Centre for Teaching and Learning Services at Concordia University. The header includes the university logo and navigation links. The main content area features the center's name, a mission statement, and a list of services. A sidebar on the right provides contact information, location, and mailing address. A footer section includes news updates.

Concordia University
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Concordia Directories
Search

Home > Offices > Centre for Teaching and Learning Services

Centre for Teaching and Learning Services

Our goal is to start conversations with faculty & graduate students about what makes great teaching & learning. We aim to build on and share these ideas through workshops, online resources, & through university-wide networks.

Our services & resources

For faculty members | For graduate students

The Centre offers a broad range of services & resources for Concordia faculty.

- Workshops
- Consultations
- Course evaluations
- Teaching with new technologies video series
- Epigeum: Online Learning Modules

Please visit Cspace for more information.

Contact us

CTLS:
514-848-2424, ext. 2495

teaching@concordia.ca

Staff directory

Location

Centre for Teaching & Learning Services
Room AD-426 (see map)
7141 Sherbrooke Street W.

Mailing address

Centre for Teaching & Learning Services
Loyola Campus
7141 Sherbrooke St. W.,
Montreal, Quebec, Canada
H4B 1R6

Teaching News > More RSS

February 26, 2014
Bringing the classroom into the digital age

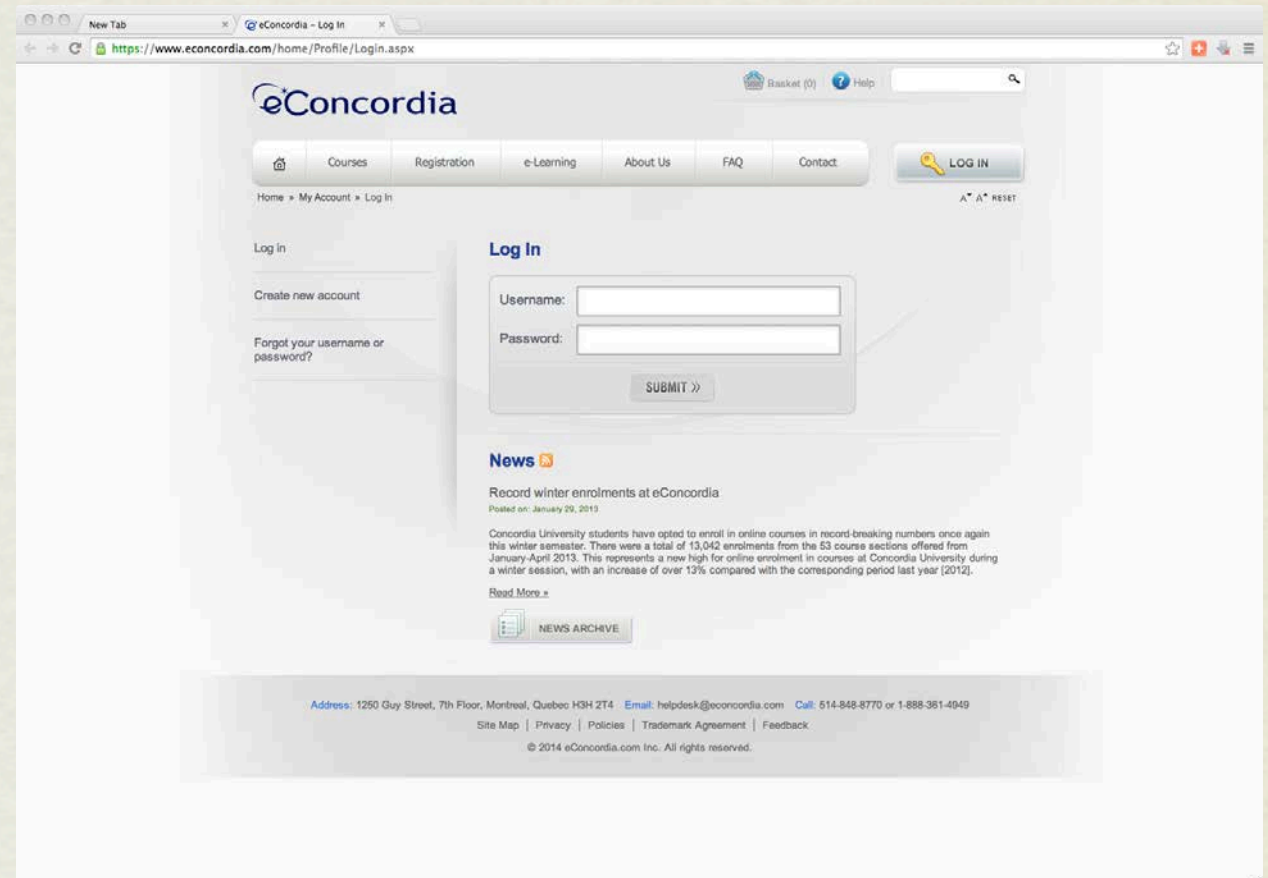
February 25, 2014
From Beowulf to Gandalf: a new approach to Old English

CTLS News & Events | Workshops for Faculty (Cspace) | Workshops for Students

Online learning technologies

Learning management systems

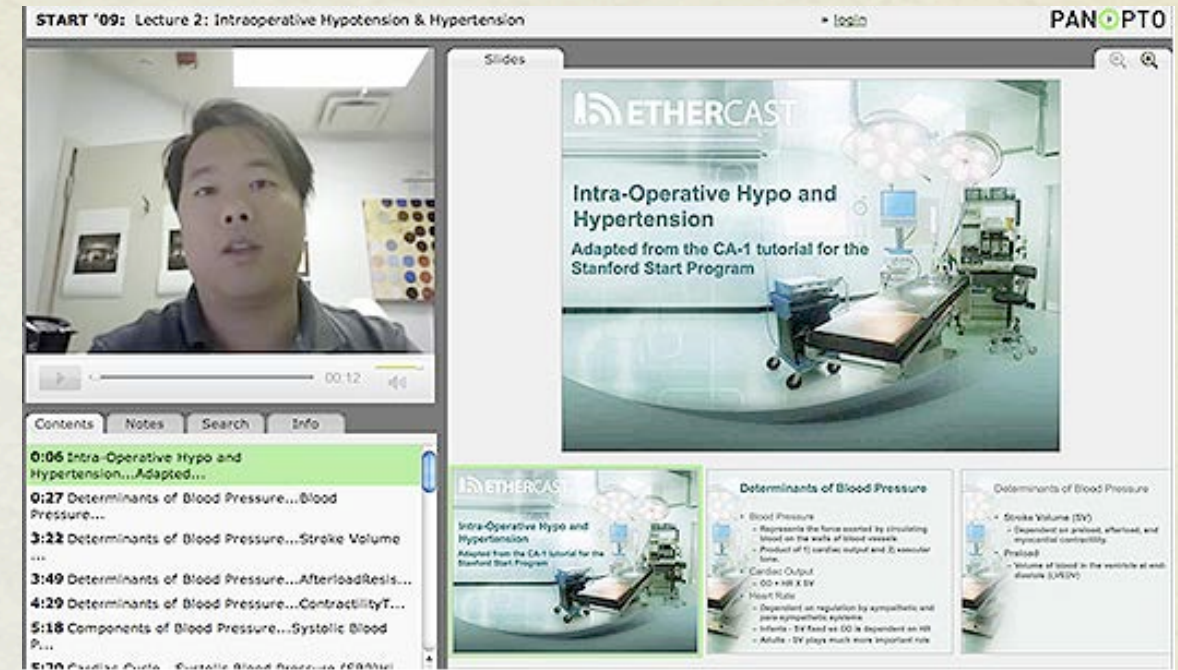
- Instructor determines content
- Assessment by instructor
- Online discussions
- Interaction with instructor
- With or without instructional design



Online learning technologies

Lecture capture

- Instructor determines content
- No adaptation for online learners
- With or without additional learner activities
- Interaction mainly through TAs
- Automated assessment



Online learning technologies

Social media/web 2.0

- Blogs, wikis, e-portfolios, video, mobile
- learners find/create/add/adapt content around defined learning outcomes
- ‘open’ access, content, services
- instructor ‘guide-on-side’/consultant



When to use web 2.0

Objectivist

Constructivist

Tests

Essays

E-portfolios

Books

LMSs

OERs

RSS

Facebook

YouTube

**Discussion
forums**

Wikis

Blogs

**Open
content**

xMOOCS

cMOOCS

**Teacher
control**

**Learner
control**

Credit

Non-credit

Fully online (for credit): quality standards

Lots for fully online learning (20)

- For different sectors/countries
- based on 25 years of experience/
research
- all quite similar
- mainly design and process focused
- often unknown or ignored by
instructors

E-learning quality assurance standards, organizations and research

AUGUST 15, 2010 BY TONY BATES • 26 COMMENTS (EDIT)

 Listen

 +1 4



I am surprised how often academic colleagues argue that there are no quality standards for e-learning. Well, hello, I'm sorry, but there are and some of them are damned good. However, I was surprised to find while doing some research for a client that there is no single source where one can go to compare different quality standards for e-learning. So I'm starting a list here, and would appreciate it if readers could direct me to ones that I may have missed. (For more detailed information on some of these, see comments below).

Canada

Barker, K. (2002) [Canadian Recommended E-learning Guidelines \(CanREGs\)](#) Vancouver BC: FuturEd/CACE (also available in French)

Barker, K. (2001) [Creating quality guidelines for online education and training: consultation workbook](#) Vancouver BC: Canadian Association for Community Education

BC Ministry of Education (2010) [Standards for K-12 Distributed Learning in British Columbia v3.0](#) Victoria BC: BC Ministry of Education

Ontario Postsecondary Education Quality Assurance Board: [Review Guidelines: Review of Capacity to Deliver Online Degree Programming](#) Toronto ON: Ministry of Training, Colleges, and Universities

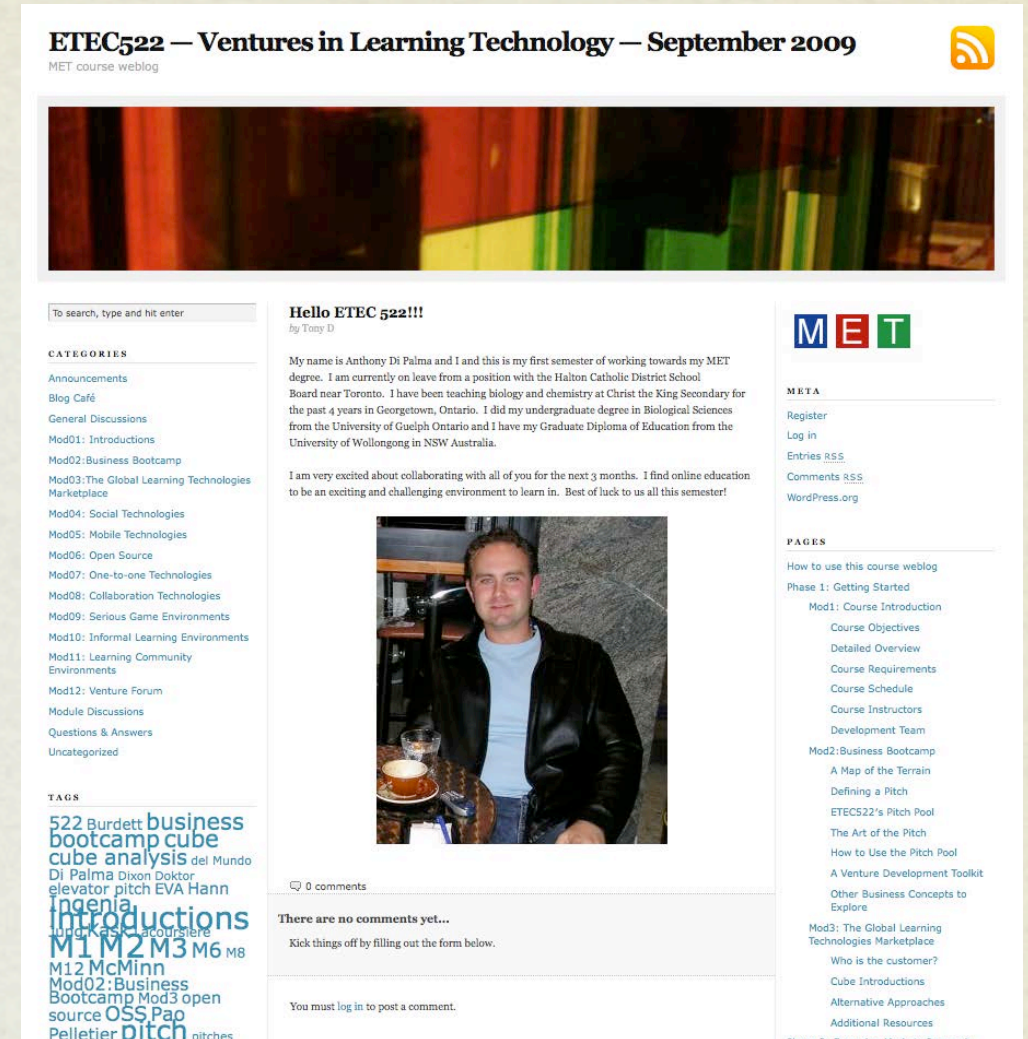
USA

Nine steps to quality online teaching

1. How do you want to teach online?
2. What kind of online course?
3. Work in a team
4. Build on existing resources
5. Master the technology
6. Set appropriate learning goals for online learning
7. Create a strong online course structure/schedule
8. Communicate, communicate, communicate
9. Innovate and evaluate

‘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



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




DANIEL SHAFFER

The Pennsylvania State University

ABOUT ME	RÉSUMÉ	EDUCATION	EXPERIENCES	ASPIRATIONS	CONTACT ME
Introduction	PDF Version	General Information	Extracurricular Activities	Short-Term Goals	Standard Methods
Personal Statement	Interactive Version	Sample Coursework	Previous Employment	Long-Term Goals	Electronic Methods

EDUCATION: Sample Coursework


All files in Adobe PDF format



EXPERIENCING A CROSS-FUNCTIONAL BUSINESS SCENARIO Apple Inc. Corporate Report: Industry Mega Trends (BA 411: Analyzing Business and Industry, Fall 2007). With the main purpose of exposing students to a cross-functional business scenario, this report combines the knowledge of marketing, accounting, finance, supply chain, and economics from each of my four group members enrolled in different majors across the Smeal College of Business. As the sole marketing representative of my group, I helped in both the collaboration of the written section of the report and by taking the initiative in creating a unique aesthetic report layout in regards to Apple's brand associations of sophistication, prestige, and simplicity.

[Apple Inc. Corporate Report](#)

COLLABORATING WITHIN A SMALL GROUP Marketing Research Project for the Penn State Iceers Hockey Team (MKTG 342: Marketing Research, Spring 2007). While working with four other group members to achieve the highest graded project in our class, this project involved researching different marketing characteristics for the Penn State Men's Hockey Team in order to



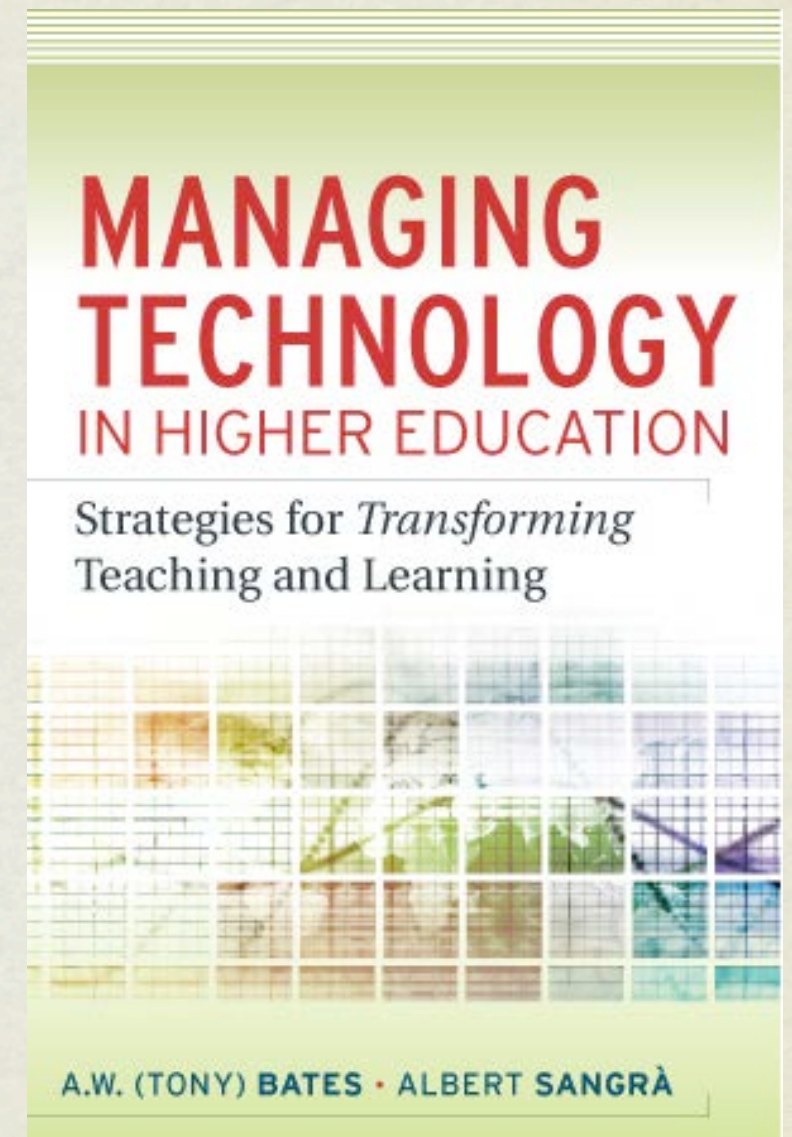
Disaggregated services

- More adult learners than school leavers + ubiquitous content
- Students choose among services:
 - admission/career counselling,
 - teaching/academic learner support
 - campus experience
 - qualifications
 - lifelong learning



Who should decide?

- Face-to-face, hybrid, fully online?
LMS, lecture capture, web 2.0?
- One course, multiple delivery, for different students?
- Individual instructor; program team; senior admin?
- **program** level: a progression?
- What mechanisms for this decision?



Implications for decision-making

Who should decide on:

- face2face/hybrid/fully online
- choice of technologies on a course?

Institution sets general direction

Program team decides balance based on target groups/learning outcomes, integrated with annual academic planning and budget process

Individual faculty decide at course level



The importance of strategic thinking

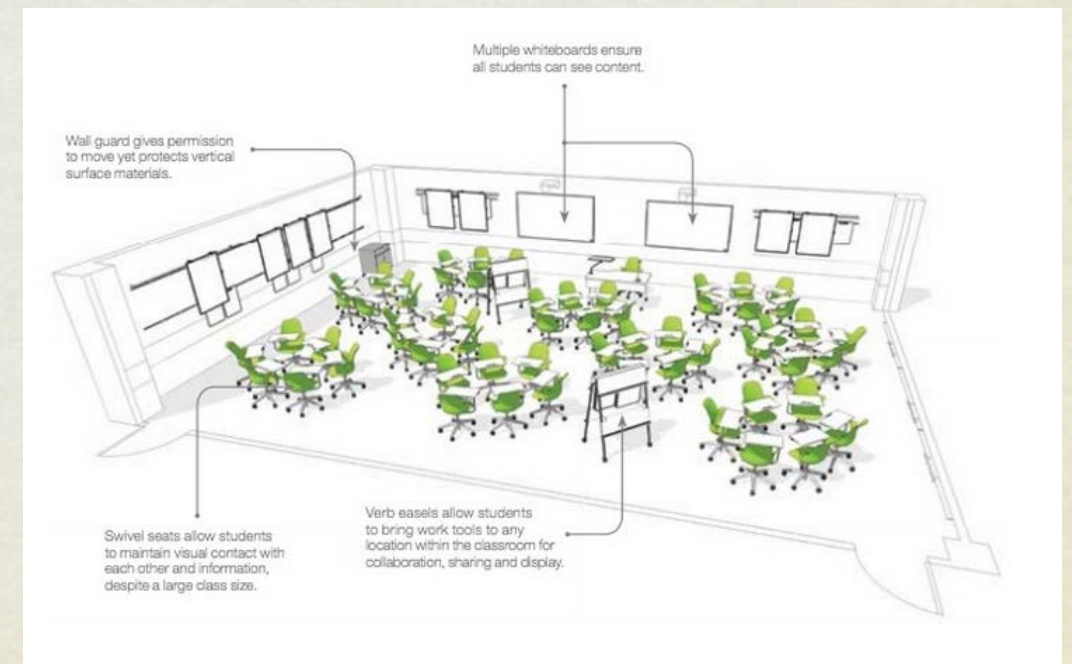
strategic *thinking* more important than a detailed plan, focusing on:

- Being clear on the broad goals for online learning
- How best to achieve these goals in teaching and learning through faculty:
 - visioning/discussing teaching
 - planning programs
 - designing courses



Implications for the campus

- Impact of online learning: less need to come to campus: 50% hybrid?
- Why get on the bus? What can we offer?
- Expansion: more buildings or online?
- New teaching methods: what kind of learning spaces?
- Need decisions *now* for 2020



Managing cultural change

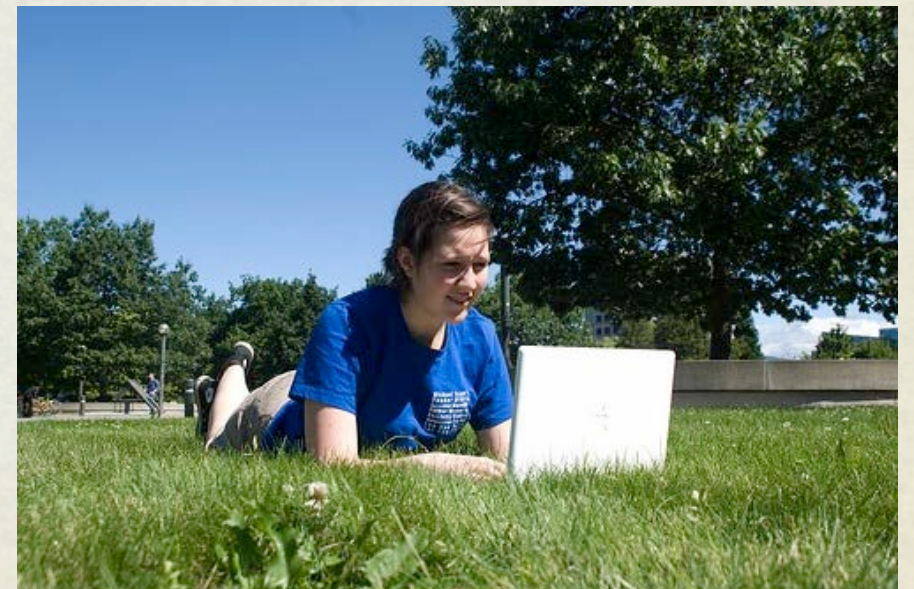
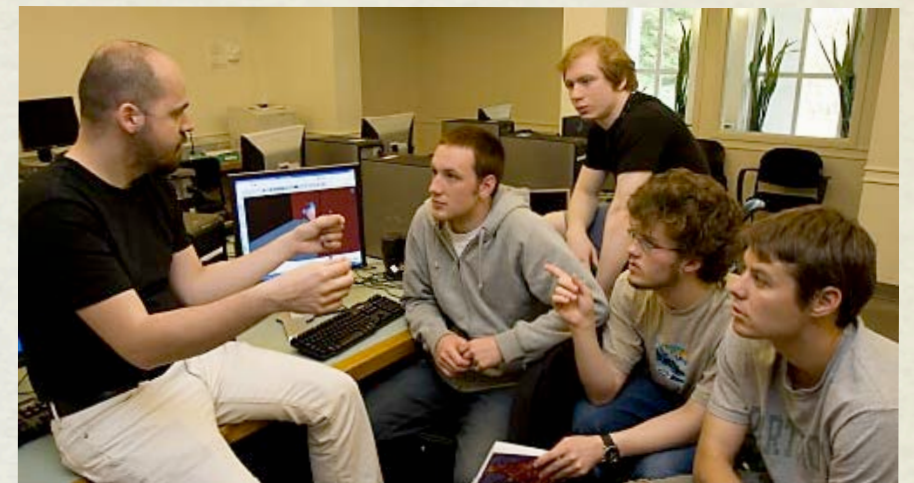
Faculty must be part of the solution by:

- understanding rationales for use of technology in teaching
- being involved in decisions about learning technologies at all levels
- working in a team with IDs, etc.
- being better trained
- finding teaching more fun and rewarding with technology



Conclusions

- Future is not pre-determined; you have choices
- What kind of institution do you want to be?
- What is your competitive advantage?
- What are your main threats and dangers?



Questions

- How could digital technologies be used to foster scientific/historical thinking (rather than teaching *about* science/history?)
- Do you discuss ‘markets’, teaching methods, and the role of technology at a *program* level?
- Are you getting the support you need to teach well with technology?



Reference

Bates, A. and Sangrà, A. (2011)
*Managing Technology in
Higher Education: Strategies
for Transforming Teaching
and Learning* San Francisco:
Jossey-Bass/John Wiley

