

## Blended Learning A to Z: Myths, Models, and Moments of Magic

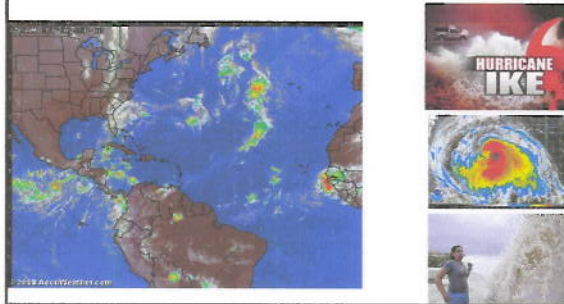
Curt Bonk, Professor, Indiana University  
President, CourseShare, Inc.  
cjbok@indiana.edu  
<http://mypage.iu.edu/~cjbok>



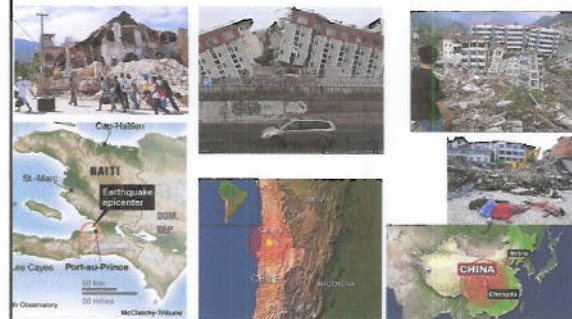
## Who is demanding fully online and blended learning?



## Those in hurricanes!



## Those in earthquakes!

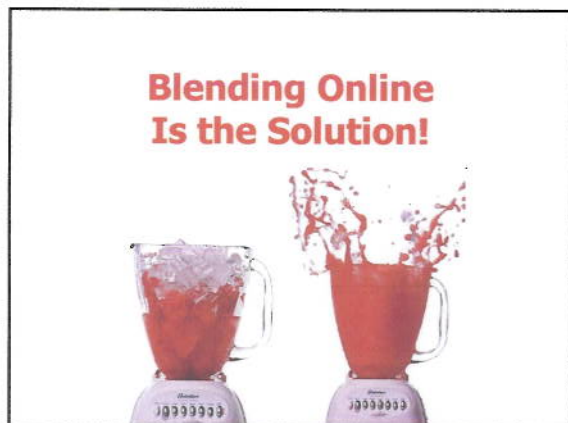
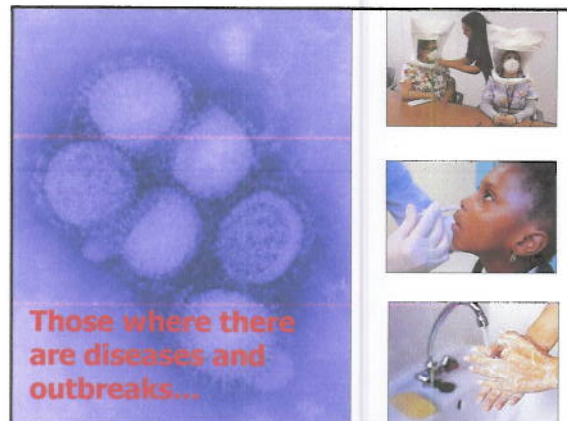
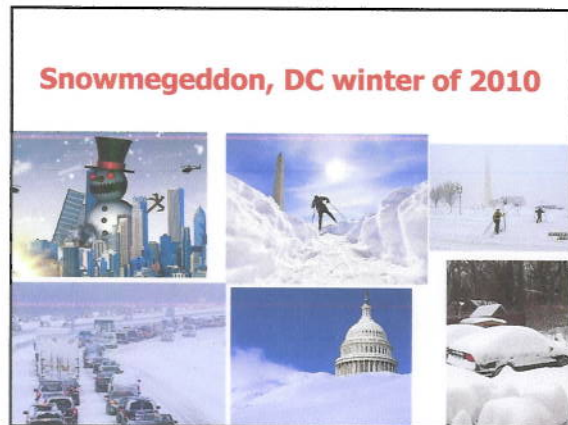


## Those affect by volcanos...



## Those in blizzards and ice storms...





**What I will discuss...**

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

**Handbook of Blended Learning (HOBLe)**

- University of Phoenix, Capella University, JIU, National University
- Microsoft, IBM, Sun, Cisco, Macromedia, Oracle, WebCT
- The World Bank, the DOD in USA
- In Canada: York University and the University of Calgary
- Other universities in Japan, Korea, Malaysia, Singapore, China, NZ, South Africa, Israel, Mexico, Australia, Wales, England, USA

**Blended Learning: Two Parts**

1. Models and Frameworks
2. Problems and Solutions (i.e., examples)

**(When do blends make sense?)**

## Blended Learning Defined and Explained

**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**

**KEY**

- Technology enhanced
- ▲ Reduced P2F contact time
- Entirely Distributed
- ▾ Optional P2F sessions

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)

|           |  |                           |                              |
|-----------|--|---------------------------|------------------------------|
|           | Traditional F2F                        | Mixed Reality             | Computer-mediated            |
| Space     | Live (physical F2F)                    |                           | Virtual (distributed)        |
| Time      | Live Synchronous (very short lag time) |                           | Asynchronous (long lag time) |
| Fidelity  | High (rich all senses)                 | Medium (e.g., audio only) | Low (text only)              |
| Humanness | High Human<br>No Machine               |                           | No Human<br>High Machine     |

**(Graham, 2006)**

### Historical Emergence of Fully Online and Blended (Graham, 2006)

**Traditional face-to-face Learning Environment**

**Distributed (computer-mediated) Learning Environment**

**Blended Learning System**

Factors (increasing sophistication of blended systems):

- Eng (Complex systems)
- Present (Increasing sophistication of blended systems)
- Future (Complexity of blended systems)

Caution due to technological innovation

**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



**Examples of Blended Learning, Margaret Driscoll, e-Learning, March 2002**

- Put assessments/reviews online
- Follow-up in community of practice
- Put reference materials on Web
- Deliver pre-work online
- Provide office hours online
- Use mentoring/coaching tool
- Access experts live online
- Use e-mail and instant messaging



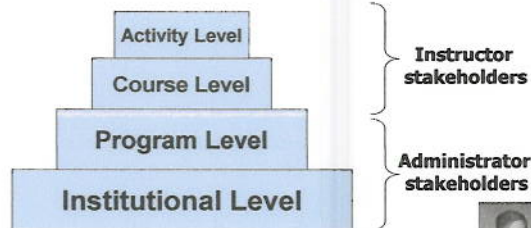
**Myth #7: People learn more in face-to-face settings than blended or fully online ones.**  
**Fully Online and Blended Learning Advantages**

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. Intverts participate more

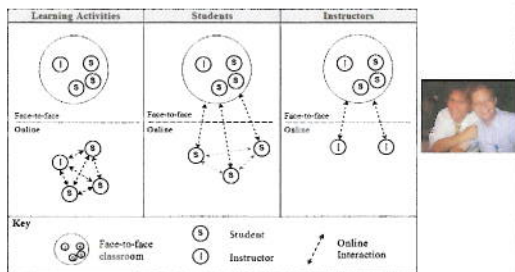


**Myth #8: Faculty can have a logical discussion with administrators about blended learning.**  
**Models of Blending**

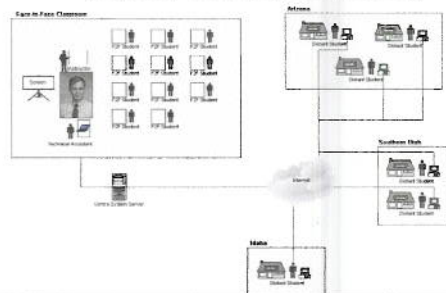
Blending occurs at the following four levels:

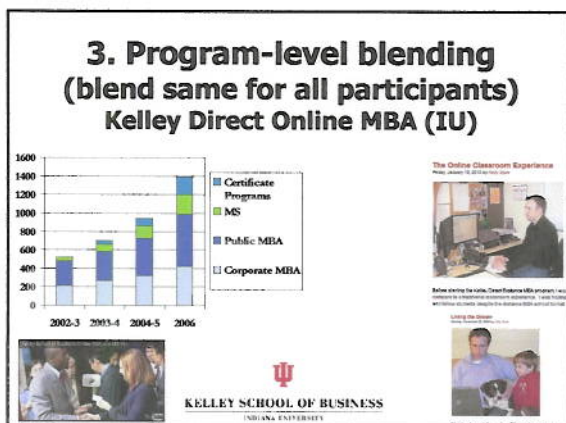


**1. Activity- and Course-Level Blends**  
 Blended learning systems: Definitions and directions  
 (Osguthorpe & Graham, 2003)



**2. Course-Level Blend: Using CMS to blend distance and F2F learners**  
 (Rogers, Graham, et al., 2003)





### Categories of Blends

|                               |   |
|-------------------------------|---|
| <b>A. Enabling Blends</b>     | Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.         |
| <b>B. Enhancing Blends</b>    | Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.                 |
| <b>C. Transforming Blends</b> | Transforming blends are blends that allow for a radical transformation of the pedagogy and learner construction of knowledge. |

### Myth #9: There is a best model of blended.

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

AMA at Work: lifelong learning. lifelong growth

Source: American Management Association, AMA at Work

### 4. The Open U Malaysia

(from Abtar Kaur)

- Started August 2001 : approx. 800 students
- Total students (2005): approx. 33,000
- Total students (2010): over 85,000
- Total full-time academic staff : 60
- Total part-time academic staff (tutors): approx 3,000
- 33 Learning Centres (7 Regional Centres)
- Pedagogical approach: Blended Learning

| Year      | Students |
|-----------|----------|
| Year 2001 | 753      |
| Year 2002 | 7822     |
| Year 2003 | 18999    |
| Year 2004 | 25666    |
| Year 2005 | 33096    |
| Year 2006 | 53248    |
| Year 2007 | 64489    |
| Year 2008 | 75425    |
| Year 2009 | 85406    |
| Year 2010 | 91225    |

### 4. Institutional-level Blending

(Brian Linqvist, 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)

### Myth #9: Blended learning in higher education is vastly different from the corporate world.

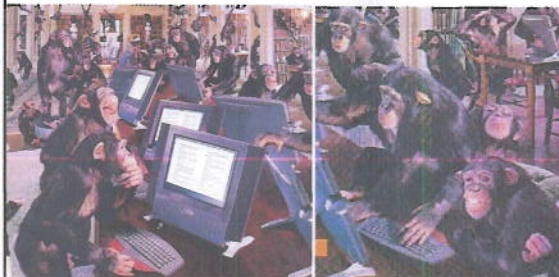
The IBM Four Tier Learning Model.  
Blending Learning for Business Impact – IBM's case for learning success. Nancy Lewis, VP, & Peter Orton, IBM

- Performance Support & Best Practice Reference**  
QuickView, WebCards, Web Books, Best Practice Repositories, Web Pages & Clips
- Interactive Learning - Simulation**  
Case/Cases, Simulations, Scenario based problem solving
- Collaborative Learning**  
Use Virtual & Asynchronous programs, e-Labs, Communities of Interest, Practice and Purpose
- Learning Labs**  
Learning Labs, Classrooms, Meeting, Role Playing, Coaching

**Myth #10: If you read the enough research you will be able to know the impact of blended learning.**

1. **Improved Pedagogy**
  - Interactive vs. Transmissive environments
  - Authenticity integration into work
2. **Increased Access/Flexibility**
  - Reduced seat time courses – UCF M courses
3. **Increased Cost Effectiveness**
  - Corporate: ROI – IBM 47:1, Avaya, Microsoft
  - Higher Ed: PEW Grants

## Part II: 13 Fully Online and Blended Learning Problems and 35 Solutions



### Problem Situation #1: Brief FTF Experiences

- Face-to-face (FTF) experiences are brief, one-week journeys. Need to need to build self-confidence, create social supports, teams, camaraderie, etc.

### Ok, Million Dollar Question: What can you do in 1 week?



### 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.

### Problem Situation #2: Student Absenteeism

- Students miss class to attend a conference or event or a personal problem arises. Or students asks to watch the class a second time.



### Blended Solution #2. Post Courses in YouTube and iTunes (e.g., Berkeley)

This slide shows two examples of blended learning solutions. On the left, a screenshot of the Berkeley website displays a course page with a video player and a list of course materials. On the right, a screenshot of a YouTube channel shows a video player and a list of course-related videos. Below these, there are two smaller images: a person in a blue shirt pointing at a screen, and a person in a suit speaking at a podium.

### Problem Situation #3: Facilities and Time

- Limited facilities or rooms for teaching. Or students cannot make it to class every week or are working full time.

This slide illustrates a problem situation. It features a screenshot of a video player showing a person in a white shirt. To the right is a cartoon alarm clock with a sad face. The slide is titled "Problem Situation #3: Facilities and Time" and lists a bullet point: "Limited facilities or rooms for teaching. Or students cannot make it to class every week or are working full time."

### Blended Solution #3. Webcast Lectures and Videostream for Remote Students (Tegrity, Echo360, Mediasite, etc.)

This slide shows two examples of blended learning solutions for remote students. On the left, a screenshot of the Tegrity interface displays a "Magnetic Disk" lecture with a diagram and a video player. On the right, a screenshot of the Sonicfoundry interface shows a "Robert Baird" lecture with a video player and a list of course materials. Below these, there are two smaller images: a person in a red shirt and a person in a blue shirt.

### Blended Solution #4. Alternating F2F 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)

This slide illustrates a blended learning solution. It features a diagram of a blended schedule with alternating face-to-face (F2F) and online classes. The diagram shows a timeline with "F2F" and "Online" blocks. To the right, there are two screenshots: one of an English class at BYU and one of a multimedia class at Beijing Normal University (BNU). Below the diagram, there are two smaller images: a person in a red shirt and a person in a blue shirt.

### Problem Situation #4: Web Supplemental Activities

- Fail to finish class discussion or other activity in time. Or desire to integrate the Web more in your face-to-face instruction or outside of class. Want to provide course resources and activities for students to explore.

This slide illustrates a problem situation. It features three images: a person in a blue shirt, a magnifying glass over a laptop, and a laptop. The slide is titled "Problem Situation #4: Web Supplemental Activities" and lists a bullet point: "Fail to finish class discussion or other activity in time. Or desire to integrate the Web more in your face-to-face instruction or outside of class. Want to provide course resources and activities for students to explore."

### Blended Solution #5. Online Self-Testing (e.g., self study in accounting, vocabulary, anatomy, chemistry, dissection, etc.)

This slide shows two examples of blended learning solutions for online self-testing. On the left, a screenshot of the CALM (Computer Assisted Learning Modules) interface displays a "Learn for College and University using CALM" module with a video player and a list of course materials. On the right, a screenshot of the "Upper Extremity Muscles" interface displays a diagram of a hand and a list of course materials. Below these, there are two smaller images: a person in a blue shirt and a person in a red shirt.

### Blended Solution #6. Online Portal Explorations

The image shows two overlapping screenshots of news websites. The left one is from msnbc.com with a 'Newsweek' header and an article titled 'Alive and Online'. The right one is from Newsweek with an article titled 'Amnesty photofiles'.

### Blended Solution #7. Live Expeditions

(Oceanographer touts deep sea web surfing; Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms as discoveries made, eSchool News, June 2010, Deep-sea images reveal colorful life on ocean's floor, Sept. 2010))

The image shows a screenshot of the Nautilus Live website. It features a large video player showing a live feed of an expedition, with a smaller inset showing a scientist speaking. The website has a dark blue theme with various navigation options.

### Blended Solution #8. Open Source Photography

(e.g., Flickr, Everystockphoto.com; courses on Winter Olympics, photography, motivation, geography, culture, meteorology, physics, etc)

The image shows a screenshot of the Flickr website. It displays a grid of various photographs, including landscapes, nature, and abstract images. The text 'Open Source Photography (OSP)' is visible at the top of the page.

### Blended Solution #9. Open Ed Resources & OpenCourseWare

(e.g., MIT OpenCourseWare)

The image shows two screenshots. The top one is from MIT OpenCourseWare, displaying a list of courses by department. The bottom one is a YouTube video player showing a lecture by Professor John H. Conway from MIT, titled 'LAC 3 | MIT 18.06 Linear Algebra, Spring 2005'.

### Problem Situation #5: Student Learning Control

- Want to give students more control and ownership over their own learning. Want to foster student generative learning or being authors of their own knowledge.

The image shows an illustration of three students sitting at a table. One student is pointing at something on the table, while the other two are looking on. There are some objects on the table, possibly representing learning materials.

### Blended Solution #10. Wikibook or Wikipedia Editing or Critiques

- Ask students to critique a wikibook or page from Wikipedia

The image shows a screenshot of a Wikibook page. The title is 'Critique of Information Processing Written by Drew'. The page contains text and a small image of a dog's head.



### Problem Situation #6: Preparedness for the Profession

- Students are not prepared for their professions when they graduate. Or want to better apprentice students into their chosen profession. What to provide opportunities to work with practitioners, experts, mentors, and coaches in authentic learning environment.



THE REAL WORLD

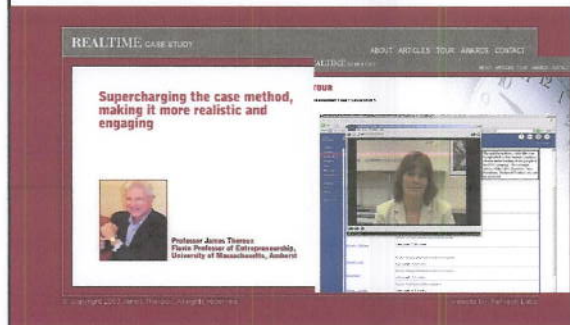
### Blended Solution #11. Online Professional Development (e.g., STARLINK, [www.starlinktraining.org](http://www.starlinktraining.org))



### Blended Solution #12. Bridges to World of Expert and Practitioners (e.g., Watch or Listen to Online Conferences, Expert blogs, chats, interviews)



### Blended Solution #13. Real World Problems (PBL online): Real-time Cases



### Problem Situation #7: Collaborative Skill Deficit

- Students need collaboration and teamwork skills. Want to build virtual teaming skills in class activities or work with learners in other locales or situations.



### Blended Solution #14. Working In Virtual Teams (e.g., Collanos, Groove, SharePoint, Google Docs)



### Blended Solution #15. Mock Tour Packages (e.g., Univ of Illinois and Korea Tourism classes)

**Student: getting hands-on experience designing unique tours**

**Media's Michael Arts Editor**

Photo by Bill Wagnard  
 Bruce Wicks, who directs the US Office of Recreation and Tourism Development, is developing courses that provide students hands-on experience needed in the 21st century.

### Blended Solution #16. Online Role Play (Tulane University, Exercise for Renewable Energy, Freeman Sch. of Business, roles include power traders, electric utility analyst, independent power producers & utility dispatchers)

### Blended Solution #17. Global Game Jams, Electronic Computer War Games, etc.

**Global Game Jam**

### Problem Situation #8: Student Reflections and Connections

- Students are not connecting content. They are just turning pages and going through the motions. Minimal student reflection is seen.

### Blended Solution #18. Expert Video Reflections and Scaffolds online (E-Reading First Ohio; reflect, share, and compare)

**showcases**

Department: *Psychiatry*  
 Academics: Prof. Michael Gill, Dr. Brian Fitzmaurice, Katie Armstrong

*Psychiatric Interviews*  
 The Truth View

### Problem Situation #9: Learning Community

- There is a preference for creating an online learning community in order to increase student learning and retention in the program. Such a community might be in a single class or across a series of classes.

### Blended Solution #19. Create an Online Community (e.g., in Ning, Google Groups, or Yahoo Groups)

The image shows several screenshots of online community platforms. On the left, there's a screenshot of a Ning group titled 'Business, Economics and Accounting Clubs (BEAC)'. In the center, there's a screenshot of a Google Group titled 'Purdue Android Programming'. On the right, there's a screenshot of a Ning group titled 'Ning in Education'. Below these screenshots are icons for Ning, a globe, and a network diagram.

### Blended Solution #20. Cross-Institutional Wikibook Project (e.g., IU and the University of Houston)

The image is a collage. On the left, there are photos of students in a classroom setting, some looking at a large screen. On the right, there are logos for Wikibooks and various educational materials, including a book titled 'Introduction to HELLO' and another titled 'NOVA! NOVA! NOVA! Dr. Lee'.

### Problem Situation #10: Need to Visualize Content

- Content is highly visual in nature and difficult to simply discuss in class. Or students have a preference for visual learning.

The image shows three 3D architectural renderings of classical buildings. The first is a large, ornate building with many columns. The second is a smaller, simpler building with a portico. The third is a floor plan or architectural drawing of a building.

### Blended Solution #21. Simulations and Virtual Worlds Online (e.g., OpenSimulator [http://opensimulator.org/wiki/Main\\_Page](http://opensimulator.org/wiki/Main_Page))

The image shows screenshots of the OpenSimulator interface and virtual world environments. On the left, there's a screenshot of the OpenSimulator website. On the right, there are two photos of virtual worlds: one showing a person in a virtual environment, and another showing a virtual world with colorful balloons and a person.

### Blended Solution #22: Shared Online Video Demonstrations (e.g., Monkey See)

The image shows two screenshots of the Monkey See website. The left screenshot shows a video demonstration of a person in a white lab coat. The right screenshot shows a video demonstration of a person in a white lab coat holding a bowl of food.

### Blended Solution #23. Virtual Tours and Timelines (i.e., HyperHistory; <http://simile.mit.edu/timeline/>)

#### Virtual Tour of Oxford

The image shows a screenshot of a virtual tour of Oxford. The main heading is 'Virtual Tour of Oxford'. Below the heading, there's a list of featured places: 'A Virtual Walk up St Giles', 'Opposite Merton's Chapel', 'Virtual Walk around the Village', 'St John's Church', 'The Virtual Magdalen Walk: from Magdalen Street to Magdalen Bridge', 'The Virtual Walk around the University Park', and 'The Virtual Pub Crawl: take a virtual look at 40 of Oxford's pubs'. There's also a small image of a virtual walkway.

**Blended Solution #24. Foldit** (puzzles that explain the shape that proteins fold into; the results can have huge impacts on scientific discoveries needed for Alzheimer's, AIDS, Cancer, etc.) <http://fold.it/portal/>  
<http://www.youtube.com/watch?v=5Z1XuOpmuE&feature=for> (Visual excerpt from interview below: 1:23 minutes)  
<http://www.youtube.com/watch?v=5Z1XuOpmuE&feature=for> (Stanford Project interview: 5 minutes)

**Problem Situation #11:  
Need for Hands-On Learning**

- To learn the material requires that students try it out in a lab or real-world situation. Or students prefer hands-on learning activities.

**Blended Solution #25. Online Accounting Lessons**  
 (e.g., Lyryx; <https://lifa.lyryx.co>)

**Blended Solution #26. Explore Virtual Worlds and Online Representations**  
 (UCLAs CVRLab, University of Virginia)

**Blended Solution #27. Educational Simulations**

**Blended Solution #28. Online Psychology Experiments**

**Blended Solution #29. Videos for clinical education (Sungkyunkwan University School of Medicine, www.mededu.or.kr)**

환자의 앞쪽에서, 왼손으로 환자의 오른쪽 갈상샘을 반대편으로 밀고.

**Blended Solution #30. Virtual Microscopes (Sungkyunkwan University School of Medicine, www.mededu.or.kr)**

Stomach endoscopic examination and biopsy  
Poorly differentiated tubular adenocarcinoma

Final conclusion  
Advanced gastric carcinoma with multiple long metastatic lymphatic growth

**Blended Solution #31. Virtual Quizzes (www.mededu.or.kr)**

**Problem Situation #12: Preference for Auditory Learning**

- The content is heavily verbal or words. Or students have a preference to listen to a lecture or hear an instructor deliver a lecture.

**Blended Solution #32. Podcasting Medical Lectures (School of Dentistry, University of Michigan)**

**Blended Solution #33. Online Language Learning and Conversations (e.g., PalTalk, iTalki, Palabea, Babbel)**

### Blended Solution #34. Basic Acoustics of Musical Instruments (University of New South Wales)

### Problem Situation #13: Lack of Instructor Presence

- Students need to see or hear from the instructor. They need a sense that the instructor is supporting their learning. They prefer face-to-face but are willing to try online.

### Blended Solution #35. Archive Synchronous Session

### Trends, 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.

### Again, this talk covered...

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

### Questions and Comments

Note: Bonk papers and talks at:  
<http://www.publicationshare.com/>  
<http://www.trainingshare.com/>