

R2D2 to the Matrix: A Galaxy of Online Learning Style, Motivational, Blended Learning, and Learner-Centered Examples

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21 Things That Became Obsolete This Decade
 December 11, 2009, Silicon Alley Insider

15 Gadgets that Changed Everything This Decade
 December 9, 2009, Jay Yarow, Silicon Alley Insider

Technology for Learning Expands
 College tech 'catching up' with students
 Kathleen Gray & Robin Erb, USA TODAY, Oct. 6, 2009

Senior Emily Smak, 20, tries out the treadmill workstation in one of the study lounges in the new Education and Human Services Building at Central Michigan University. There is a new iMac computer attached to it so students can get a little exercise while doing homework or other things on the computer.

Mobile Learning and Blended Learning Exploding
 College tech 'catching up' with students
 Kathleen Gray & Robin Erb, USA TODAY, Oct 6, 2009

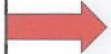
- At Abilene Christian (University)...about 2,800 students and 70% of the 250 professors use the Apple technology for instructional purposes.
 - Art students use app to draft sketch and send it to the teacher and other students for advice before starting the real art pieces.
 - A drama teacher takes video of the lead dancer in a production and sends that along to other students for rehearsal.

Part I. Blended Learning

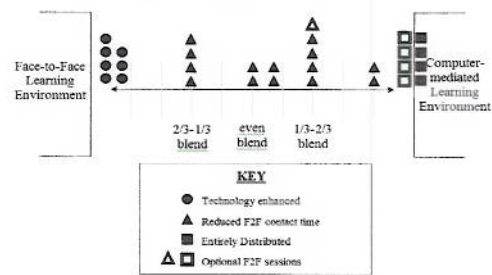
1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. Implications for blended learning

Myth #1: People will know what I am saying when I say "blended learning."
Myth #2: Blended is the same as "hybrid."
The Sloan Consortium

Proportion of content delivered online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used - content is delivered in writing or orally.
1 to 29%	Web facilitated	Course which uses web-based technology to facilitate what is essentially a face-to-face course. Might use Blackboard or WebCT to post the syllabus and assignments, for example.
30 to 79%	Blended/Hybrid	Course that is a blend of the online and face-to-face course. Substantial proportion of the content is delivered online, typically uses online discussions, typically has some face-to-face meetings.
80+%	Online	A course where the vast bulk of the content is delivered online. Typically has no face-to-face meetings.




Myth #3: Knowing "how much" to blend is vital.
Range of Blends in Pew Cases



Source: Graham, C. R., & Allen, S. (2005). Blended learning: An emerging trend in education. In C. Howard & J. V. Boettcher & L. Justice & K. D. Schenk & P. L. Rogers & G. A. Berg (Eds.), *encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.


Myths #4: Blended learning is easy to define.
Myth #5: Blended learning is hard to define.
Blending Online and F2F Instruction

- "Blended learning refers to events that combine aspects of online and face-to-face instruction" (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)




Myth #6: Blended learning works everywhere.
Where is Blended Beneficial?

- Large Classes (spanish, intro psych, algebra, elementary statistics, biology)
- Classes with working students
- Students spread over a distance
- Classes with certification
- Classes with need for standardization
- New requirements for a profession
- Writing intensive classes
- Theory classes

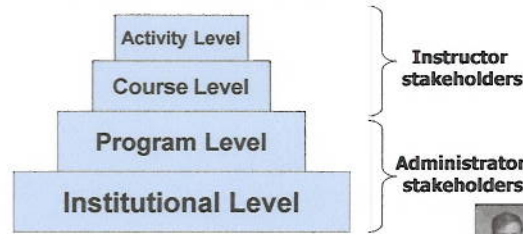



Myth #7: People learn more in face-to-face settings.
Fully Online and Blended Learning Advantages

1. Increased Learning (better papers, higher scores)
2. More effective pedagogy and interaction
3. Course access at one's convenience and flexible completion (e.g., multiple ways to meet course objectives)
4. Reduction in physical class or space needs, commuting, parking
5. Increased opportunities for human interaction, communication, & contact among students
6. Introverts participate more

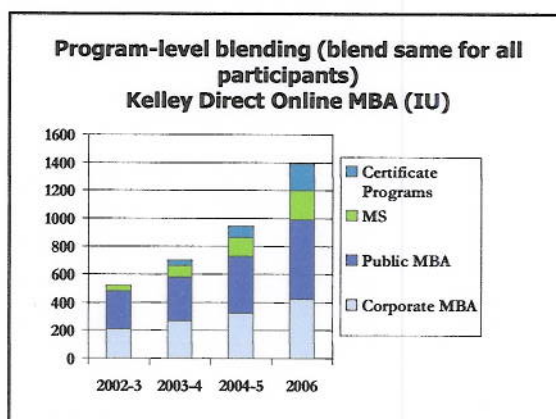


Myth #8: Faculty can have a logical discussion with administrators about blended learning.
Models of Blending
Blending occurs at the following four levels:

Myth #9: There is one best model of blended.
AMA Special Report, Effectively Implementing a Blended Learning Approach (Steven Shaw & Nicholas Igneri, 2006)

Source: American Management Association, AMA at Work.



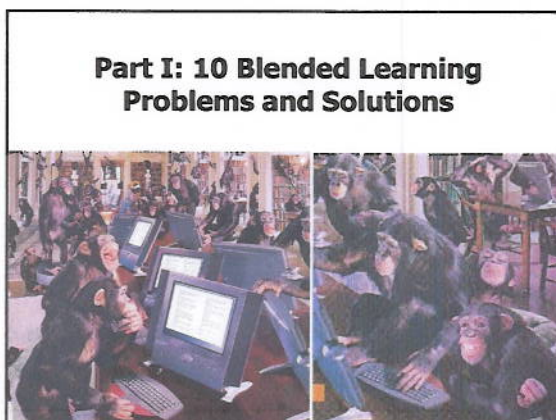
The IBM Four Tier Learning Model (2006)
Blending Learning for Business Impact – IBM's case for learning success, 2006 Handbook of Blended Learning, Nancy Lewis, VP, & Peter Orton, IBM

Institutional-level Blending (Abtar Kaur & Ansary Ahmed, 2006, Open U Malaysia)

FIGURE 22.1. OPEN UNIVERSITY MALAYSIA'S BLENDED LEARNING MODEL.

Myth #10: Blended learning has exploded at the University of Phoenix.
Institutional-level Blending (Brian Linquist, 2006)
Example 2: University of Phoenix

- Completely online courses
- Residential F2F courses
- Blended Courses
 - *Local Model* = 5 week courses with first and last week F2F
 - *Distance Model* = 5 week courses with half first and half last week F2F (the last meeting of one course is coordinated to be back-to-back with the first meeting of the next 5 week course)



Problem = Time; Blended Solution #1+. Sample Activities for Brief Mtgs

1. Assign web buddies, email pals, critical friends based on interests, confidence, location, etc.
2. Ice breakers—paired introductions, corners.
3. Solve case in team competitions with awards.
4. Test technology in a lab.
5. Assign teams and exchange info for small teams using text messaging.
6. Library (digital and physical) scavenger hunt.
7. Do a podcast documenting the meeting.
8. Have everyone create a blog on the experience.
9. Open an e-portfolio for each student
10. Brainstorm how might use technology in program.

Problem = Space; Blended Solution #2. Alternating FTF and Online Classes

- Freshman English at BYU: Students are required to meet F2F once a week instead of three times a week. Same in a multimedia class at Beijing Normal University (BNU)

Problem = Speed; Blended Solution #3. Online Professional Development (e.g., STARLINK, www.starlinktraining.org)

Problem = Quality Web Supplements; Blended Solution #4. Online Referenceware

Problem = Listening Skills; Blended Solution #5. Podcasts, Audio Portals, etc. (e.g., Basic Acoustics of Musical Instruments; University of New South Wales)

Problem + Reflection; Blended Solution #6. Expert Video Reflections and Scaffolds online (E-Reading First Ohio; reflect, share, and compare)

Problem = Visualization; Blended Solution #7. Flash, 3-D Visualization, & Laboratory Software

Problem = Authentic Experiences; Blended Solution #8. Real World Problems (PBL online): Real-time Cases

Problem = Teamwork and Analysis Skills; Blended Solution #9. Paired Wikibook Chapter Critiques

- Ask students to critique a wikibook or page from Wikipedia

Problem = Instructor Presence; Blended Solution #10. Instructor Presentation in Synchronous Sessions (Breeze/Adobe Connect Pro, Elluminate, WebEx, Dim Dim)

Implications and Challenges for Blended Learning

1. Faculty and students are more mobile.
2. Students more choices.
3. Student expectations rise.
4. Greater self-determined learning.
5. More corporate university partnerships.
6. Courses increasingly modular.
7. Less predefined schedules.
8. When teaching less clear; when learning less clear.

Part II. Some Online Motivational Ideas

We are not motivating students with the technologies that they love



Ok, Million Dollar Question: How do you motivate online learners? What Words come to mind?



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)

See: Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. NY: Plenum Press.

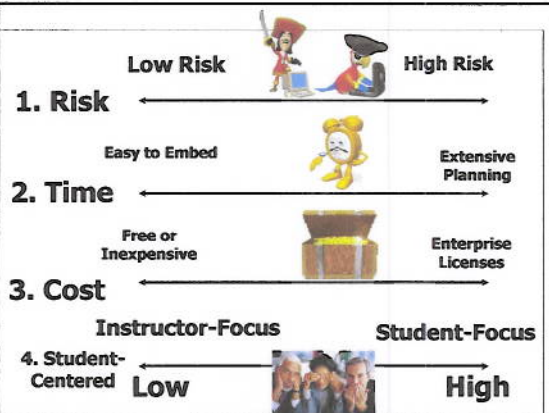


I even reflected on this for a moment...and then something magical happened...




Magic #1: 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: Social Ice Breakers


A. Public Commitments:
Have students share how they will fit the coursework into their busy schedules



B. Favorite Websites

- Everyone posts 1-2 of their favorite Websites and explain why.
- Peers comment on or rate them.


1. Tone/Climate: C. Video Course Intros
 (examples from Northern Virginia Community College and Indiana University KD (online MBA) program)



2. Encouragement, Feedback, etc.:

A. Online Self-Testing (e.g., self study in vocabulary, anatomy, chemistry, dissection, etc.)

Upper Extremity Muscles

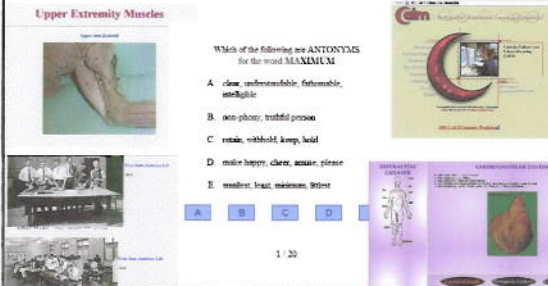


Which of the following are ANTONYMS for the word MAXIMUM?

- slow, unfeasible, formidable, negligible
- non-phazy, truthful person
- entire, without keep, hold
- make happy, clear, assure, please
- weaker, less, minimum, lesser


A B C D

1 / 20



2. Encouragement, Feedback, etc.:


B. Tutorials with Screen Capture (e.g., Jing, Screnr)




3. Curiosity, Fun:

A. Online News
 (Giant jellyfish, Tiny T. rex, and Ardi)


Japanese fishermen brace for giant jellyfish



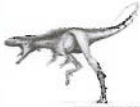
First U.S. man since 1952 wins NYC race





Australia: Boat sinks with 39 on board



Tiny T. rex



Ardi





4. Variety, Novelty:

A. Cool Resource Provider or Tech Demos

- Have students sign up to be a cool resource provider once during the semester.
- Have them find additional paper, people, electronic resources, etc.
- Share and explain what found with class.

PS40 Cool Resource Provider and Moderator Sign Up Sheet




4. Variety, Novelty:
B. Expert Chats
 (Bonk, 2007; Liang & Bonk, 2009)


1. Agree to a weekly chat time.
2. Bring in expert for discussion or post discussion topics or issues.
3. Summarize or debrief on chat discussion.




5. Autonomy, Choice: A. Online Literature Search (Class Google Jockeys)
 (links to text, soundtracks, video clips, etc.)



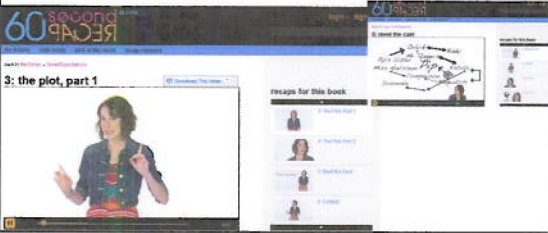
5. Autonomy, Choice:
B. Clickers; Innovation is but one click away...




5. Autonomy, Choice:
C. Famous Person Web Explorations, Searches, Twitter Tracking, and Interviews
 (e.g., Thomas Friedman, NY Times reporter)



6. Relevance, Meaningfulness:
A. 60 Second Recap, Jenny Sawyer
<http://www.60secondrecap.com/>
 Access to students: Lend me your earbuds!
 English major, 24, rambunctiously recaps the classics in 60-second Web videos; By Greg Toppo; USA TODAY, September 2009



7. Interactive, Collaborative:
A. Online Language Learning
 (ECpod, Mixer, Livemocha, Babbel, KanTalk)



7. Interactive, Collaborative: B. Collaborative Groups (Ning, Google Groups, MSN Groups, Yahoo Groups, Diigo)

Ning in Education
Using Ning for Educational Social Networks

My Profile Members Groups Blog Site

Education Ning Education
Ning Education

Ning in Education
Education Social Network

Ning

7. Interactive, Collaborative: C. Collaborative Documents (Google Docs) and Bookmarking (Diigo, Delicious)

Google docs
Create and share your work online

- Spread files and links to your friends
- Edit anyone, from anywhere
- Most sites can access your documents
- Works straight out of your browser
- Files are always securely stored
- It's free!
- [Screenshot](#) • [New Features](#)

Google docs
Create documents, spreadsheets and presentations online

Google docs
Create, host, Accounts have search for your files in Google

8. Engagement, Effort: A. Synchronous Learning

www.wiziq.com
[Live Session](#)

Multimodal Interactions

- Dr. Lee posts his discussion materials on the web.
- Participants discuss the case synchronously

8. Engagement, Effort: B. Synchronous and Asynchronous Events (e.g., Breeze + Video + Online Forum + Online Papers)

cloudix

A Talk on the...
...of...

9. Tension, Challenge, etc.: A. Ethical Medical Debates

Students to protest human body exhibit

Meggie Ybarra
Issue date: 3/5/02 Section: News

Protesters human corpses will be on display inside Cannadeo Center through May.

But a group of UNM medical students says it will protest the exhibit because it's

9. Tension, Challenge, etc.: B. Electronic Guests & Mentoring (Simon Fraser University News: http://www.sfu.ca/mediapr/news/2001/Sept6/hightech.html)

Advance Mentoring Healthcare

Healthcare

Electronic Mentoring

Youth Mentoring

10. Yields Products, Goals:
A. Movie Festivals, Concept Maps, Video Papers/Blogs, Virtual Timelines, Digital Movies

Poll #1: How many ideas did you get so far?

1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.

99 seconds: What have you learned so far?

- **Solid and Fuzzy in groups of two to four**

III. Addressing Diverse Learners

Magic #2: The R2D2 Model

The R2D2 Method

1. **Read (Auditory and Verbal Learners)**
2. **Reflect (Reflective Learners)**
3. **Display (Visual Learners)**
4. **Do (Tactile, Kinesthetic, Exploratory Learners)**

1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.



Read 1a. Publishing in Open Access Journals (e.g., PLOS)



Read 1b. Course Announcements (e.g., Teaching with Twitter)



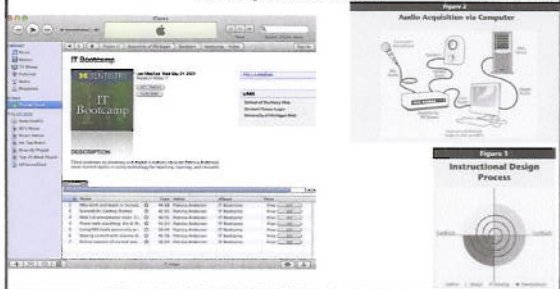
Read 1c. Podcast Paper Reflections

- Students listen to a podcast.
- Reflect on what they learned in an online forum.
- Students comment on each other's post.



Read 1d. Podcasting Medical Lectures (School of Dentistry, Univ of Michigan)

Educause Quarterly, 29(3), 2006, <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/PodcastingLectures/39987>

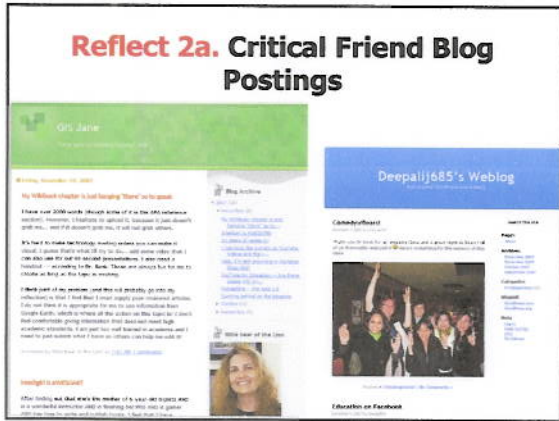


2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



Reflect 2a. Critical Friend Blog Postings



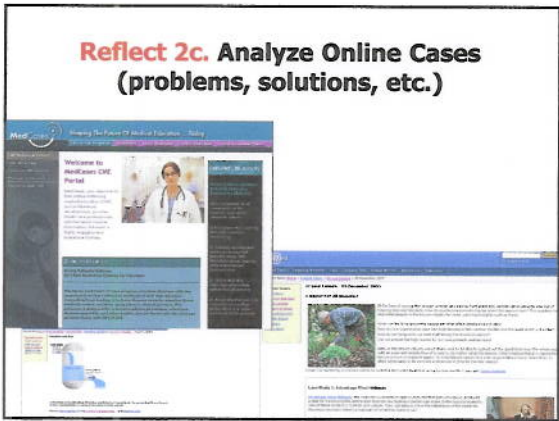
The screenshot shows a blog post with a green header and a blue sidebar. The main content area contains text and a photo of a woman. The title is 'Reflect 2a. Critical Friend Blog Postings'.

Reflect 2b. Expert and Domain Specific Blogs (English Teacher Blogs)



The screenshot shows a website titled 'The English Blog'. It features a red header, a central image of a person with arms raised, and various search and navigation elements. The title is 'Reflect 2b. Expert and Domain Specific Blogs (English Teacher Blogs)'.

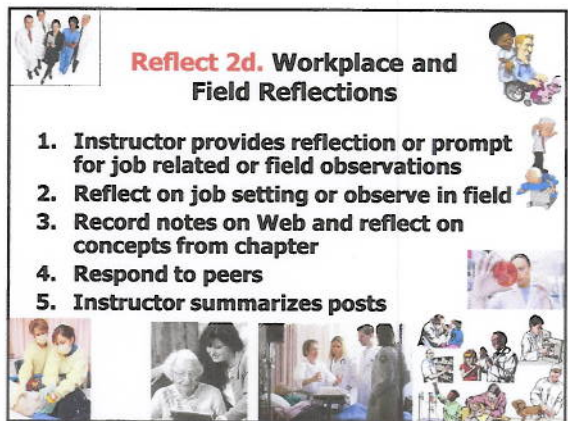
Reflect 2c. Analyze Online Cases (problems, solutions, etc.)



The screenshot shows a website with a blue header and multiple columns of text and images, likely representing medical case studies. The title is 'Reflect 2c. Analyze Online Cases (problems, solutions, etc.)'.

Reflect 2d. Workplace and Field Reflections

1. Instructor provides reflection or prompt for job related or field observations
2. Reflect on job setting or observe in field
3. Record notes on Web and reflect on concepts from chapter
4. Respond to peers
5. Instructor summarizes posts



A collage of small images showing various workplace and field settings, including people in medical or professional environments. The title is 'Reflect 2d. Workplace and Field Reflections'.

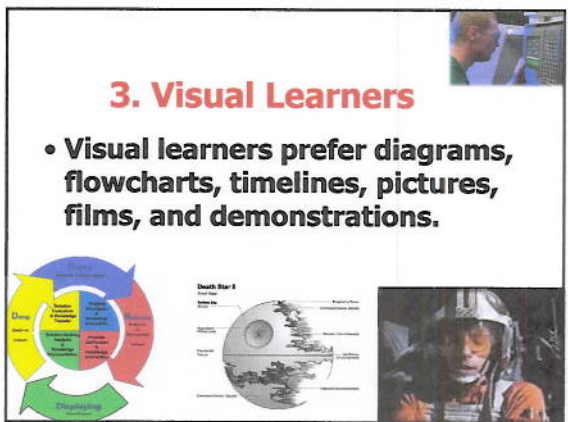
Reflect 2e. Watch or Listen to Online Conferences



The screenshot shows a YouTube video player with a blue header and a video thumbnail. The title is 'Reflect 2e. Watch or Listen to Online Conferences'.


3. Visual Learners

- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.




The block contains several visual elements: a circular diagram with four colored arrows (blue, red, green, yellow) and text; a diagram titled 'Death Star II' showing a cross-section of a planet; and a photograph of a person in a space helmet. The title is '3. Visual Learners'.

Display 3a. Pubcasts! (videos of scientific papers and science)
 NSF, the Public Library of Science, and the San Diego Supercomputing Center created a YouTube for scientists to help demystify important research papers. See SciVee




Display 3b. Anchored Instruction Discussions (YouTube, CNN, BBC, TeacherTube, CurrentTV)


- In a synchronous lecture interrupt it with a summary video (could be a movie clip) explaining a key principle or concept.
- Refer back to that video during lecture.
- Debrief on effectiveness of it.




Display 3c. Adventure Learning
 Australian adventurer Don McIntyre and teenage circumnavigator Mike Perham to re-enact Capt William Bligh's epic mutiny on the Bounty open boat voyage, September 9, 2009




Display 3d. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Giffy, Mindmeister, or Mindomo)



Display 3e. World Trends and Indices (e.g. Worldmapper)



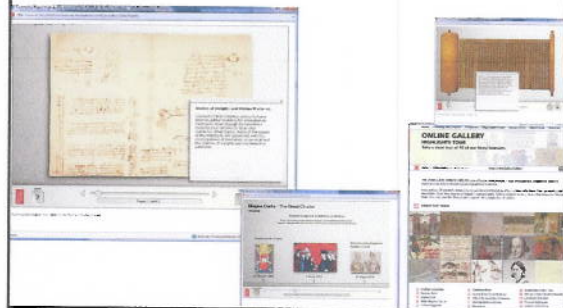
Display 3f. United Nations Opens World Digital Library, April 21, 2009
 Chronicle of Higher Ed, <http://www.wdl.org/en/>



Display 3g. Shared Online Video
(e.g., Howcast, WonderHowTo, Clip Chef, Link TV, Fora TV, etc.)



Display 3h. Online Historical Document
(e.g., Turning The Pages, British Library)



Display 3i. Medical Animations and Videos
(find anchoring event (YouTube, CNN, BBC, TeacherTube, CurrentTV))



Display 3j. Online Timelines
(US Presidents)



Display 3k. Videos of the Periodic Table



Display 3L. Online History Portals and Resources
(Civil Rights Digital Library and Amistad)



Display 3m. Human Embryology Animations (Valerie O'Loughlin, Indiana University)

This screenshot shows a website with a blue header and purple background. It features several sections with text and diagrams illustrating human embryology. The main title is 'Human Embryology Animations' and the author is Valerie O'Loughlin from Indiana University. The content includes sections on 'Gastrulation', 'Neurulation', and 'Organogenesis', with accompanying diagrams and descriptive text.

Display 3n. Download and Use Online 3D Sketches (Google SketchUp; download <http://sketchup.google.com/3dwarehouse>)

This screenshot shows the Google 3D Warehouse interface. The main content area displays a 3D model of a bridge structure, identified as the 'Roosevelt Island Bridge & Motorgate Parking'. The interface includes search bars, navigation options, and a 'Download Model' button. The URL <http://sketchup.google.com/3dwarehouse> is prominently displayed.

Display 30. Shared Online Video Demonstrations (e.g., Monkey See)

This screenshot shows a website with a green header and white background. It features a central video player showing a person cooking. The website is titled 'Display 30. Shared Online Video Demonstrations (e.g., Monkey See)'. The interface includes video thumbnails, a search bar, and navigation links.

4. Tactile/Kinesthetic Learners

- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.

This block contains a diagram of a learning cycle with four stages: 'Doing' (yellow arrow), 'Understanding' (blue arrow), 'Applying' (red arrow), and 'Discovering' (green arrow). The diagram is surrounded by images of students engaged in various activities, including role-playing, dramatization, and hands-on projects.

Do 4a. Wikibooks: International Collaboration (Web 2.0 and Emerging Learning Technologies (The WELT))

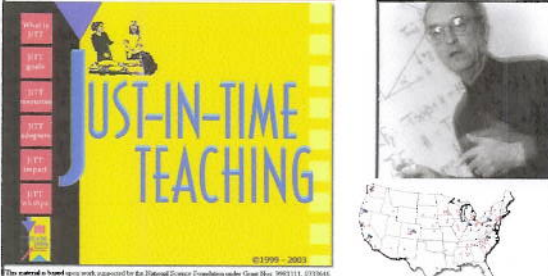
Web 2.0 and Emerging Learning Technologies
From Wikibooks, the open content textbooks collect. Table of Contents

This screenshot shows a Wikibooks page titled 'Web 2.0 and Emerging Learning Technologies'. The page is organized into sections, including 'Part I: Foundations', 'Part II: In...', and 'Part III: Overcoming the Digital Divide (e.g., O...'. The page features a table of contents and a search bar.

Do 4b. Survey Research and Market Analysis (e.g., Mister Poll, MicroPoll, Zoomerang, SurveyShare)


This screenshot shows a survey website with a blue header and white background. It features a search bar and several survey tool options, including 'Mister Poll', 'MicroPoll', 'Zoomerang', and 'SurveyShare'. The website is titled 'Do 4b. Survey Research and Market Analysis (e.g., Mister Poll, MicroPoll, Zoomerang, SurveyShare)'. The interface includes a search bar, a list of survey tools, and a 'Create Your Web Poll - Free' button.

**Do 4c. Online Warm-ups Activities
Just-In-Time-Teaching (JiTT)**
<http://webphysics.iupui.edu/jitt/jitt.html>



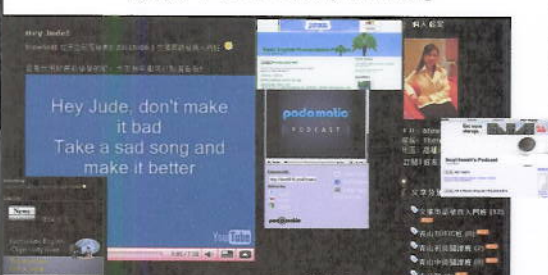
The image shows the 'Just-In-Time Teaching' logo on the left, which includes a vertical list of 'JiTT' activities. To the right is a black and white photo of a man looking at a document, and below that is a map of the United States with a red dot in the Northeast region.

**Do 4d. Syllabus, Glossary, etc. in wiki:
Students sign up for tasks
(Ron Owston, York University)**



The image displays a screenshot of a wiki page with various sections like 'Syllabus' and 'Glossary'. To the right is a photo of Ron Owston, a man in a blue shirt.

**Do 4e. Podcasts for students of
pronunciation class
(e.g., Tzu-Su Chen, Taiwan)**



The image is a collage of various podcast thumbnails and a video player interface. One prominent thumbnail has the text: 'Hey Jude, don't make it bad / Take a sad song and make it better'.

**Do 4f.
Create Video Blogs**


- Have students create a blog with videos or a video blog.
- Have them do a final reflection on it.



The image shows a collage of various video blog thumbnails, including one with the text 'technology' and another with 'The Future'.

**Poll #2: How many ideas did you get
from the second part of this talk?**

- None—you are an idiot.
- 1 (and it is a lonely #).
- 2 (it can be as bad as one).
- 3-5
- 6-10
- Higher than I can count!



The image includes a cartoon illustration of two characters and a red and white striped barrier.

**Try the R2D2 Method!
Try TEC-VARIETY!
And hope for some magic!!!**

Sample papers :
<http://www.publicationshare.com/>
Archived talks:
<http://www.trainingshare.com/>



The image shows three photos: a person holding a lightsaber, a man and a woman making peace signs, and a person in a dark hood holding a lightsaber.