Active Learning with Technology: Myths, Magic, and Mucho Motivation

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Telegraph: Flattening the world in 1860

Schools of the 1880s

Eighth-grade students Tayler Bernholtz, left, Amy Lostroh and Kelsey Cardiff check out a weblog discussion related to the Civil War historical-fiction book 'Guerrilla Season' at South Valley Junior High School in Liberty, Mo. (Blogging now begins young USA Today, By Ashley Bassina, USA TODAY, November 15, 2006, 12D). http://www.usatoday.com/life/2006-11-14-blogs-education_x.htm

Constantly hit on the head about integrating technology...
Technology of the 1980s

21st Century Technology: Podcasts and Wikis and Blogs, Oh My!!!!

Nature AND Nurture: Pedagogy

I. Myths: No Models or Best Practices

I. Student Technology Myths
1. They all are Web 2.0 savvy and equipped.
2. Some will dominate and intimidate others.
3. Will be too off task and social online.
4. Online cheating is the key reason not to teach with tech.
5. Online students are located far away.

Simulation: Xer
- "The skill to be valued in the twenty-first century is not the length of attention span, but the ability to multitask - to do many things well at once... [and] the ability to process visual information very rapidly." (Rushkoff, 1996:50)
Learner Control: Xer

- Xers expect a range of options, in terms of what they learn and how they learn it. They require autonomy and flexibility for their own learning. They demand a variety of instructional methods from which they can choose to learn, e.g., videotapes, self-paced modules, interactive CDs.
  - "Online gives me something to do when I'm bored with the professor."
  - "I respect myself more as a self-teacher."
- Dziuban, Moskal, & Hartman (2005)

II. Magic....

Podcasting
http://itunes.stanford.edu/

Podcast Questions

1. Who has listened to a podcast?
2. Who listens to a certain podcast on a regular basis?
3. Who has created a podcast?
4. Who has created a vodcast?
5. Who thinks podcasting is simply more talking heads?

Wikis

European History

- "The main point of this presentation is that Europe is not just the end of the world."
- "History is important because it shapes the way we think about the world and our place in it."
- "A critical perspective is crucial to understanding history."
- "History is relevant to understanding the present, and it is a tool for critically thinking about the future."

A Survey of Modern European History

"The past is a prologue to the future of this country."

Geography of Europe

Greece, Italy, France, Spain, Portugal, Belgium, Luxembourg, the Netherlands, Germany, Austria, Switzerland, Liechtenstein, Monaco, the Czech Republic, Slovakia, Poland, Hungary, Romania, Bulgaria, Greece, Turkey, Russia, Ukraine, Belarus, and the Baltic States. 
Open Access Books

Wiki Questions
1. Who regularly reads Wikipedia articles just for fun?
2. Who regularly reads Wikibooks?
3. Who seeks Wikipedia for content?
4. Who has edited or written new articles on Wikipedia or Wikibooks?
5. Who thinks it is ok for college students to cite from Wikipedia?

Growth of Online Learning in Secondary Schools

What if our minds were on fire for learning?

Dual Coding Theory

Next Generation of Students
Tech Creates Bubble for Kids
Alessandro Gonzalez, USA TODAY, Updated 6/20/2006 10:34 AM ET
Yahoo News
Love me, love my blog," as Netorati couple-surf
BY SARA LEDWITH Thu Aug 3, 8:30 AM ET
-- "For my birthday, he upgraded my
RAM and I thought it was incredibly

Bonk's Addiction Q'er
1. Who has 2 or more cell phones with
   Internet access?
2. Who has 2 or more laptop computers
   with wireless connections?
3. Who is on email in the morning? At
   noon? Who does it at night?
4. Who suffers from nervous tension
   when you cannot get on email?
5. Who is on the Web right now?

Magic Pens! (The Pulse from Livescribe)

Capella Tower
225 South Sixth Street, Minneapolis
Formerly, the "Halo"

Adventure Blogging:
North Pole Marathon
Top 5 “In” Things on Campus
June 7, 2006, USA Today

Most ID Models in the 1980s Prescriptive

Behavioristic Interactivity

Activities Part III.
Motivational Ideas

• I did not direct my life. I didn't design it. I never made decisions. Things always came up and made them for me. That's what life is.

Top Reasons for Dropping Out
(Deosnews, May 2004; Frankola, 2001)
• Lack of time
• Lack of management oversight
• Lack of motivation
• Lack of student support
• Individual learning preference
• Poorly designed course
• Substandard/Inexperienced instructor
**Student Retention: Are Schools Taking Advantage of Technology?**

*5/13/2008 By David Nagel*  
*Campus Technology*

[Bar charts and graphs showing data on technology use and its importance in student retention programs.]

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**Ok, Million Dollar Question: How do you motivate online learners?**

[Images of dollar bills and people discussing motivation.]

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**Three Most Vital Skills**  
*The Online Teacher, TAFE, Guy Kemshel-Bell (April, 2001)*

- Ability to engage the learner (30)
- Ability to motivate online learners (23)
- Ability to build relationships (19)
- Technical ability (18)
- Having a positive attitude (14)
- Adapt to individual needs (12)
- Innovation or creativity (11)

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**Intrinsic Motivation**

"...innate propensity to engage one's interests and exercise one's capabilities, and, in doing so, to seek out and master optimal challenges  
(i.e., it emerges from needs, inner strivings, and personal curiosity for growth)"


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**I even reflected on this for a moment...I thought about the people I met**
Factors in Creating any Community (Rick Schwier)

1. Membership/Identity
2. Influence
3. Fulfill of Individuals' Needs/Rewards
4. Shared Events & Emotional Connections

(Mcmillan & Chavis, 1986)

Model of Teaching and Learning Through CMC (Gilly Salmon, 2000)

TEC-VARIETY Model for Online Motivation and Retention

1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Encouragement, Feedback: Responsive, Supports
3. Curiosity: Fun, Fantasy, Control
4. Variety: Novelty, Intrigue, Unknowns
5. Autonomy: Choice: Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactive: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Excitement
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Products, Success, Ownership

1. Tone/Climate:
   A. Coffee House Expectations
      1. Have everyone post 2-3 course expectations
      2. Instructor summarizes and comments on how they might be met
   B. Public Commitments: Have students share how they will fit the coursework into their busy schedules

1. Tone/Climate: C. Accomplishment Hunt
   (L = Cost, M = Risk, M = Time)
   a. Turn in 2-3 accomplishments (e.g., past summer, during college, during life);
   b. Teacher lists 1-2 of those for each student on a sheet without names.
   c. Participants have to ask "Is this you?" If yes, get a signature.
1. Tone/Climate: D. Video Course Intros
   (examples from Northern Virginia Community College
   and Indiana University KD (online MBA) program)

2. Encouragement, Feedback, etc.:
   A. Critical/Constructive Friends, Email Pals...
   B. Instructor Presentation in Synchronous Sessions
      (Breeze, Elluminate, WebEx, etc.)
   C. Thinking About the Readings (TARS) JITT;
      Claude Cookman, IU, Photography Class

3. Curiosity, Fun: A. Games
   e.g., Online Jeopardy Game
   Games2Train: The Challenge; Thiagi.com

   3. Curiosity, Fun:
      B. Virtual Field Trips

   eSchool NEWS
   www.eschoolnews.com

   Gas prices fuel rise in virtual field trips
   As soaring costs make traditional travel impossible for many
   school systems, a new technology is opening the door:
   virtual tours of national landmarks or remote places
   that provide a educational and entertaining way for
   students to visit places that they might not otherwise see.
3. Curiosity, Fun:
C. Exploration and Demonstration:
Virtual Tours and Timelines (HyperHistory)
http://simile.mit.edu/timeline/

3. Curiosity, Fun:
D. Electronic Seance
- Students read books from famous dead people
- Convene when dark (sync or asynchronous)
- Present present day problem for them to solve
- Participate from within those characters (e.g., read direct quotes from books or articles)
- Invite expert guests from other campuses
- Keep chat open for set time period
- Debrief

4. Variety, Novelty:
A. Video Streamed Lectures & Expert Commenting

4. Variety, Novelty:
B. Brainstorming Chat
- Come up with interesting or topic or problem to solve
- Anonymously brainstorm ideas in a chat discussion
- Encourage spin off ideas
- Post list of ideas generated
- Rank or rate ideas and submit to instructor
- Calculate average ratings and distribute to group

5. Autonomy, Choice: A. Read, Listen, etc.
to online books (e.g., "An International Episode" by Henry James)

5. Autonomy, Choice: B. Online Literature Search (Class Google Jockeys)
The Electronic Literature, in Search of a Voice, June 1, 2007, Chronicle of Higher Education, Jeffrey Young
(links to text, soundtracks, video clips, etc.)
5. Autonomy, Choice:
C. Volunteer Technology Demos (Bork, 1996)
- Take students to a computer lab.
- Have students conduct a technology demonstration that relates to something from the class (replaces an assignment).
- Include handout
- Debrief

5. Autonomy, Choice:
E. Multiple Topic Forums or Task Options
- Generate multiple discussion prompts and ask students to participate in 2 out of 3.
- Provide different discussion “tracks” (much like conference tracks) for students with different interests to choose among.
- List possible topics and have students vote (students sign up for lead diff weeks).
- Have students list and vote.

5. Autonomy, Choice:
F. Online Portal Explorations

What have you learned so far?
- Solid and Fuzzy in groups of two to four

6. Relevance, Meaningfulness:
A. Authentic Data Analysis
Jeanne Sept, IU, Archaeology of Human Origins; Components: From CD to Web
- A set of research q’s and problems that archaeologists have posed about the site
- A complete set of data from site
- Students work collab to interpret age of site
- Interpret of ancient environments
- Analyze artifacts/fossils from site
6. Relevance, Meaningfulness:
   B. Mobile News (New York Times): A new way to take your news with you on the iPhone and iPod touch

7. Interactive, Collaborative:
   A. Online Language Learning (Mixter, Livemocha, Friends Abroad)

7. Interactive, Collaborative:
   D. Panels of Experts: Be an Expert/Ask an Expert: Have each learner choose an area in which to become expert and moderate a forum for the class. Require participation in a certain number of forums (choice)
   E. Press Conference: Have a series of press conferences at the end of small group projects; one for each group
   F. Symposia of Experts
   G. Structured Controversy

6. Relevance, Meaningfulness:
   C. 99 Second Quotes
   \( L = \text{Cost}, \ M = \text{Risk}, \ M = \text{Time} \)
   - Everyone brings in a quote that they like from the readings
   - You get 99 seconds to share it and explain why you choose it in a sync chat or videoconference
   - Options
     - Discussion wrapped around each quote
     - Small group linkages—force small groups to link quotes and present them
     - Debate value of each quote in an online forum

7. Interactive, Collaborative:
   B. Discussion: Starter-Wrapper (Hara, Bonk, & Angeli, 2000)
   1. Starter reads ahead and starts discussion and others participate and wrapper summarizes what was discussed.
   2. Start-wrapper with roles—same as #1 but include roles for debate (optimist, pessimist, devil's advocate).
   C. Alternative: Facilitator-Starter-Wrapper (Alexander, 2001)
   Instead of starting discussion, student acts as moderator or questioner to push student thinking and give feedback

7. Interactive, Collaborative:
   G. Mock Trials with Occupational Roles
   \( L = \text{Cost}, \ H = \text{Risk}, \ M/H = \text{Time} \)
   a. Create a scenario (e.g., school reform in the community) and hand out to students to read.
   b. Ask for volunteers for different roles.
   c. Perhaps consider having key person on the pro and con side of issue make a statement.
   d. Discuss issues from in role (instructor is the hired moderator or one to make opening statement; he/she collects ideas on document camera or board).
   e. Come to compromise.
7. Interactive, Collaborative:
H. Peer Mentoring Sessions
(Bonk, 1996)
1. Have students sign up for a chapter wherein
   they feel comfortable and one that they do
   not.
2. Have a couple of mentoring sessions in class.
3. Debrief on how it went.

7. Interactive, Collaborative:
J. Numbered Heads Together
a. Assign a task and divide into groups (perhaps
   4-6/group).
b. Perhaps assign group names across class or
   perhaps some competition between them.
c. Count off from 1 to 4.
d. Discuss problem or issue assigned.
e. Instructor calls on groups & numbers.
   a. e.g., in a research methods class, one
      person reads intro, another the method,
      another the findings, discussion,
      implications, etc.

7. Interactive, Collaborative:
I. Human Graph
• Class lines up: (1-5)
  1 = Strongly agree,
  3 = neutral,
  5 = strongly disagree
  e.g., this workshop is great!
  • In a videoconference or synchronous
    session, have students line up on a
    scale (e.g., 1 is low and 5 is high) on
    camera according to how they feel about
    something (e.g., topic, the book, class).

8. Engagement, Effort:
A. Text Messaging
Students at the Mennonite Centre for Newcomers
are testing mobile learning - downloading an English
grammar lesson, then answering a series of multiple
choice, or true or false questions. (Edmonton)
Friday, February 9, 2007, CBC News

8. Engagement, Effort:
B. Just-In-Time Syllabus
(Raman, Stodkert, & Soon)
Syllabus is created as a "shell" which is
thematically organized and contains print,
video, and web references as well as
assignments. (Goals = critical thinking,
collab, develop interests)
e.g., To teach or expand the discussion of
supply or elasticity, an instructor might add
new links in the Just-In-Time Syllabus to
breaking news about rising gasoline prices.
8. Engagement, Effort:
D. Mobile Literacy (e.g., Pocket School)

9. Tension, Challenge, etc.:
A. Online Role Play of Famous People, Mock Trial, Debates, etc.
- Enroll famous people in your course
- Students assume voice of that person for one or more sessions

99 seconds: What have you learned so far?
- Solid and Fuzzy in groups of two to four
Time for Convergence!!! (activities that do not fit neatly)
Combining Web 2.0 and Other Online Technology Trends (Twelve Examples)

1. Flat Schools and Flat Classroom Projects!!!

2. Michelle Selinger, ALT-C Keynote, September 2007, Univ of Nottingham

3. Breeze in Higher Education

4. YouTube Research Group in Facebook

5. Elliott Masie, Podcast + Video + Transcript
   Learning TRENDS by Elliott Masie
6. Archive Last Lectures
(Randy Pausch, Carnegie Mellon University)

7. Combining The Web 2.0 (e.g., Second
Life, Blogging, and Photo Posting)
Stephen Mandelbrot

8. Indexing Sounds in
Cities with Google Maps

9. Cluster Maps (who is reading your blog or using
your product): Blog of Will Richardson, famous K-12
blogger (left) and Learning Theories Book of
Michael Grey, Univ of Georgia (right)

10. Vlogging (Video Blogging)
e.g., Andy Calvin's Waste of Bandwidth
Michael L. Wesch, Kansas State, The Machine is Using Us

11. Serious Games Blog with video of
Wikipedia and Mahalo Founders and Google
scanning people in background
12. You Ustreamed my Ustream:
Now that's a Twitter of an Idea

Try the R2D2 Method!!!
Try TEC-VARIETY!!!
Sample papers at: http://www.publicationshare.com/
Archived talks at: http://www.trainingshare.com/

It is both Nature AND Nurture as well as
PEOPLE!!! Technology is just part of the
Equation

Technology
Pedagogy

People,
Society, Culture,
etc.