
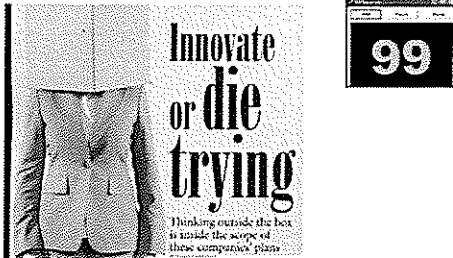
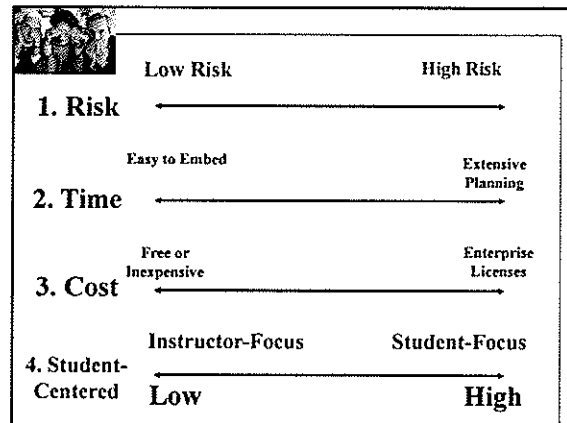
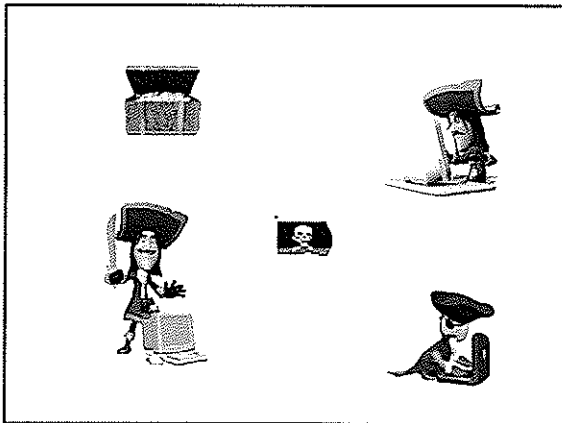


R2D2 on the Matrix: A Galaxy of Online Learning Style, Motivational, Blended Learning and Learner-Centered Examples

Curtis J. Bonk, Professor, Indiana University
 President, SurveyShare
 cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>




Let's Think Outside the Box!
 (For 99 Seconds—what technologies that you might not think about using for learning, might students today prefer to use?)

Task

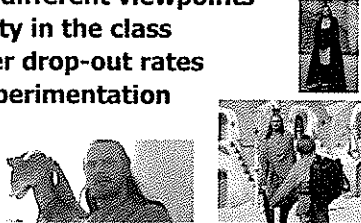
- Ideas definitely Can Use (Circle or write down)
- Ideas you might use (check off or write down in a separate column)
- Ideas you cannot use (cross off or put at the bottom)

Part IV. Addressing Learning Styles




Why Address Learning Styles?

- Promotes reflection on teaching
- Move from just one mode of delivery
- View from different viewpoints
- Offer variety in the class
- Might lower drop-out rates
- Fosters experimentation




Poll 1: Which learning style do you prefer?

- Read (Auditory and Verbal Learners)
- Reflect (Reflective Learners)
- Display (Visual Learners)
- Do (Tactile, Kinesthetic, Exploratory Learners)



VARK learning styles (Fleming & Mills (1992a, 1992b): Four types of learners and learning styles:

- (1) visual;
- (2) auditory;
- (3) reading/writing;
- (4) kinesthetic, tactile, or exploratory,

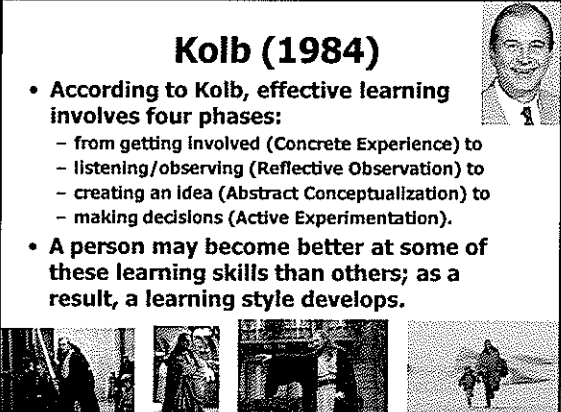


VARK learning styles (Fleming & Mills (1992a, 1992b). Four types of learners and learning styles

1. Visual learners prefer diagrams, flowcharts, graphics (they do not mention video, film, Webcasts, or PowerPoint presentations).
2. Auditory learners prefer to hearing directions, lectures, or verbal information.
3. Reading and writing learners prefer text passages, words, and written explanations.
4. Tactile or kinesthetic learners learn best by connecting to reality through examples, practices, or simulations.


Kolb (1984)

- According to Kolb, effective learning involves four phases:
 - from getting involved (Concrete Experience) to
 - listening/observing (Reflective Observation) to
 - creating an idea (Abstract Conceptualization) to
 - making decisions (Active Experimentation).
- A person may become better at some of these learning skills than others; as a result, a learning style develops.









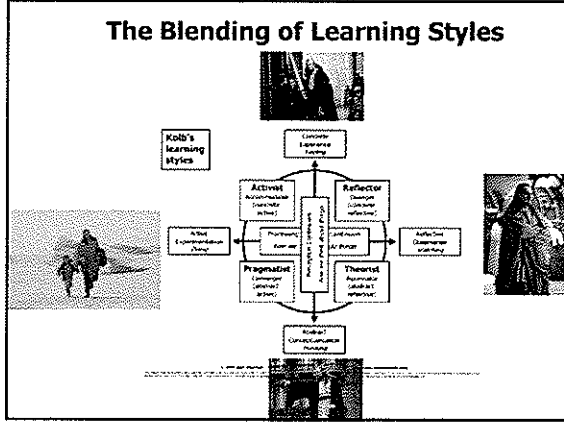
Active Experimentation vs. Reflective Observation

- (AE) - I often produce off-the-cuff ideas.
- (RO) - I am thorough and methodical.
- (AE) - I am flexible and open minded.
- (RO) - I am careful and cautious.
- (AE) - I am loud and outgoing.
- (RO) - I am quite and somewhat shy.




Abstract Conceptualization vs. Concrete Experiences

- (AC) - I am rational and logical. 
- (CE) - I am practical and down to earth. 
- (AC) - I plan events to the last detail. 
- (CE) - I like realistic, but flexible plans. 
- (AC) - I am difficult to get to know. 
- (CE) - I am easy to get to know. 



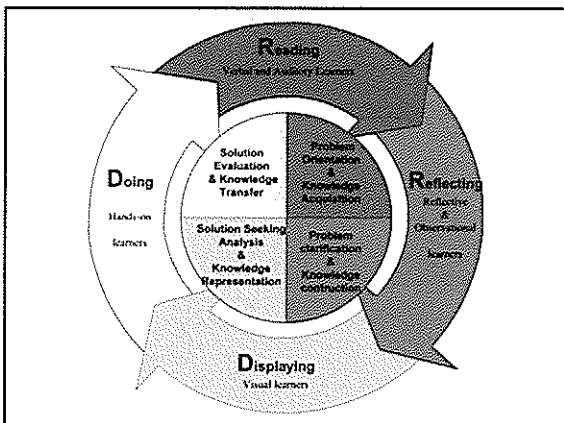
Index of Learning Styles Questionnaire

Barbara A. Soloman, North Carolina State Univ
<http://www.engr.ncsu.edu/learningstyles/ilsweb.html>

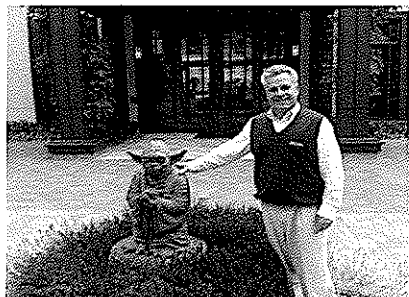


6. If I were a teacher, I would rather teach a course
 (a) that deals with facts and real life situations
 (b) that deals with ideas and theories

7. I prefer to get new information in
 (a) pictures, diagrams, graphs, or maps.
 (b) written directions or verbal information




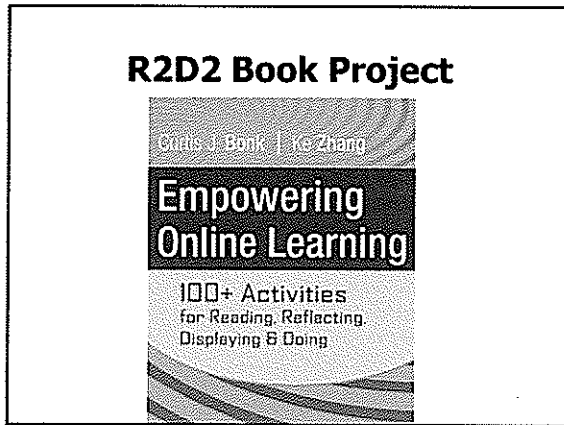
Dean of IU School of Education



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. Course Announcements (e.g., Teaching with Twitter)

Read 1b. Podcasts for Peace (World Bridges and EdTechTalk)

Read 1c. Book reviews and critiques (e.g., LibraryThing)

Read 1d. Find and Post Online Documents; Scribd

Scribd: <http://www.scribd.com/>

Read 1e. Vocabulary Practice Feeds the World
 A Grain of Rice: A Bloomington man's computer vocab game feeding the world, Herald Times, Wednesday February 6, 2008
 Mike Leonard

Read 1f. Free Text Chats
 (Bonk, 2007; Mei-Ya Liang, 2007)

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.
4. Advantages:
 1. Involve all learners in real time.
 2. Can type in different fonts, styles, colors, capital letters, graphic images, etc.
 3. Transcript of the discussion can be saved for later discussion.

Read 1g. Online Tutorials, Help, Announcements, Q&A, and FAQs

To register for a MyNCBI account, click on the Register link at the top right of the screen.

Target your results using the improved Limits page!

- Add an author or journal to your search
- Limit to citations with links to free full text
- Select multiple languages, publication types, and

Read 1h. Podcast for Language Learning
 (ChinesePod—learn Mandarin)

Read 1i. Educational Applications of Podcasting (Essex, 2006, Leftwich, 2007)

1. Recordings of lectures (Coursecasting)
2. Supplemental textbook or entire book
3. Student projects
4. Interviews
5. Language lessons
6. Oral reports
7. K-12 classroom interactions
8. Downloadable library of resources
9. Recordings of performances

Read 1j. Referenceware and Terminology Exercises Online (e.g., Websters, Visual Thesaurus)
<http://www.visualthesaurus.com/>
 (\$2.95/month; \$19.95/year)

Read 1k. Wiki Steps on How to do Something: Wikihow
<http://www.wikihow.com/>

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. Reflection on Online Contents: The Carlyle Letters Exploring Victorian World Through Letters and The Diary of Samuel Pepys, John Evelyn

Reflect 2b. Online Portal Explorations (e.g., The Complete Works of Charles Darwin)

Reflect 2c. ORL or Library Day (L = Cost, M = Risk, M/H = Time) (Bonk, 1999)

20. Leadership That Sparks Learning

Readings
 Bonk, D. (1999). Leadership That Sparks Learning. In *Handbook of Research on Leadership in Educational Organizations* (pp. 11-21). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

The author links a 20 years of research that was done by the 200+ national leaders in Education & Training. The model asks two questions: Do you know and practice all the following? If yes, you are a leader. If no, you are not. The author of the article presents a direct correlation between leadership and student achievement. They focused on the following factors: the use of regular, active leadership, and effective use of time and resources to do, not just, what, and why to do it? The author continues to explore the role of data collection. I believe the article would be beneficial for anyone who wishes to be a better leader.

Reflection
 How do you think you can be a better leader? How do you think you can be a better leader? How do you think you can be a better leader?

ORL for Eric Womack
ORL for Fred Uncker

Reflect 2d. Reflection Papers: Individual Reflections or Super Summaries of what learned in the course (3-4 page)

- Learning journeys/Super Summaries:
 - Have students reflect on their learning journeys in a course.
 - Have them reflect and compare the concepts that they have learned to others.
 - Perhaps compare to sample papers from previous semesters.

Reflect 2e. Posting Model Answers

Employment Law and Ethics Project

Question 1

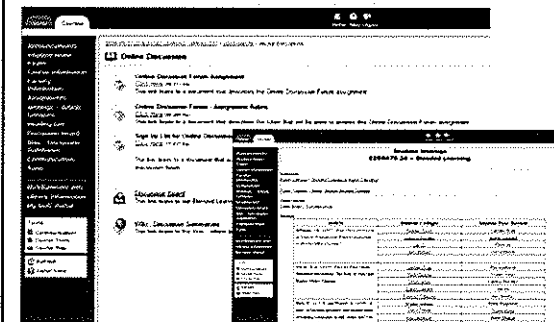
Would it be illegal for Lewis to recommend DeLuca instead of Lewis? Explain, being specific about the legal doctrine that would apply?

Answer 1

Under both Title VII of the 1964 Civil Rights Act and Section 1911 it is illegal to discriminate on the basis of race or color, and Lewis would likely win a lawsuit using the claim of disparate treatment if he were not recommended for the promotion. If Lewis does not recommend DeLuca, this is guilty of violating the law. None of the three primary defenses—necessity, merit, or bona fide occupational qualification—apply to the recommendation. Lewis has higher seniority, equal skills, and more direct experience with power tools, than does the other candidate Frank DeLuca. Title VII "prohibits discrimination based on race, color, religion, sex, and national origin in hiring, firing, job assignments, pay, access to training and apprenticeship programs, and most other employment decisions." AFTCO is a covered entity under Title VII because they are "employing 15 or more employees and engaging in an activity affecting interstate commerce" and as the case footnote point out "in November 21, 1991, the Civil Rights Act of 1991 extended protection from discrimination in employment to U.S. citizens working in foreign countries while employed by U.S. firms."

In this case, Title VII's disparate impact is not applicable since AFTCO's policy clearly states to "promote the most

Reflect 2f. Paired Weblog Critiques



Reflect 2g. Six Hats (Role Play):

(from De Bono, 1985; adopted for online learning by Karen Belfer, 2001, Ed Media)

- **White Hat:** Data, facts, figures, info (neutral)
- **Red Hat:** Feelings, emotions, intuition, rage...
- **Yellow Hat:** Positive, sunshine, optimistic
- **Black Hat:** Logical, negative, judgmenta gloomy
- **Green Hat:** New ideas, creativity, growth
- **Blue Hat:** Controls thinking process & organization



Reflect 2h. Partner & Team Blogs (especially English writing class)

1. **Instructor or Tutor blog:** resources, information, space to chat
2. **Learner blog:** reflections, sharing links and pics, fosters ownership of learning
3. **Partner blog:** work on team projects or activities
4. **Class blog:** international exchanges, projects, PBL
5. **Revision:** review and explode sentences from previous posts, add details
6. **Nutshell:** summarize themes or comments across blogs
7. **Blog on blog:** reflections on feelings, confusions, and experiences with blogs

Blogging Questions

1. Who has a blog?
2. Who regularly reads other people's blogs?
3. Who assigns blogging tasks?
4. Who has created a video blog?
5. Who thinks it is an utter waste of time to blog?


Reflect 2i. Personal Learner Weblog (Bonk, 2007; Mei-Ya Liang, 2007)

1. Create personal learner blogs.
2. Note online learning materials found or read (e.g., online news sites, Web search engines, online dictionaries, etc.)
3. Outline of key points of readings.
4. Write reflections on news stories.
5. Record results of group activities in news sites and text chat rooms.
6. Provide peer comments on blogs.

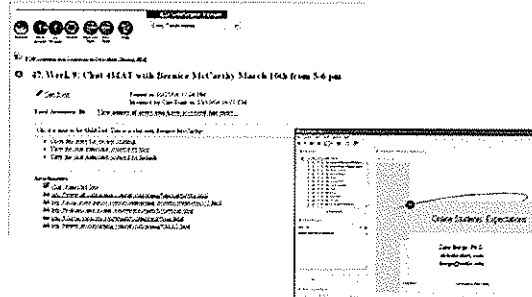
Reflect 2j. Course Weblog

(Bonk, 2007; Mei-Ya Liang, 2007)

1. Create a class blog site (e.g., using Blogger (<http://myliang.blogspot.com/>)) to create a sense of instructor presence and to link people from all over the world.
2. Post assignments and instructional prompts.
3. Group projects and news summaries are posted.
4. Add course related links for online materials, resources, tools, and Websites.
5. Add instructor's profile with bio and contact info.

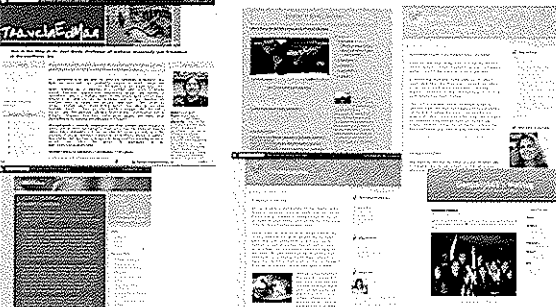


Reflect 2k. Reuse Blog, Chat Transcripts, Presentations



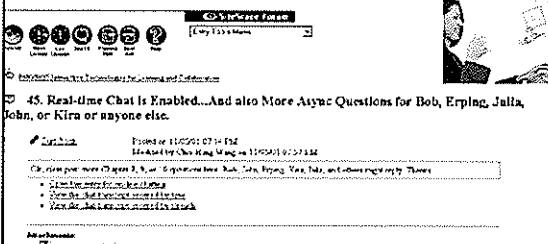
Reflect 2l. Blogs with Critical Friends

(e.g., <http://traveledman.blogspot.com/>)



Reflect 2m. Practitioner Feedback: Asynchronous Threaded Discussion plus Sync Expert Chat

(e.g., Starter-Wrapper + Sync Guest Chat) (L/M = Cost, M = Risk, M = Time)



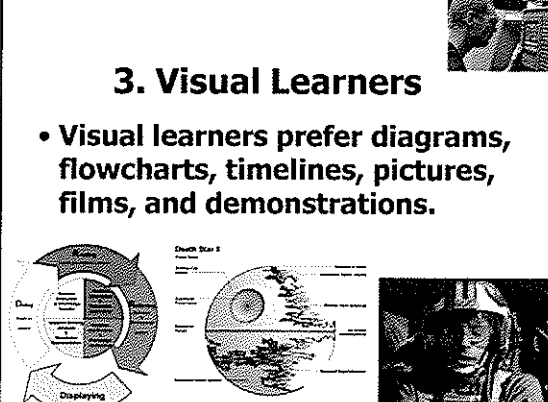
Half-Way...Brief Intermission

Please Share Best Idea so far with neighbor



3. Visual Learners

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



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 <http://www.scivee.tv/>

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

Display 3c. Shared Online Video Demonstrations (e.g., Monkey See, doFlick)

Display 3d: Video Supported Language Learning (e.g., ECPod)

Display 3e. Visual Resources (e.g., Periodic Table of Visualization; Visual Thesaurus)
<http://www.visualthesaurus.com/>; http://www.visual-literacy.org/periodic_table/periodic_table.html

A PERIODIC TABLE OF VISUALIZATION METHODS

Display 3f. Online Anatomy and Physiology

Display 3g. Adventure Blogging (Ben Saunders, Mark Fennell, Andrew Revkin)

The screenshot shows a science blog page with a header 'Science' and a main article titled 'POSTCARDS FROM THE ARCTIC'. The article includes a photograph of a person standing in a snowy, mountainous landscape. The text discusses the challenges of traveling in the Arctic and the importance of understanding the region's environment.

Display 3h. Online Universe What if the World was Beyond our World? NASA's Hubble Space: Google Sky) USA Today, August 22, 2007 <http://earth.google.com/sky/index.html>

The screenshot displays the 'Google Earth gazes into deep space' interface. It features a central view of a starry sky with various celestial objects. The interface includes navigation controls and information panels on the right side, providing details about the objects being viewed.

Display 3i. Animations, Video Clips, Audio, Pictures, Web Resources, etc. (e.g., DNA from the Beginning)

The screenshot shows a web resource titled 'RNA was the first genetic molecule'. It includes a diagram of a molecular structure, likely representing RNA, and text explaining its role in the origin of life. The page also features several small images and links related to the topic.

Display 3j. Online Video (e.g., YouTube, TeacherTube, CurrentTV) CHARLES McGRATH, Published: July 8, 2008, A Private Dance? Four Million Web Fans Say No, The New York Times

The screenshot displays a collage of four video thumbnails. Each thumbnail shows a group of people dancing in a different location: 'Andromeda Islands', 'Austin, Texas', 'Madrid, Spain', and 'Istanbul, Turkey'. The thumbnails are arranged in a 2x2 grid.

The screenshot shows a YouTube page with several video thumbnails. The thumbnails include a man speaking, a cow, and a group of people. The page layout includes the YouTube logo, search bar, and video details.

Display 3k. Anchored Instruction (find anchoring event (YouTube, CNN, BBC, TeacherTube, CurrentTV)

The screenshot displays a YouTube page featuring a video titled 'R.P. Silliman - Underdog'. The video thumbnail shows a man in a suit. The page includes the YouTube interface with search, upload, and channel options.

Display 3l. Electronic Cameras and Maps (e.g., Google Earth/Maps)

Display 3m. Map Mash-ups

(e.g., Shakespeare's Global Globe; PopSci, June 13, 2008, Michael Behar
GOOGLE EARTH ENVIRONMENT GUIDE THE FREE SOFTWARE FROM GOOGLE
GIVES SCIENTISTS A NEW WORLD VIEW)

Display 3n. Online Timelines (US Presidents)

Display 3o. Tracking Live Internet Events (e.g., Thawing: A Colossal of an Idea)

(caught Feb. 2007; thawed April 30, 2008)

Deep-Sea Behemoth
Captain John Benford
colossal squid on boat
in the Ross Sea near
world record 1,089
scientists at New Zealand
further study.

First intact
ing boat
sea creature
n whole
will the

The Kracken! A Sea Serpent! A Gigantic Squid!

(California Coast June 27, 2008)

Display 3p. Vodcast for Medical Training

(e.g., "SonoSite on the small screen: The Bothell-based
company uses podcasts for its ultrasound scanner training,"
By Eric Fetters, Herald Writer, Everett, WA, Sept 25, 2006)

Display 3q. Concept Mapping Tools (VUE, Bubbl.us, Cmap, Freemind)

Display 3r. Expert Mentoring E-Art & E-Design (COFA Online, Omnium Project, Creative Waves—online graphics and photomedia project)

Display 3s. Historical Documents discoverbabylon.org

- In its final form, the multi-player game will let you march through three-dimensional recreations of the first city-states, around 3000 B.C., the first empires, around 2300 B.C., and finally the famous Iron Age empire of Assyria...offers three-dimensional walk-throughs of sites in the Valley of the Kings.

Display 3t. Explore Virtual Worlds and Online Representations (UCLAs CVRLab, Univ of Virginia, June 11, 2007)

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

Display 3v. Math Representation

Display 3w. Online Research Channels (Research Channel, UChannel)

The screenshot shows the UC UChannel website. At the top, it says 'UC UChannel'. Below that, there's a navigation bar with 'RESEARCH CHANNEL' and 'UChannel'. The main content area features a video player with a thumbnail of a person and the text 'ACQUINONE Gels and Expression'. There are various search and navigation options on the page.

Display 3x. Reflection Sheets and Scaffolds online (E-Reading First Ohio) (reflect, share, and compare)

The screenshot shows the E-Reading First Ohio website. It features a video player with a thumbnail of a person and the text 'Reflection Sheets and Scaffolds'. There are various search and navigation options on the page.

Display 3y. OpenCourseWare Video Browser (New Ways to Find Lectures)

The screenshot shows the OpenCourseWare website. It features a video browser interface with a search bar and a list of video lectures. The text 'OpenCourseWare Video Browser (New Ways to Find Lectures)' is prominently displayed at the top.

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

The screenshot shows the Worldmapper website. It features two world maps with data overlays, one titled 'Pancreas Cancer Deaths'. The text 'World Trends and Indices (e.g. Worldmapper)' is prominently displayed at the top.

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.

The block contains four small images illustrating tactile/kinesthetic learning activities. The first image shows a person in a costume. The second image shows a person with a large object. The third image shows a person with a large object. The fourth image shows a person with a large object.

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 textbook collection

The screenshot shows the Wikibooks website. It features a table of contents for 'Web 2.0 and Emerging Learning Technologies'. The text 'Do 4a. Wikibooks: International Collaboration (Web 2.0 and Emerging Learning Technologies (The WELT))' is prominently displayed at the top.

Do 4b. Wiki: Romantic Poetry Project
 (Professor Mike Phillipson, English at Bowdoin College)

Do 4c. Using Online Video (e.g., YouTube)
 to Memorize Sonnets and Poems

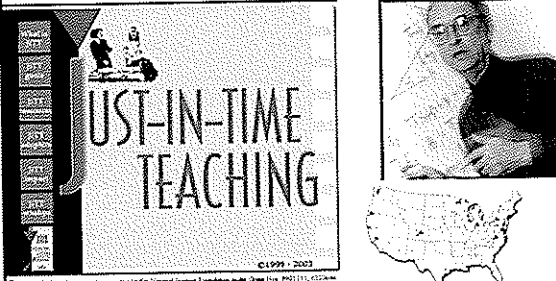
Do 4d. Virtual Worlds/Virtual Reality/MMOG
 Wednesday, August 30, 2006
 Harvard Law School (Charles & Rebecca Nesson)
 Chronicle of Higher Ed (open to the public)
<http://chronicle.com/daily/2006/08/2006083001t.htm>

Do 4e. Virtual Worlds (limited programming skill; e.g., Google Lively)

Do 4f. Survey Research and Market Analysis
 (e.g., WebSurveyor, Zoomerang, SurveyShare, SurveyKey)

Do 4g. Mobile Learning and Social Networking
 (e.g., Mixi, Yayoi Anzal, Professor Japan)


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



The image shows a logo for 'JUST-IN-TIME TEACHING' with the year '©1999-2003'. To the right is a black and white photograph of a man with glasses, and below it is a map of the United States.

Do 4i. Videoconferencing with Hearing Impaired Students Online

- College students tutoring high schools on their homework
- Instructors observing how teacher education students are doing in field placements (practice presentation and communication skills)

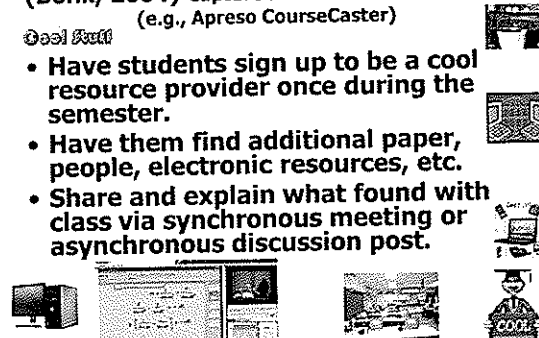


The image contains two screenshots. The left one shows a web interface for a videoconferencing tool. The right one shows a person sitting at a desk with a computer, engaged in a video call.

Do 4j. Cool Resource Provider
 (Bonk, 2004) Capture and Videostream Lectures
 (e.g., Apreso CourseCaster)

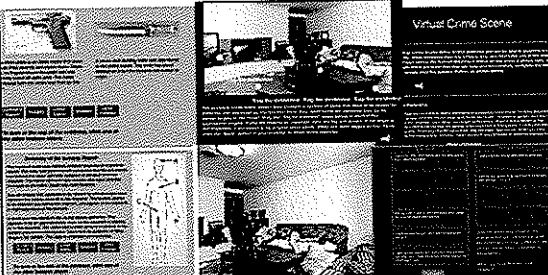
Cool Stuff

- 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 via synchronous meeting or asynchronous discussion post.



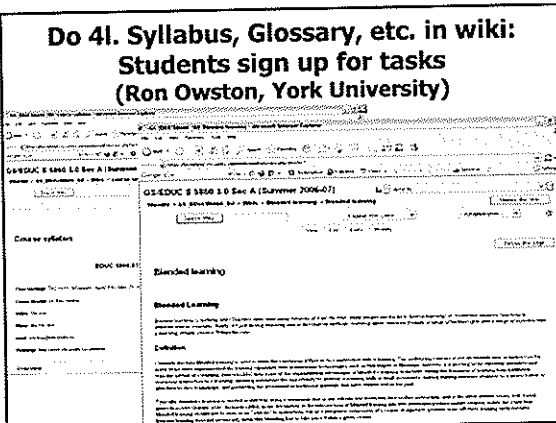
The image shows several small screenshots. One shows a website interface for a course. Another shows a person at a computer. There is also a small cartoon character at the bottom right.

**Do 4k. Virtual Crime Scene:
Explore Murder Evidence**
 (Arjuna Multimedia, Bloomington, IN)



The image shows a virtual crime scene interface. It features several panels with photographs of evidence, such as a handgun, a room with a bed, and a person. There is also text describing the scene and evidence.

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



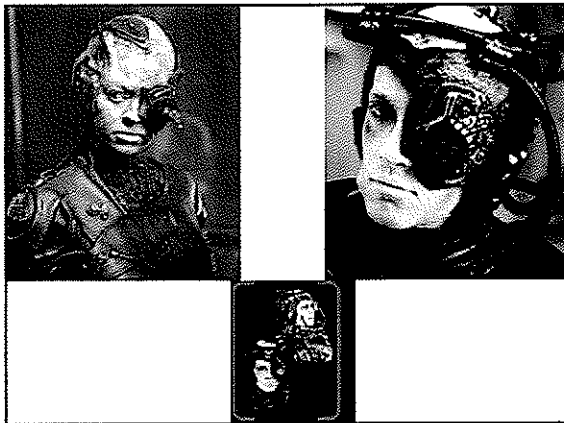
The image is a screenshot of a wiki page. It shows a table with columns for 'Course syllabus', 'Syllabus', and 'Glossary'. The text is somewhat small and blurry, but it appears to be a list of tasks or resources for a course.

Poll #3: How many ideas did you get from this morning?

- 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!

What can we say about Web-based technology???

- It is everywhere!!!!!!!
- Resistance is futile!!!!!!!



3 Stop and Share: Top Three Things Learned so Far! 3

Next up: The MATRIX!!!!!!!!!!!!!!

- Mobile
- Auditory
- Thought-stimulating
- Reflective/Real-World
- vIsually Interactive
- eXtremely Hands-on

It's Over...

Poll: Ok, then, who wants more???

- A. Yes
- B. No
- C. Not sure

It is the End!!!

BONKI

Your skeletal structure is important. Your face is double that of your brain. There, status.