

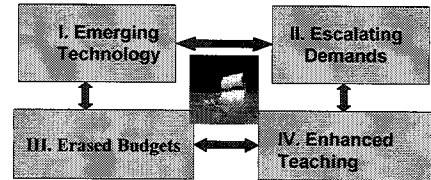
Technology

Emerging Educational and Challenges of Instructional Design



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

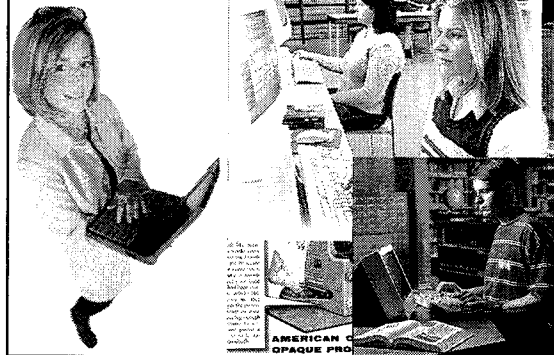
Four Storms are Approaching



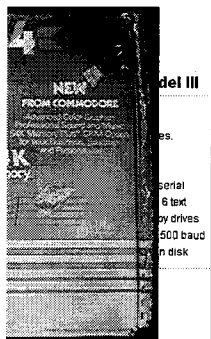
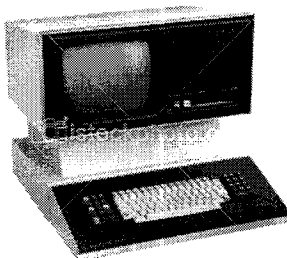
Some are scared of the storm!!!



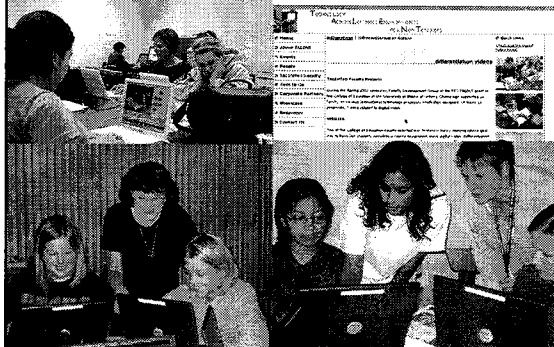
I'm a librarian



Technology in 1980



Preservice Teachers in Talent PT3 Project



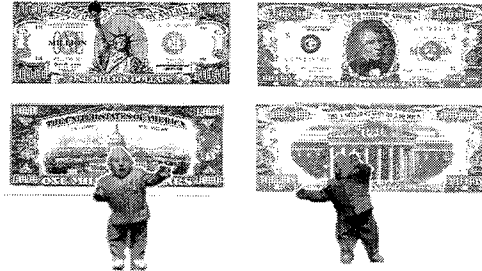
Teacher Professional Development in Technology Integration (the TICKIT Program)

(Bonk, Ehman, & Yamagata-Lynch, in press, AACE Journal)
<http://www.iub.edu/~tickit>



TICKIT: Teacher Institute for Curriculum Knowledge about Integration of Technology

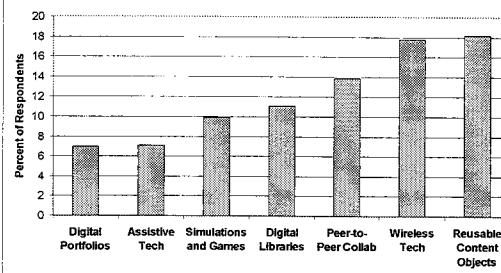
Ok, Million Dollar Question: Which technology will impact schools the most?



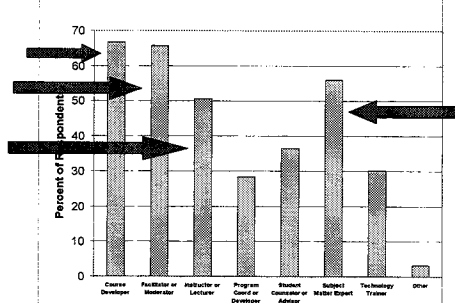
Storm 1. Emerging Learning Technologies

1. Assistive Technologies & Talking Computers
2. Blogs and Online Diaries
3. Digital Portfolios
4. Electronic Books
5. Online Communities and Learning Portals
6. Intelligent Agents
7. Online Exams and Homework
8. Online Games and Simulations (Massive Multiplayer Gaming)
9. Online Translation Tools & Language Lrng
10. Course Management Systems
11. Peer-to-Peer Collaboration
12. Reusable Content Objects
13. Videostreaming, IP Videoconferencing
14. Virtual Worlds/Reality
15. Wearable Computing
16. Wireless Tech: Tablet PCs, Handheld Devices

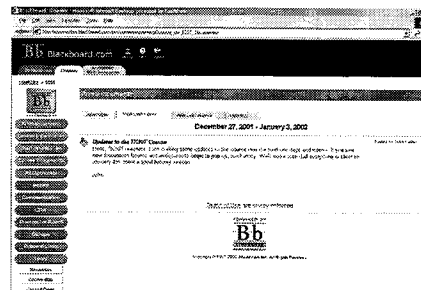
Technologies Expected to Most Impact the Delivery of Online Learning During the Next Five Years



Skills Needed to Teach Online in 2010



Trend #1. Course Management Systems



Trend #2: Wireless Technology



MOST (UN)WIRED SCHOOLS?
CNET and U.S. News and World Report got the top 50 universities' tech sites and asked them which computers they recommended to students and faculty.
[CLICK HERE TO VIEW](#)



Creating the Post-Work Enterprise

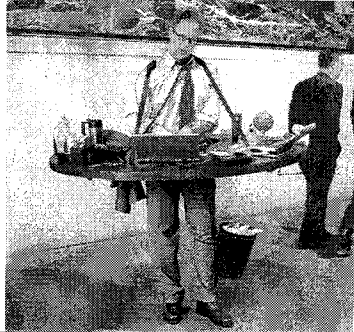


Handheld Computing





Trend #3: Mobile Technology



Headlines

- Seoul to Pyongyang
- KOSPI Climb
- High
- Lawmaker
- Government
- 25% of IP
- Copyrights

Preparing for personal bus or



line lectures via business

device, which listen to MP3 me, view still

Trend #4: Reusable Content Objects

- "Learning Objects are small or large resources that can be used to provide a learning experience. These assets can be lessons, video clips, images, or even people. The Learning Objects can represent tiny "chunks" of knowledge, or they can be whole courses."

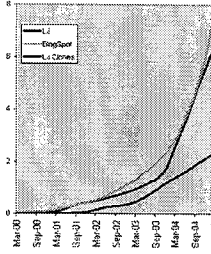
Claude Ostyn, Click2Learn

Trend #5: Blogging

Quarter	Blog Population
Q1 2000	29,500
Q2 2000	66,100
Q3 2000	115,000
Q4 2000	197,000
Q1 2001	352,000
Q2 2001	628,000
Q3 2001	951,000
Q4 2001	1,290,000
Q1 2002	1,570,000
Q2 2002	2,140,000
Q3 2002	2,570,000
Q4 2002	3,070,000
Q1 2003	3,730,000
Q2 2003	4,680,000
Q3 2003	5,780,000
Q4 2003	7,200,000
Q1 2004	9,520,000
Q2 2004	12,600,000
Q3 2004	16,200,000
Q4 2004	21,600,000
Q1 2005	31,600,000
Q2 2005	37,600,000
Q3 2005	45,200,000
Q4 2005	55,400,000


Hosted Blog Growth



Growth Rate

606%
126%
131%
105%


Trend #6: Electronic Books



MetaText

MetaText™ Book Features:

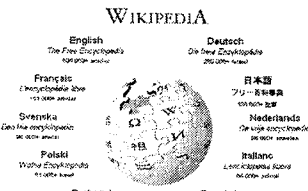
- To guarantee that the content is always available...
- MetaText™ offers a number of features...
- Content is available through...
- MetaText™ offers a number of features...
- MetaText™ offers a number of features...





Trend #7: Wikis (Wikipedia; Jimmy Wales, Founder)

WIKIPEDIA

The Free Encyclopedia



Trend #8: Podcasting and Coursecasting (Adam Curry; www.dailysourcecode.com)

Trend #9: Virtual Worlds/Virtual Reality/MMOG

Games
The life and times of an online gamer

By Hankiss Iwano
The Associated Press
Updated 11:25 p.m. ET Dec. 15, 2004

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Virtual gaming
Online games are one of the many ways the Web has changed the way young people socialize and entertain themselves.

Trend #10: Synchronous Conferencing

#11. Computer Grading (New York Times, May 19, 2004, Latent Semantic

A World Leader in Automated Essay Assessment and Text Analysis

April 2004: A paper by K.A.T. researchers presented to the April 6, 2004 issue of the Proceedings of the National Academy of Sciences (PNAS).

For details go to the National Science Foundation press release: [http://www.nsf.gov/newsroom/2004/04/04040101.html](#)

Knowledge Analysis Technologies' industry-leading automated essay assessment applications provide instant content-based feedback on student essays. Students don't have the opportunity to review their essays, improving their knowledge and performance. Knowledge Analysis Technologies also offers a number of other text analysis tools. Our technology, expertise, and professional staff combine to create differentiated solutions that drive results for our business partners. [Visit us on the web.](#)

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Trend #12: Collaborative Tools

Trend #13: Internet Phone Service (e.g., Skype)

#14. Free Online Journals and Resources (e.g., Public Library of Science)



Stanford Encyclopedia of Philosophy

The Encyclopedia Now Needs Your Support
Please Read How You Can Help Keep the Encyclopedia Free

Back by Edward N. Zalta

Table of Contents

Home Site: IEP.A

Stanford University

Meta Site: Axioma

University of Sydney Library, Columbia Electronic Text and Image Service

Metacrawler, The Metacrawler

University of Aden, Institute for Logic, Language and Computation

Meta and Cross Services

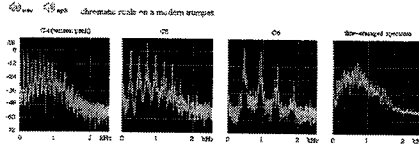
University of Leeds, British Philosophy and Religion Studies



Basic Acoustics of Musical Instruments

Spectra of brass instruments.

When the player and instrument are playing a particular note, the air is vibrating at one particular frequency. But, especially if the vibration is large, as it is when playing loudly, it generates harmonics as the sound (see [What is a sound spectrum?](#)). These harmonics in the lip vibration set up, and are usually in turn reinforced by, standing waves, set up in instruments designed to produce standing waves with harmonic frequency ratios. Let's listen to a clarinet tone played on a modern tin trumpet, and look at the spectra.



The three individual spectra are for the lowest note played (written C4 in sounding Bb), and the notes one and two octaves higher. The fourth spectrum is the average over time for the whole note. Why do the spectra have their characteristic shape?

In all wind instruments, the higher frequency harmonics are relatively inefficient because they lose energy in several places—a jet of air strikes with the walls, so the energy is partly the shape of high frequency harmonics, for brass instruments, the radiated power sustains a resonance with frequency over the low part of the range, as here. This means that the tone is partly a jet maximum radiance at a moderately high frequency especially around several hundred Hz, although it has a different value at each lip reed instrument, and very power at lower and higher. Further, the enclosed air in the mouthpiece and the construction because it also tends to drive the lip most efficiently near this frequency, further contributing to the peak.

Trend #15. Open CourseWare



OOPS! Opensource Opencourseware Prototype System
The Foundation of Fantasy Culture and Arts

- 00412005
- Faculty
- Jan Huddy
- Paul Berra
- James Durbach
- John Mc
- su Koppelman
- ira O. Foutsakis
- in Bays
- id Koppelman
- Alvin Thorpe
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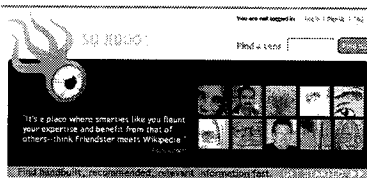
Trends # 16. Social Networking Web 2.0 (the read/write web)

Ready for Their Close-Ups
The first of several high quality...

Tech
The first personalized news website...

Social websites scrutinized
Public should be alerted to emerging online services, including Facebook, MySpace, and other personal information sites, as they may be ready to take on the traditional media.

Squidoo!!! (Sharing a lens...)



Lens of the Day

There is no other person responsible to...
...with the...
...the...
...the...

9 Things You Didn't Know

1. How to Use Your Headphones
2. How to Use Paperclips at Home
3. Google Earth - News, Tips & Discoveries for Desktop
4. Google about the World
5. How to Find Your Best Job Offer
6. Everything you wanted to know about...
...the...
...the...
7. Learn to Fly - How to Fly or Make it...
...the...
...the...
8. Learn to Fly - How to Fly or Make it...
...the...
...the...
9. Google the 'New News' Pages

17. Wearable Computing

