Teaching and Learning in a Net Centric World

Terry Anderson, Ph.D.
Canada Research Chair in Distance Education

Slides at http://cider.athabascau.ca/Members/terrya/slides/
The Wonder of the Googled Earth

http://www.gearthblog.com/
Overview

- Setting my context- Athabasca University
- The Uncertainties of Higher Education in a Net Centric World
- The Educational Semantic Web
- Social Software and its pedagogy
- Change Strategies for your Campus
- Critical advocacy
“Canada is a great country, much too cold for common sense, inhabited by compassionate and intelligent people with bad haircuts”.

Athabasca University, Alberta, Canada

Fastest growing university in Canada
32,000 students
700 courses
Graduate and undergraduate programs
Largest Masters of Distance Education program
Only USA Accredited University in Canada

Athabasca University
Total number of students

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Current Applied Research Efforts at Athabasca

- Social Software
- Prior learning Assessment
- Mobile learning
- Asynchronous Voice using WIMBA
- Moodle Integration
- Open Access Publishing
Digital Reading Room (DRR):

- 261 digital reading files
- Link to 17,790 learning resources or learning Objects
- Support desktop and mobile access
Contradictions of Higher Education

- Collaborative but competitive
- Free distribution but commercialized
- Refuge for scholarship but attuned to business world
- Universal access but user fees
- Basic research but current relevance
- Innovative but accountable
- Any place versus the campus experience
Maybe the Sky Really is Falling!

THE SKY IS NOT FALLING! THAT'S JUST A CROCK OF PROPAGANDA FROM A BUNCH OF LEFT-WING ENVIRONMENTALIST WACKOS!

Glasbergen

Chicken Little, Age 40.

- Great challenge and Great Opportunity
All of these uncertainties place a premium on reflective leadership, vision and the strategic use of all teaching and learning resources.
A personal story of learning object repositories
CAREO Case Study

- Campus Alberta Repository of Educational Objects
  - Initial funding for development
  - Operational 1998- present
  - 4,000 objects
- Why Not Used
  - Little production?
  - No commercial model?
  - No community?
- Should it Survive?
Barriers to implementation

- Socio-political – who are the communities that want and will support the repository? personal motivations to use?
- Pedagogical- how do objects fit with traditional and social notions of teaching and learning?
- Information management – who owns these objects? What is the business model?
- Technical – ease to input, search, retrieve and re-use.
Athabasca Learning Object Research

- 4 faculty members to develop courses using freely available learning objects:
  - Canadian Nursing Policy
  - English for the theatre
  - Business Communications
  - Education Technology

Christiansen & Anderson, 2004
www.itdl.org/journal/Mar_04/article02.htm
Learning Object Lessons

- We all use and will continue to use net based resources
- It may not be necessary to create centralized repositories – but everything must be on the open net
- Need for continuing growth in faculty expertise
- Need to support a renewed culture of sharing
My (limited) understanding of Swedish Net Learning

- Online Education and Learning Management Systems
- Global E-learning in a Scandinavian Perspective

Morten Flatte Paulsen   Carl Holmberg
Sweden has lived through an astounding number of government initiatives:
- IT in Schools; Swedish Net Univ.; CFL; Knowledge Foundation; Teknisk framsyn;
- K-World; Distum

What has been learned? How much has been spent researching the effect of these interventions?

How many sessions here sound like “here is what I am doing, isn’t it wonderful”?

Need for systematic research and evaluation

The promise of design-based research

See my award winning article at:
- www.cjlt.ca/content/vol31.2/anderson.html
What is Net Learning?
Educational Media

- Face-to-face
- Interaction
- Computer conferencing
- Video conferencing
- Audio conferencing
- Radio
- Television
- Correspondence

Independence of Time and Distance

Interaction
Independence of Time and Distance

Interaction

Face-to-face

Net Based Learning

Audio conferencing

Video conferencing

Computer conferencing

Radio

Television

Correspondence

Educational Media

Net Based Learning

Educational Media

Interaction

Independence of Time and Distance
Types of E-Learning

- Web conferencing: 50.4%
- Virtual classrooms: 3.2%
- Video editing/development tools: 15.2%
- Video Conferencing: 31.2%
- Survey generation tools: 28.8%
- Simulations: 36.0%
- Off-the-shelf courseware/libraries: 40.0%
- Learning management systems: 56.0%
- Learning content management systems: 30.4%
- Games: 12.0%
- E-Labs: 11.2%
- Content integration tools: 15.2%
- Authoring tools: 58.4%
- Audio editing/development tools: 21.6%
- Audio Conferencing: 54.4%
- Assessment/testing tools: 62.4%

Affordances of the Educational Semantic Web (Anderson & Whitelaw, 2004)

- Abundance of Content
  - Read/Write Web 2.0
  - Automated, Filtered Search

- High Quality, Low cost Communications
  - Connected Learning
    - Automated Facilitation

- Agent Assistance
  - Connected Learning
Affordance 1. Massive Amounts of Content

- Any information, any format, anytime, anywhere
- Customizable content
- Interactive content
- User created content
A Tale of 3 books

Open Access
64,000 downloads plus indiv. chapters
400 hardcopies sold @ $50.00
Free at cde.athabascau.ca/online_book

Commercial publisher
934 copies sold at $52.00
Buy at Amazon!!

E-Learning for the 21st Century
Commercial Pub.
1200 sold @ $135.00
2,000 copies in Arabic Translation @ $8.
Globalism and the Flat World

“We’ve been held back so long”
- Passion to learn
- Passion to earn
- Passion to create
  - (J.S. Brown)
Content - conclusion

- Cheap or free
- Need to learn to share and re-use
- Don’t build your value on your content
- Content is necessary, but not sufficient to create a quality educational experience
Affordance 2
High Quality, Low Cost Communication

- Multi synchronous
  - Synchronous, asynch
  - Text, audio and video
  - Stored, indexed and retrievable
- Mobile
- Embedded
- Pervasive
New Communications Applications:

- Social Computing
Social Software Applications

Profiles

Cooperative Space

Communities & Group Profiles

Net Enhanced Social learning

Individual Space

Blogs PodCasts

E- Portfolio’s

Wikis

Group Ware

Social book-marking
Introductory Services

- Social network analysis tools – analysis of active and potential connections to extract likely cooperative partners

*Myspace.com now has 64 million subscribers- sold for $530 million (2005)*
I wish we could just go the pub like we do in my campus classes
Profiles – Finding each other


I am a professor at Athabasca University. I teach education technology courses at the Education program.

I am also the editor of IRRODL which is CIDER at http://cider.athabascau.ca/

Brief description For use in your sidebar profile.

Street address Private

• Elgg.Net demo
Write down your goals

People have known for years that making a list of goals is the best way to achieve them. Why is that? First, getting your goals in writing can help you clarify what you really want to do. You might find you have some important and some frivolous goals. That is OK. You’ve got space for 43 Things on your list. Not every one of them has to change the world (but save room for the ones that might).

Get Inspired

What do you want to do with your life? It is not an easy question to answer – and you shouldn’t have to answer alone. Browse 43 Things to find out what others want to do. You might find some goals you share. Click the “I want to do this” button to add a goal to your list. Got an idea for a new goal? Just type it in the text box on the homepage or at the bottom of any page on the site. Bam. Now, it’s your thing.

Share your progress

We all have stories about what we care about. Writing down your progress on a goal can help someone else learn about something you both want to do. When you see a goal you’ve achieved, click on the “I’ve done this” button and share a story about how you did it.
ClickCaster is the simple and easy way to find and host Podcasts or record them straight from the Web.

Create!
Record audio right from your browser.

Explore!
Find audio and video Podcasts from all over the world.

Connect!
Broadcast your own show, and subscribe to other people's shows.

View our Blog >

Featured Shows

- iclipx: In Your Face
  The Extreme Lifestyle, the Sports, the Music the Begins

- bitjobs for the masses!
  Quality independent music from around the world

- The Steve Douglas Show...
  The Steve Douglas Show Archives

- Insomnia Radio
  Leading the new revolution in internet radio, Insomnia Radio consistently delivers indie rock u...

- Amateur Traveler Podcast
  Amateur Traveler Podcast is a show about traveling for the love of travel. It features travel sto...

- American Experience | PBS
  American Experience

- Old Wave Radio: New 80...
  The sounds of the '80s from inside of...
Educational Social Software defined:

“Networked tools that support and encourage learning through face-to-face and online social interactions while retaining individual control over time, space, presence, activity, identity and community.” (Anderson, 2005)
Welcome to Google Alerts

Google Alerts are email updates of the latest relevant Google results (web, news, etc.) based on your choice of query or topic.

Some handy uses of Google Alerts include:

• monitoring a developing news story
• keeping current on a competitor or industry
• getting the latest on a celebrity or event
• keeping tabs on your favorite sports teams

Create an alert with the form on the right.

You can also sign in to manage your alerts
Propose Dates/Times

Use the date selector to choose up to 12 optional start dates and times:

Choose dates/times:

Add »

Duration:

0 [ ] hour(s) 0 [ ] minutes or.. 0 [ ] day(s)

approximate  definite

Timezone:

Mountain Time

Continue »
"Calgary" to "Europe"

Click the map label to view alternates (U.S./Canada) or fares (International) departing from Calgary.

Go directly to fare display by clicking on a destination city price from the list on the left.
RSS agents linking Blog postings example
So What does the Educational Semantic Web mean for your School?
Cost/student

Mega Univ.
- Fordist
- Div of Labour
- Mass Markets
- Production and Distribution Focus
- Excel Student Services

Net University
- Distributed Content
- Networked services
- Blended learning
- Authentic activities
- Learning Networks

Tradition Univ
- Lone Ranger
- Craft production
- Teacher focused
- Dialog focused
- Not scaleable

Flexibility and customization
The Net’s Long Tail
(Wired’s Chris Anderson, 2005)

36% of Amazon’s book sales are in the Long Tail, defined as beyond the 100,000 books available in the typical Barnes and Noble superstore (Anderson, 2006)
Education’s Long Tail

- Top 25 courses generate 35% of enrollments

- Netbased learning
  - Near zero distribution costs
  - Near zero capital costs
  - Near zero shelf costs
  - Near zero promotion costs
    - Profile promotion
    - Extensive word of mouth, blogging community promotion
The Nets Long Tail (Anderson, 2005)
A 21st Century Educator’s Goal:

- To create personally meaningful learning experiences
- Within a socially stimulating and rewarding cultural context
- Using world class media resources
- At an affordable price
Role of the Networked Educator

- If one thinks a teacher’s job is to dispense information, then teachers are obsolete.

- Teacher’s job is “to provide access:
  - to other people who can be identified with,
  - to members of the communities and clubs where interesting and worthwhile things are done". Frank Smith, 1995
  - to stimulating learning environments
Learning Networks

- A Learning network connects
  - Learners, teachers, content,
  - Agents, resources and accrediting institutions

- How does one navigate and participate in a network with very large numbers of learners, resources and global educational services?
Learning Networks

- Matching learner to the learning path
  - Portfolio and manual analysis
    - Expensive and time consuming – but necessary
  - Folksonomies and informal referral (social software)
  - Stygmatic techniques
  - Machine match (LSA) between content and skills learner has (e-portfolio) and that of the learning path
  - Machine analysis of metadata match between learner profile (IMS LIP) and content (IEEE LOM)
Your Strategic Educational Advantage

- Net embracing
  - Faculty
  - Community
  - Student and business services
  - Content creation and distribution
  - supporting personal connections

- Multiple course formats
  - Online
  - Blended
  - Variable times

- Niche market programming
"Imagine a school with children that can read or write, but with teachers who cannot, and you have a metaphor of the Information Age in which we live.” Peter Cochrane
The Pedagogy of Net based Teaching and Learning

“our educational discourse is largely stuck in a time warp, framed by issues and standards set decades before the widespread use of the personal computer, the Internet, and free trade agreements.” Stewart & Kagan (2005)

- social constructivism theories
- learner freedoms
- learning in virtual spaces
- self-directed learning
Social constructivism

- Vygotsky – social construction and validation of knowledge
- Authentic learning - Bruner
- Communities of Practice – Wenger
- Jonassen – Mind tools
Learning Freedom

- Paulsen’s (1993) theory of cooperative freedom:
  - Freedom of space
  - Freedom of pace
  - Freedom of time
  - Freedom of media
  - Freedom of content
  - Freedom of access
  - + Freedom of relationship (Anderson)
Connectivism

- George Siemens “A learning theory for the Digital Age

“Problems are becoming so complex that they cannot be contained in the mind of one individual - problems are held in a distributed manner across networks, with each node holding a part of the entire puzzle.”

www.elearnspace.org/Articles/connectivism.htm
Pedagogy of online existence

- Pedagogy of Nearness
- “social software can positively impact pedagogy by inculcating a desire to reconnect to the world as a whole, not just the social parts that exist online.”

  - Ulises Mejias (2006)
  http://www.line56.com/articles/default.asp?articleID=7533&TopicID=7
Heutagogy

A guide for self directed learners operating in a world in which:

- information is readily and easily accessible;
- where change is so rapid discipline based knowledge is inappropriate to prepare for living in modern communities and workplaces;
- learning is increasingly aligned with what we do;
- modern organizational structures require flexible learning practices; and
- there is a need for immediacy of learning

(Hase and Kenyon, 2000)
Three Examples

- Evaluate technology interventions by seeing how it changes behaviour and attitudes –
  - What do people do?
  - What do they tell about their experience?
  - What have they learned from that experience of learning?
  - Is the learning consistent with your idea of an educated person in the 21st Century
Participatory Learning Networks

- Networked Learning Communities
  - 110 funded in UK
  - Each project funded $110,000 over 3 years
  - Cluster of 6-10 schools
  - Motivated by a desire to enhance learning
  - Need to generate an intervention agenda
  - Self governed

- Is intervention properly assessed?

“It always requires effortful facilitation to counter the familiarity and comfort of local practice and foster productive communication across practices”. Thorpe and Kublak, 2005
About CIDER

Thank you for your interest in The Canadian Institute of Distance Education Research (CIDER), the research arm of the Centre for Distance Education at Athabasca University - Canada’s Open University. If you are new to CIDER and would like to learn more, visit "About" for a full description of the Institute, its aims and its activities.

Are you interested in becoming involved in CIDER? If so, you must first join CIDER, and then register as a CIDER Fellow or CIDER Student. Registering as a CIDER Fellow or CIDER Student costs nothing, yet adds value to both yourself, and the growing community of distance education researchers.

Get involved! Plan on attending this year’s line-up of CIDER Sessions. Also, visit the various Special Interest Groups (see below) and join the debate.

For more information, please email Paula Smith at paula@athabascau.ca. Please click on CIDER Brochure for a downloadable PDF of CIDER activities.

Recent postings from the CIDER Special Interest Groups

The Core of Input:
David Richardson, Apr 10, 2006, Instructional Design SIG

Keeping an analogue component in your design:
David Richardson, Mar 29, 2006, Instructional Design SIG
April 05, 2006

**Open Educational Resources Report available**

http://terrya.edublogs.org/2006/04/05/open-educational-resources-report-available/

The report of UNESCO’s International Institute for Educational Planning (IIEP), with support from the William and Flora Hewlett Foundation, on the subject of Open Educational Resources (open content for higher education) has been released. The report synthesizes discussion from an online form that was held in Oct and Nov 2005 and attracted almost [...]
Whose got the time?

- Time competence - skills at choreographing creatively all of our time commitments
- Working more effectively,
- Sharing more effectively
- Meeting more effectively
- Using the Net to expedite current interests
Use your students

- Linking media, marketing, web programming and other courses as resources for development of artifacts and interventions with your faculty.
- Using new media to showcase your learners and faculty contributions
- Use talents of students See cider.athabascau.ca/Members/terrya
The Open Source Model of collaborative change

- Work on a real task, connected to your strategic goals
- Engage key academic values of;
  - Recognition
  - Respect
  - Community
  - Gift culture
  - Expertise
  - Reflection
- Use the net extensively
How Does Change Happen?

- Many theories, too little empirical tests in educational institutions.
- 3 forces need to align:
  - Perceived benefits – Personal
  - Readiness - Organizational
  - Pressure – Inter-organizational
    - Chwelos; Benbasat; Dexter, 2001)
Individually alone, no matter how competent or charismatic, never have all the assets needed to overcome tradition and inertia.

John Kotter Leading Change 1996
Educational Change Checklist

D. Ely (1999)
- dissatisfaction with status quo,
- skills and knowledge
- * adequate resources
- rewards and incentives
- time provided to learn,
- * participation and shared decision making,
- commitment from upper management
- leadership from lower management.

Beyond the LMS to Personal Learning Environments (PLEs)

- My work
- My social Life
- My media
- My calendar
- My hobbies
- My school(s)
- My profile
- My publications
- E-portfolios
- My conversations(s)
- My files, my pocasts
PLE - Blog as PD – 3rd Gen Virtual Conference

Library & Information Resources

We are pleased to announce that the following presenters will participate in the HigherEd BlogCon Library & Information faculty track and will be published here during the week of April 2006.

Blogging in Libraries

Blogging 101

Susan Herzog
Eastern Connecticut State University
http://susan-blog.blogspot.com/

Subject Librarian 2.0? - ‘The Song Remains the Same,’

http://www.higheredblogcon.com
Conclusion #1

Sweden’s small and distributed populations means, educators should:

- Produce, consume and re-purpose content of the top enrollment courses
- Create a limited number of niche market products that can be distributed across the Net’s long tail
- Embrace collaborative course and credit sharing
Conclusion#2:
The Reflective Administrator's Response to The Connected World

- Repurpose your institution for lifelong learning, formal and informal learning
- Support Open Access
- Encourage your learners and staff to be producers as well as consumers of content
- Constructively deal with cost issues
- Aggressively research interventions
Conclusion #3 - Personally Experience the Connection

- Because you are not a net native does not mean you must live in a ghetto and never learn to speak the language
- Start a blog, read a blog, get an RSS aggregator
- Join an online community
- Take time for surfing
- Discover at least one new web service or resource a week
- Post a picture
- Have fun and do this forever!
Critical Advocacy

http://www.work-learning.com/chigraph.htm

See Wiman & Mierhenry, Educational Media, Charles Merrill, 1960, for reference to Edgar Dale's Cone of Experience.

*Question marks refer to the unknown.
You turn

- Terry Anderson
- terrya@athabascau.ca
- Slides at
  http://cider.athabascau.ca/Members/terrya/slides/