




Part 2 (Micro View).
R2D2 to the Matrix: A Galaxy of Online Learning Style, Motivational, Blended Learning, and Learner-Centered Examples




Dr. Curtis J. Bonk
Professor, Indiana University
President, SurveyShare, Inc.
<http://php.indiana.edu/~cjbbonk>,
cjbbonk@indiana.edu



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




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



Sony's Playstation 2 sold 238 million units this decade


College technology 'catching up' with students
 By Kathleen Gray and Robin Erb, USA TODAY,
 October 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.

College technology 'catching up' with students
 By Kathleen Gray and Robin Erb, USA TODAY,
 October 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.



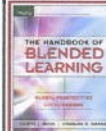
Poll #1: Bonk's Web Addiction Questionnaire (check all that apply)

1. Own 2 or more cell phones with Internet access.
2. Own 2 or more laptop computers with wireless connections.
3. Check email in the morning, noon, and at night.
4. Suffer from nervous tension when you cannot get on email.
5. Are checking email, updating your Facebook account, or text messaging right now.



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

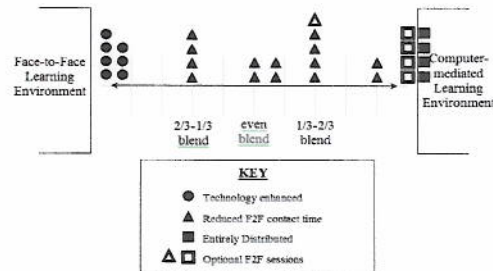


The Sloan Consortium (2003). Sizing the Opportunity: The Quality and Extent of Online Education in the U.S., 2002 and 2003
http://www.sloan-c.org/resources/sizing_opportunity.pdf

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.



Range of Blends in Pew Cases



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

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)



Where is Blended Beneficial?


<http://www.center.rpi.edu/PewGrant/ProjDesc.html>

- 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



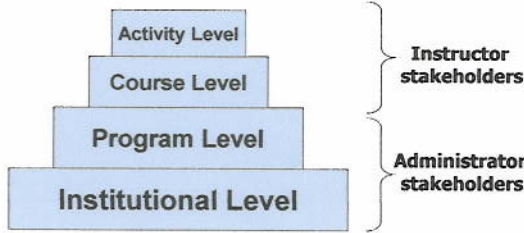
Fully Online and Blended Learning Advantages

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



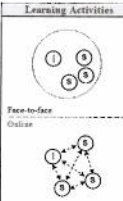
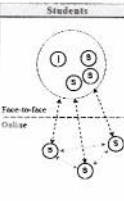
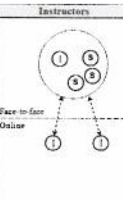




Models of Blending


Blending occurs at the following four levels:




1. Activity- and Course-Level Blends

Blended learning systems: Definitions and directions (Osguthorpe & Graham, 2003)

Learning Activities	Students	Instructors
		
<p>Face-to-face</p> <p>Online</p>	<p>Face-to-face</p> <p>Online</p>	<p>Face-to-face</p> <p>Online</p>
<p>Key</p> <p> Face-to-face classroom</p> <p> Student</p> <p> Instructor</p> <p> Online Interaction</p>		



AMA Special Report, Effectively Implementing a Blended Learning Approach (Steven Shaw & Nicholas Igreri, 2006)



AMA at Work: lifelong learning, lifelong growth


Source: American Management Association, AMA at Work

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)



Blended Solution #1+. Sample Activities for Brief Meetings

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.

Blended Solution #2. Online Professional Development (e.g., STARLINK, www.starlinktraining.org)

Blended Solution #3. Expert Video Reflections and Scaffolds online (E-Reading First Ohio; reflect, share, and compare)

Blended Solution #4. Flash, 3-D Visualization, & Laboratory Software

Blended Solution #5. Online Portals Basic Acoustics of Musical Instruments 2005 MERLOT Classics Award

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.



Poll #2: Which of these is the most important for motivating students? (Pick just one)

1. Supportive, appropriate challenge, meaningful.
2. Teach goal setting and self-reinforcement.
3. Offer rewards for good/improved performance.
4. Novelty, variety, choice.
5. Game-like, fun, fantasy, curiosity, suspense.
6. Divergence, dissonance, peer interaction.
7. Allow to create finished products.
8. Provide immediate feedback.
9. Show intensity, enthusiasm, interest.
10. Make content personal, concrete, familiar.

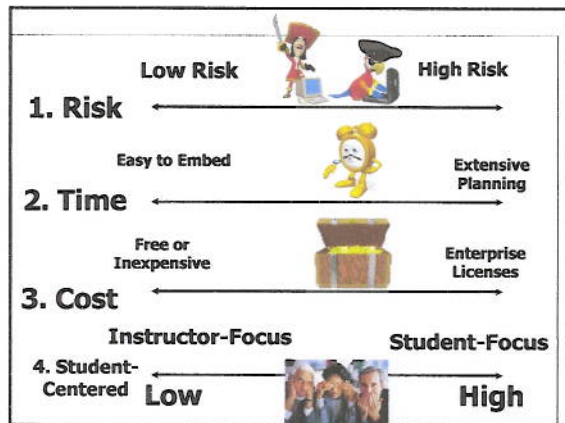


I even reflected on this for a moment...



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?

- close, moderate, feasible, intelligible
- non-plenty, useful person
- excess, withhold, heavy, hard
- make happy, cheer, assure, please
- remotest, least, minimum, lesser

A B C D E

1 / 20

2. Encouragement, Feedback, etc.:

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

2. Encouragement, Feedback, etc.:

C. Instructor Presentation in Synchronous Sessions (Breeze, Elluminate, WebEx, etc.)

3. Curiosity, Fun:
A. Exploration and Demonstration:
Virtual Tours and Timelines (HyperHistory)
<http://simile.mit.edu/timeline/>

3. Curiosity, Fun:
B. Online News
(Giant jellyfish, Tiny T. rex, and Ardi)

4. Variety, Novelty:
A. Cool Resource Provider

- 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.

4. Variety, Novelty:
B. Volunteer Technology Demos

- 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

4. Variety, Novelty:
C. Adding voice to email, docs (Yack Pack, VoiceThread)

4. Variety, Novelty:
D. 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 Homepage Explorations
 (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, Mixxer, Livemocha, Babbel, KanTalk)

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

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



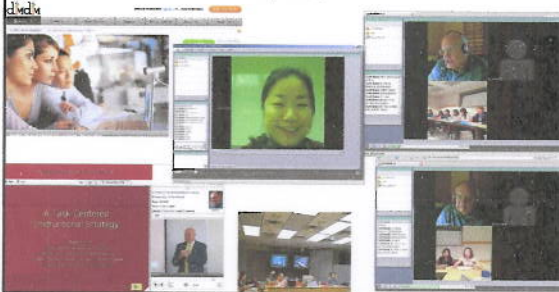
Google docs
Create and share your work online

- Upload files and view in your browser
- Collaborate with multiple users
- Files are not deleted, you can restore
- Share changes in real time
- Print and export documents online
- It's free!
- Learn more: [View features](#)

Diigo is a powerful research tool and a knowledge-sharing community

Google docs
Create documents, spreadsheets and presentations online

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




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

Students to protest human body exhibit

Maggie Ybarrn

Issue date: 3/5/08 Section: News

Page 1 of 1



Plasticized human corpses will be on display inside Colorado Center through May.

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

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



Educational Uses of Digital Storytelling

Flip Mino
MSRP \$179.99

YouTube

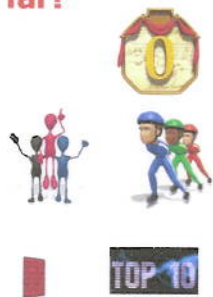
Digital Film Festival - Behind the Scenes

Sleek and Fun

CAMPUS MOVIEFEST


Poll #3: 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 Learning Styles

The R2D2 Model

Curtis J. Bank | Ke Zhang

Empowering Online Learning

100+ Activities for Reading, Reflecting, Displaying & Doing

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)

The International Review of Research in Open and Distance Learning



A refereed e-journal to advance research, theory and best practice in open and distance learning worldwide.

Attila University

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. 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. Blogs Uses

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

Reflect 2b. Critical Friend Blog Postings



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



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

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

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. Follow Online Adventure
 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, Glify, Mindmeister, or Mindomo)

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

WORLDMAPPER The world as you never see it. Search for a map.

Home | Map Categories | Thematic Index | A-Z Map Index | About WorldMapper | Help

Science Growth Map No. 206

The map shows the growth in scientific research of countries between 2000 and 2005. It measures the increase in scientific publications that countries have on average in the world.

In 2005, 82 scientific papers were published per million people living in the world, the increase is 35% per million by 2005. The increase was experienced primarily in countries with strong scientific research. However, the United States, with the highest total publications in 2005, experienced a smaller increase since 2000 than China, India, China, Germany and the Republic of Korea. Singapore had the greatest per person increase in scientific publications.

Country size shows the proportion of the number of native scientific papers that were published in 2005 compared with 2000, where authors work there.

- Open PDF viewer, designed for printing. You need Acrobat Reader.
- Take selected territory into or out of map for comparison.
- Data files: Excel (Data with maps), Excel (Data no maps), OpenOffice (Data no maps)
- Download maps for free data.
- All of the data are open and available on our data page.

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)

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

The image shows a central periodic table of elements. Surrounding it are several video thumbnails, some showing people in lab coats and others showing close-ups of elements or experiments. The text 'THE PERIODIC TABLE OF VIDEOS' is visible on the left side of the collage.

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

The image displays two website interfaces. On the left is the 'Civil Rights Digital Library' with a 'Welcome to the Civil Rights Digital Library' message. On the right is the 'AMISTAD' website, featuring a portrait of a man and text about the Amistad case.

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

The image contains several educational slides. One slide is titled 'Human Embryology - Introduction' and features a 3D illustration of a developing embryo. Other slides show anatomical diagrams and text describing embryonic development stages.

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

The image is a screenshot of the Google 3D Warehouse website. It shows a 3D model of a bridge with the title 'Roosevelt Island Bridge & Motorgate Parking'. The interface includes search bars, navigation buttons, and a 'Download Model' button.

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 diagram is a circular flow with four quadrants: 'Doing' (top), 'Thinking' (right), 'Feeling' (bottom), and 'Acting' (left). Each quadrant contains text describing learning activities. Surrounding the diagram are several small images showing students in various learning environments, including role-playing and using manipulatives.

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 collection. Table of Contents

The image shows a Wikibooks page with a table of contents. The main heading is 'Web 2.0 and Emerging Learning Technologies'. The table of contents lists several parts, including 'Part I: Foundations', 'Part II: Learners', 'Part III: Web 2.0 and Emerging Learning Technologies/Digital Divide', and 'Part IV: Overcoming the Digital Divide (e.g., Cr...'. There are also icons for 'Web 2.0' and 'Emerging Learning Technologies'.

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

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

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

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

Poll #4: 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!

Try the R2D2 Method!!!
Try TEC-VARIETY!!!

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