

# New Tools for Online Teaching



Karen Belfer • Jeff Miller

Distance Education & Technology  
University of British Columbia

1

## Agenda/Topics

- Introduction
- LOs at UBC
- Social Software
- ePortfolios
- Implementation Issues
- Strategies for success



2

## Key Themes

- Technology best transforms teaching and learning when it facilitates learning processes rather than merely delivers content
- Students can be producers of knowledge, not just consumers of content
- Communities of Practice build best practices
- Faculty buy-in is far more effective in creating change than buy-out of their time

3

## Introduction

- University of British Columbia
  - Dual Mode Institution
  - 40,000 students, 6,000 enrollments through Distance Education
  - 2,000 faculty/8,000 staff
- 12 Faculties
- Distance Education & Technology

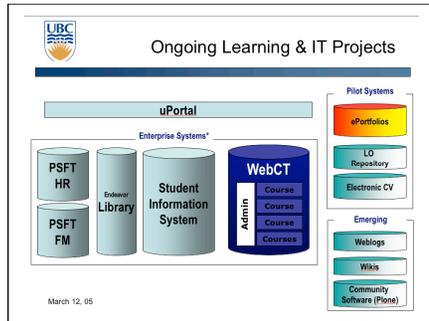


4

## Incubating new learning technologies at UBC

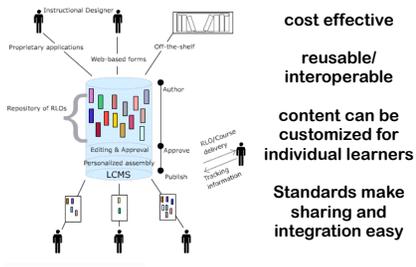
- Office of Learning Technologies  
<http://olt.ubc.ca>
- communities of practice, learning objects, eportfolios, emerging technologies, and enterprise-level e-learning systems
- site for low-risk incubation of emerging technologies, evaluation of pilot systems and integration to enterprise level systems

5



6

## Learning Objects



7

## LOs paradoxes

“specifications and applications that are truly pedagogically neutral cannot also be pedagogically relevant.”

– Norm Friesen

“the smaller designers create their learning objects, the more reusable those objects will be. On the other hand, the smaller learning objects are, the more likely it is that only humans will be able to assemble them into meaningful instruction....The supposed economic advantage of reusable learning objects has evaporated.”

– David Wiley

8

## LOs Faculty Responses

- "I get mad every time I use somebody else's canned software."
- "Taking modules, and expecting them to assemble themselves into a smooth artful flow, is unrealistic."
- "I need more fine-grained resources that can be manipulated in divergent ways."

9

## Faculty response



10

## From LOs to Social Software

- A collection of mostly free, open source applications that build upon XML metadata as well as LO values relating to reuse, discovery and interoperability.
- Facilitate communication and publication between individuals or groups, and often involve creative ways to represent presence, interaction and creative interfaces for viewing information.
- Wikis, Weblogs, RSS feeds/News Aggregators, Photostreams, Social Bookmarking, etc.

11



- Course premised on the notion that writing is a technology
- How do developing technologies for writing (scroll, codex, hypermedia) modify human orientation to information?
- Has been offered 3 times, each time with 40 students.

12

- ① Highly constructivist course: students produce content and knowledge in collaboration with one another
- ① Multiple writing environments: asynchronous forums, community web, social software



13

## From Push to Pull

- ① Faculty members, students and staff have taken to these tools with a great deal of enthusiasm
- ① We don't have to try to sell them on the benefits of Social Software: they seem to be buying into it because they are finding useful tools that help them create effective constructivist learning processes (or to organize a camping trip...)

14

## ePortfolios

- ① another technology, but one based on a well established methodology
- ① from social to individual constructivism: in most cases it is a very personal activity

15

## what are portfolios

- Mirror
- Map
- Sonnet

16

## Reflection

### Student's Reflection

"The ability to reflect upon the past and the ability to learn from past mistakes leads to exceptional growth. I learned how to reflect better through repeated writings of journal entries and feedback from my instructors. At the beginning of the course, I struggled with reflections and expressing how or why I felt a certain way.

"You also write about a lot negative feelings. How can the negative experiences be positive?" (Feedback in Iwebfolio, October 23). Not explaining my feelings on paper meant that I had not thought about what kind of feelings I was dealing with, and I was not making an effort to turn challenges into strengths. Taking my instructor's advice, I reflected on my feelings more and more..."

17

## Social Dialogue

### AGSC

"The most challenging piece was teaching students how to reflect."

AGSC496 Instructors

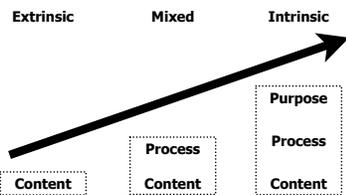
18

## Benefits of ePortfolios

- Student
  - Meta-cognition
  - Self-regulation
  - Transfer learning
  - Empowerment
- Faculty
  - Authentic
  - Context rich
  - Personalized learning

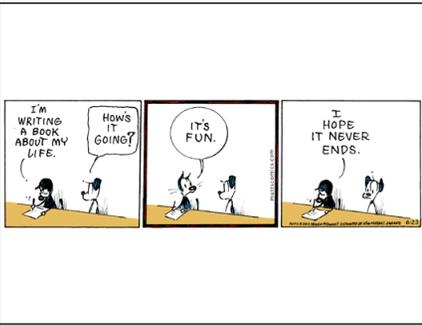
19

## Motivation



Helen Barrett (2004).

20



21



- ETEC533: Technology in Mathematics and Science Classroom
- How do use and develop technologies than enhance the teaching and learning of science and mathematics?

22



- Students reflect on their own assumptions about the use of technology for teaching and learning
- Students reflect on the impact of the use of current technologies in the teaching of science and mathematics
- Students collaborate in the Design of Technology-Enhanced Learning Experiences

23

## ePortfolios

- Technology
  - Dedicated and undedicated systems
  - Social Software
  - Vendor and Open Source
  - Implementation Issues

24

## ePortfolios

- What is the story about implementation
  - UBC Projects
  - Community of practice
  - Buy in - Adoption
  - Transformation of teaching and learning

25

### Management of e-learning: development, delivery, implementation

- Technology learning curve and cost structure is low and ease of use is high. Not always easy to scale into enterprise level applications
- Intellectual Property: copyright, copyleft, creative commons
  - <http://creativecommons.org/>
- BC Commons/Creative Commons
  - <http://www.bccampus.ca/>

26

## What we've learned

- Technology best transforms teaching and learning when it facilitates learning processes rather than merely delivers content
- Students can be producers of knowledge, not just consumers of content
- Communities of Practice build best practices
- Faculty buy-in is far more effective in creating change than buy-out of their time

27

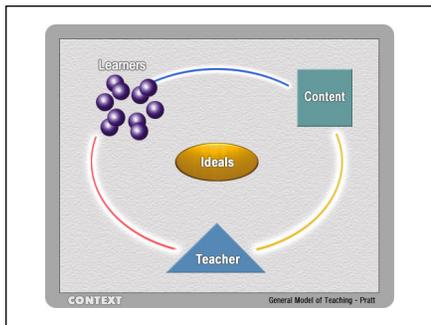
## New Tools for Online Teaching



[karen.belfer@ubc.ca](mailto:karen.belfer@ubc.ca)  
[jeff.miller@ubc.ca](mailto:jeff.miller@ubc.ca)

Distance Education & Technology  
University of British Columbia

28



29