Thinking in Future Tense

The Backstory of the 2006 Horizon Report

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The New Media Consortium
In my grandparents lifetime...

- Transatlantic radio
- Electricity
- Radio networks
- Telephone system
- Automobiles
- Air travel
- Washing machines
- Television
- Global monetary system
- Interstate highway system
- Highrise buildings
- Electronic computers
- Space travel
- Satellite communications
- The Internet
- Global positioning system
- Cable television systems
In the Last Ten Years on Campuses ...

The web was built out at a staggering rate
We saw dramatic expansion of campus networks
E-mail and web use entered the mainstream
We figured out how to manage our computers
We made great strides in supporting faculty and students
Course management systems entered the mainstream
Multimedia became accessible to everyone
1994-95 — Ten Years Ago

80% of colleges reported an Internet connection

23% reported having a campus Gopher

30% of campuses had no network at all

CDROM seen as a key instructional delivery platform

Biggest issue was how to acquire and renew computer resources
From Whence We’ve Come

Top Issues Five Years Ago — 1998-99

Integrating IT into instruction

Providing adequate user support

Expanding the campus network

Financing the replacement of aging IT resources

Y2K
THE BLIND MEN AND THE ELEPHANT
(A Hindoo Fable)

It was six men of Indostan
To learning much inclined,
Who went to see the Elephant
(Though all of them were blind),
That each by observation
Might satisfy his mind.

The First approached the Elephant,
And happening to fall
Against his broad and sturdy side,
At once began to bawl:
"God bless me! but the Elephant
Is very like a wall!"

The Second, feeling of the tusk,
Cried, "Ho! what have we here
So very round and smooth and sharp?
To me 'tis mighty clear
This wonder of an Elephant
Is very like a spear!"

The Third approached the animal,
And happening to take
The squirming trunk within his hands,
Thus boldly up and spake:
"I see," quoth he, "the Elephant
Is very like a snake!"

The Fourth reached out an eager hand,
And felt about the knee.
"What most this wondrous beast is like
Is mighty plain," quoth he;
"'Tis clear enough the Elephant
Is very like a tree!"
Thinking in the Future Tense

Diffusion of Innovation & Ideas

Conceptual Models and Tools

Sorting out the Hype
Rogers’ Diffusion of Innovation

- **Innovators** (2.5%)
- **Early Adopters** (13.5%)
- **Early Majority** (34%)
- **Late Majority** (34%)
- **Laggards** (16%)

**Critical Mass Occurs About Here** (16%)

**Time**
Grove Paradigm for Visualizing the Future

Source: Grove Consultants International & the Institute for the Future
The 2006 Horizon Report

Profiles of Six Emerging Technological Areas

Near-Term Horizon
- Social Computing
- Personal Broadcasting

Mid-Term Horizon
- The Phones in their Pockets
- Educational Gaming

Long-Term Horizon
- Augmented Reality & Enhanced Visualization
- Context Aware Environments & Devices

http://www.nmc.org/horizon
Research Questions

What would you list among the core established technologies that colleges and universities should all be using broadly today in teaching, learning, and creative expression?

What technologies that have a solid user base in business, industry, or entertainment should colleges and universities be actively looking for ways to apply?

What are the key emerging technologies you see developing to the point that colleges and universities should begin to take notice during the next 3 to 5 years?

— Project Focus: Teaching, Learning & Creative Expression —
Near Term
Horizon Advisory Board
Meeting - October 5, 2005

AGENDA
- Introductions
- Discussion - 5 Questions
- Lunch (here) 11:45
- Adjourn - NMC Regional
  12:30 Conference begins!
Longer Term
Q2 USED IN
BUSINESS & INDUSTRY,
ENTERTAINMENT...

- ADVANCED VIDEO CONFERENCEING
  (ACCESS GRIDS) / HIGH-DEF SOUND/TV
  - ISSUES OF QUALITY / SOUND/VIDEO
  - NEED FOR IT TO BE SELF-SERVICE
  - TANBERG/CISCO (REMOTE) - BREEZE?

- LEARNING OBJECT ENTERPRISE (MILITARY)
  CORDRA - repository of LO repositories

- NEW YORKER ARTICLE - military use of games, M, etc.

- EVOLUTION OF MAPPING
  - Satellite + maps = map as interface to data

- WORLDWIND - zoom satellite data (NASA)

- GAMING - simulations + roleplay already there.
  MMORPGs - go in as an anthropologist.
  how do people collaborate?
  similarities to other forms of social software

- World of Warcraft / Time / Second Life / Closet world-building
  building virtual residence halls

How can these translate to higher ed?

Q3 EMERGING TECHNOLOGIES

- LOCATION AWARENESS / GPS
  - description of place
  - location-relevant information
  - issues of privacy
  - Dodgeball / cell phone grid

- AUGMENTED REALITY
  - Yellow Arrow - physically annotating the real world
  - 3-D world / AR / "hypermap"
  - "Stumble Stones" (physical)
  - parallel annotation - Artrace
  - physical tagging of real world
  - Social dimension / Social (searching + finding) meaning

- 3-D
  - Visualization, printing, data sets...
  - Fly-throughs of spaces
  - Holographic figures / spaces
  - is it fully immersive / augmented?
    - more engaging - practical
    - rapid prototyping
    - ubiquitous mini projectors / easy to carry
    - or built into laptops

- Flash memory technology
- Interactive coffee tables

- Context-aware / multimodal computing
  - Portfolio "orb"
  - gaze tracking

- RFID
  - Walmart
  - port of entry / shipping

- DIGITIZATION of ACADEMIC MATERIAL
  - Google = Yahoo = input on publishers

- Semantic search
  - search with
  - search on
  - library comprehensiveness
  - searchable archive
  - more subject-oriented
Challenges
Q4 CHALLENGES

- Determining legitimacy (of search results/info)
- Access to broadband (digital divide) - rural vs urban
- Instructional design / faculty development models
  - innovation vs. low-threshold
  - overcoming the memory of difficulty
- Digital asset management
  - archiving/maintaining (historical)
  - staff being used now
  - sharing/IP/usage rights
  - what actually needs to be preserved?
  - how to recover
  - what do you get by letting go? copies as a way to preserve

Q5 TRENDS

- Homeland Security / War on Terror
  - what records are public?
  - what information is private?
  - what information should be controlled/suppressed?
- Viruses / Protection Therefrom
  - remix culture
    - learners expect to be able to remix the curriculum...
    - where is the discipline?
    - people want control over what they learn - how does this impact the way teachers teach?

- Storytelling / role of stories in learning
  - non-linear storytelling
  - gaming - chance
  - replicability - how to preserve as a teaching tool?
  - blogs as a new oral tradition
  - assimilating / integrating information
- "how people learn" stuff
  - it's changing - it will affect how teachers are taught to facilitate learning
  - narrative anchors disciplinary development

- Closing thoughts
  - people about what's out there / coming and what is internationalism
  - humility
  - evaluation / assessment

- Don't lose focus of what's profound
Home
Last changed on Mar 30, 2006 by Anonymous

2006 Horizon Project Wiki

Welcome to the 2006 Horizon Project Wiki. This space has been created as a place for the members of the Horizon Project Advisory Board to manage the process of selecting the foci for the 2006 Horizon Report, which will be co-published by the New Media Consortium (NMC) and the EDUCAUSE Learning Initiative (ELI), and released as part of the closing keynote session of the annual ELI meeting in San Diego on January 31, 2006.

Process Timeline

- Wiki Orientations ✔
- Sandbox Questions ✔
- Press Clippings ✔
- Discussion Questions ✔
- 1st Pass Rankings ✔
- Review Short List ✔
- 2nd Pass Rankings ✔

We're all done!

For additional detail on the timeline, including all activities and due dates, click here or on the graphic above. The menu below will lead you to a variety of resources, news items, discussion areas, links, and more.

Please consider this our collective work area, and feel free to add comments, content, categories, new pages, and lots more resources. You can edit the content of this or any page using the Edit link on the right.

The items in these areas are meant to grow - please add to them liberally from your own readings and environmental scanning - and above all, leave comments!

Current Focus: 2006 Short List — these are the items we are considering for inclusion in the 2006 Horizon Report

STATUS: Advisory Board members are reviewing the 12 items below in preparation for the upcoming final selection the week of December 5, 2005.

PROCESS: Each of the first 12 items below has been placed into an adoption horizon based on the first-pass ranking data, and has undergone initial research. An editable wiki-based one-page summary for each has been prepared in the general format of the Horizon Report that is accessible from the links below. In addition, key trends and critical challenges are also detailed, listed in rank order as they were identified by the first-pass in the process.
Key Trends

- Dynamic knowledge creation and social computing tools and processes are becoming more widespread and accepted.
- Mobile and personal technology is increasingly being viewed as a delivery platform for services of all kinds.
- Consumers are increasingly expecting individualized services, tools, and experiences, and open access to media, knowledge, information, and learning.
- Collaboration is increasingly seen as critical across the range of educational activities, including intra- and inter-institutional activities of any size or scope.
Critical Challenges

- Peer review and other academic processes, such as promotion and tenure reviews, increasingly do not reflect the ways scholarship actually is conducted.
- Information literacy should not be considered a given, even among “net-gen” students.
- Intellectual property concerns and the management of digital rights and assets continue to loom as largely unaddressed issues.
- The typical approach of experimentally deploying new technologies on campuses does not include processes to quickly scale them up to broad usage.
- The phenomenon of technological “churn” is bringing new kinds of support challenges.
Contact Information & Bio

About the Presenter
Dr. Larry Johnson is Chief Executive Officer of the New Media Consortium (NMC), an international consortium of colleges, universities, museums and technology companies dedicated to using new technologies to inspire, energize, stimulate, and support learning and creative expression.

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