Preparing for the Future: Predictions, Practice and Pragmatism

Diana G. Oblinger, Ph.D.
The location of the new economy is not in the technology. It is in the human mind.

– Alan Webber
Learning
Evolution of Learning Theory

1900 1960 1980

Response learning → Knowledge acquisition → Knowledge construction

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Lambert & McCombs, 1998
Competence requires three components:

Students arrive with preconceptions
Learning through Communication

Access and motivation

Online socialization

Information exchange

Knowledge construction

Development

Amount of interactivity

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Salmon, 2000
Learning to “See” Differently

• Culturally embedded language and communication can be visual, verbal and conceptual
• What we can see depends on what we have learned to look for, to think about and to expect; this comes from our culture
• Cultural background constrains from what points of view a person can see things
• Most disciplines are situated in socially constructed contexts
Learning Community

- Learning is fundamentally a social process
- Communities develop shared practice by interacting around problems and solutions
- Communities develop a common store of knowledge
- Addresses tacit knowledge creation and sharing
- More closely connects learning and doing

Adapted from Wenger, 2001
## Learning Options

<table>
<thead>
<tr>
<th>Learning Option</th>
<th>Tech</th>
<th>Campus</th>
<th>Online</th>
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</thead>
<tbody>
<tr>
<td>Face-to-face discussion</td>
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<td>Lecture</td>
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<td>Satellite or videoconference</td>
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<td>Print-based content delivery</td>
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<td>CD-ROM</td>
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<td>Audio/radio</td>
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<td>Web-based delivery</td>
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<td>Just-in-time</td>
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<td>Hybrid</td>
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<tr>
<td>Competency based</td>
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<tr>
<td>Learning community</td>
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Assessing Learning Outcomes

Meaningful learning

No learning

Rote learning

Learning outcomes

Retention tests

Transfer tests
America is the first culture in which the young teach the old.

– Margaret Mead
Learners
Who Are Our Learners?

- Traditional 18-22 year olds?
- Full time vs. part time?
- Degree seeking?
- Residential or commuter?
- First generation college?
- Transfer student?
- Learning style?
UOP Learner Profile

- 34 years old
- 55% female; 45% male
- 39% are minorities
- Average household income: $54,000
- Average 45 hours of transfer credit
- Attended 4 other educational institutions
Reason UOP Selected

Undergraduate students
  • Reasonable completion time
  • Small class size
  • Convenient class time
  • Immediate use of skills
  • Convenient location

Graduate students
  • Interaction with fellow students
  • Experience of faculty and students
  • Real-world faculty
  • Development of teamwork skills
  • Convenient location

Guvenoz, 2001
Information Age Mindset

- Computers aren’t technology
- The Internet is better than TV
- Reality is no longer real
- Doing is more important than knowing
- Nintendo over logic
- Multitasking is a way of life
- Typing is preferred to handwriting
- Staying connected is essential
- Zero tolerance for delays
- Consumer and creator are blurring

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Adult Learners

- Adults need to know why they are learning something
- Adults have experiences that should be built on
- Adults learn best from problem-solving, hands-on approaches to learning
- Adults expect to apply new knowledge immediately (aiding retention)

Knowles, 1970
Attitudinal Drivers

- Self-service and self-control
- Customer-service
- Demand for immediacy
- Impatience with bureaucracy
- Integrated environment
- Desire to be “connected”

Adapted from Kvavik, 2001
Students Value

- Making connections between in- and out-of-class activities
- Working and studying in groups
- Mentored internships
- Being exposed to people of diverse backgrounds
- Participating in extra-curricular activities
Student Engagement

• Level of academic challenge
• Active and collaborative learning
• Student interactions with faculty members
• Enriching educational experiences
• Supportive campus environment
Paranoia has real survival value in the e-economy because the competition is from anyone and everywhere....

– Hartman & Sifonis
Marketspace
Space vs. Place

Virtual World: Information

Physical World: Resources

- Hallmark is relationships
- Multiple connections are possible
- Unlimited ability to absorb connections and relationships
Born on the Web Companies
The Big Bang

- e-companies emerged in the late 1990s
- Analogous to the “big bang”
- Net-generation companies are now coalescing into distinct constellations of products and services
Categories of Vendors

- Course management systems
- Portals
- Virtual classroom tools
- Off-the-shelf content
- Self-paced authoring tools
- e-Libraries
- Assessment tools
- ERP systems
- Online application systems
- Supplemental content providers
- …more
A Year of Change

2000
- VC raised
- Concept investment
- Get big fast
- Land-grab
- Ad supported
- Technology solutions
- Top line
- Product

2001
- Revenue realized
- Return on investments
- Start small to get big
- Retain customers
- Fee for service
- Learning solutions
- Bottom line
- Service

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Where Have They Gone?

- edu.com
- Bigwords.com
- Wize-Up
- Embark
- Simplexis
- zUniversity
- EduPoint
- fatbrain

- Pensare
- Zany brainy
- iMind
- Ibooks
- Learning Studio
- Wwwrrrr.com
- HighWired
- LearningPays.com
Consolidation

- Investment in e-learning firms has slowed
- Merger & acquisition activity is up
- 35 firms were acquired or merged with other education companies
- After the “big bang” e-learning begins to look like a rational market
- Fewer firms; more realistic business plans
Reshaping the Market

- Companies achieve more success through cooperation than working alone
- The biggest opportunities come from “changing the rules of the game”
- When companies work together they can create a larger and more valuable market
- Change the value net by adding players or adding new value

Brandenburger & Nalebuff, 1998

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WebCT

- Gained $70 million in financing in 2000, including $50 million from Thomson
- Used by 1,600 institutions and 5.8 million students
- Strategic partnerships with Campus Pipeline and SCT
- Offers “e-Packs”, publisher provided academic materials for use in WebCT
  - Animations
  - Sample syllabi
  - Lecture notes
  - Quiz and test banks
  - Glossaries
Thomson Learning

- Leader in postsecondary publishing; focused on e-learning solutions
- Acquisitions/Investments
  - Purchase of Sylvan’s Prometric (testing & certification) ($775 million; January 2001)
  - Investment in WebCT ($50 million; September 2000)
  - Acquisition of Harcourt higher education and corporate divisions ($2 billion; October 2000)
- Partnered with Apollo Group (May 2001)
- $1.75 billion company with strong revenues, deep market penetration, volumes of content and technology resources
Jenazbar

- Founded in 1998; $60 million invested in 2000
- Acquisitions
  - CARS
  - Quodata
  - CMDS
  - Campus America
- Today, services span admin, CMS and portals
  - Registration, admissions and other admin functions
  - Online community and online learning
  - Publishing course materials
- Partnership with Tutor.com brings tutoring services to the campus portal
Growth in Education Segments

- Postsecondary education industry grew to $9.3 billion in 2000
- Growth rates of 12% predicted through 2003
- K-12 professional development will grow at 15% to reach $2.3 billion in 2003
- Testing and assessment will grow at 10-15% per year, with online testing increasing
- For-profits gaining greater share of the market for both 2-year and 4-year institutions
e-Learning Market

• The current $4 billion higher education e-learning market opportunity is predicted to grow to $11 billion by 2003

• Within 18 to 24 months e-learning will be dominated by two or three large players; the market will see rapid, horizontal consolidation among categories.

• Content players (Pearson, Thomson, AOL, etc.) will drive the next phase of e-learning market development
e-Learning Contenders?

- Thomson Learning
- WebCT
- Campus Pipeline
- University of Phoenix Online
- Smarthinking
- Questia
- PeopleSoft
- ….and many more
To adapt is too dangerous because you are always behind.

– Peter Drucker
New Models
Done in by the Definition?

- Learning = schooling
- Being educated = college degree
- University = place
- Quality teaching = most expensive person in front of students
- Secondary education = age limited
Non-Formal Learning

• Non-formal science education programs
  – Museums
  – Snorkeling
  – Parks
  – Tours
• Elderhostel
• Alumni learning
Financial aid

Annual Financial Aid Award Notice (FAAN) for Dodge, Ren

For each award listed below, indicate whether you want to accept the award, decline the award, or accept the award for a reduced amount. For a detailed description of the award, click on the award name.

You must notify your financial aid office of other assistance or additional awards you receive. See below for directions.

Year 2000-2001

<table>
<thead>
<tr>
<th>Total Financial Aid Offered for the Year 2000-2001</th>
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<tbody>
<tr>
<td>2000-2001 Award</td>
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<tr>
<td>Federal Pell Grant</td>
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<tr>
<td>Federal Perkins Loan</td>
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<tr>
<td>Ford Federal Subsidized Loan</td>
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<tr>
<td>Ford Federal Unsubsidized Loan</td>
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<tr>
<td>MN State Grant</td>
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<tr>
<td>Aid Totals</td>
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</tbody>
</table>

Notify your financial aid office of additional awards
Welcome to the ATS Online Personal Assistant Chat with an ATS Online Personal Assistant. It is available only during our Normal Office Hours which are:

NOTE: This is not a "Chat Room" but rather a two party chat between an Adult and Transfer Student Online Personal Assistant. It makes the Assistant to respond to your inquiry.

Bob R.: Good morning.

Guest104: Is it too late to apply for admissions for the fall?

Bob R.: The application deadline for the fall semester is August 1st, and the spring semester deadline is December 1st.
Smarthinking

- Students ask questions of trained instructors
- Synchronous, asynchronous and prescheduled tutoring sessions
- Assistance available in math, statistics, economics, accounting, grammar, chemistry and Spanish
- Support provided to 100 institutions, Army and Houghton-Mifflin
- New partnerships with consortia in 6 states to provide around-the-clock tutoring and academic support
eArmy University

- Partnership between:
  - Army
  - PwC
  - academic institutions
  - Smarthinking.com
  - Compaq
  - others
- Implemented in 27 days
- Growing enrollment
P-16 Education

- Americans need 15 years of education over their lifetime
- US college going rate is not the world’s highest (nor graduation rate)
- The senior year and graduation become a “relay station” not an end
- Move beyond separate systems to a more seamless, integrated system
Learning Bank

- Repository for learner’s academic records
  - Credit
  - Non-credit
  - Industry certifications
  - Other records of learning and accomplishment
- Can be queried similar to a credit report
- Aggregated nationwide
- Prototype: Career Management Account
New Kind of “Schoolhouse”

- Redesign physical spaces to restore the “human moment” in education (87% of all students commute)
- Create proximity to a scarce resource: people
- Integrate student services and academics
  - Computer lab
  - Food service
  - Student services (e.g., career counseling)
- Future model will be a hybrid
  - Technology
  - Architecture
  - People
e-Books

- Digital books
- Book-reading appliances
- Software book readers
- Portable personal digital libraries
- New genre
  - Multimedia scholarly compendia
  - Multi-form guides (book, online site, CD)
Communities of Practice

- Communities of practice engage in collective learning that creates bonds between members.
- Communities develop shared practice by interacting around problems, solutions, insights and build a common store of knowledge.
- Members engage in joint activities, discussions, help each other and share information.
- Communities of practice allow a closer connection between learning and doing.

Wegner, 2001
Skate to where the puck will be.

– Wayne Gretzky
Pragmatism
Guiding Principles

• Focus on the user
• Know your constituents
• Encourage collaboration
• Integrate and augment
• Manage technology as an investment
• Rethink historic assumptions
• Embed policies in procedures
• Enhance what is distinctive
Necessary vs. Sufficient

- Use of the Internet and the web will be necessary for learning, but not sufficient
- College & universities are important, but learning will extend to other venues
- Cooperation will be a precursor to competition
- A focus on technology will be necessary, but people will be the most challenging
Market Realities

• New groups will be involved in e-learning decisions
• The market will continue to be volatile
• Standards are not yet in place, so anticipate changes within 2 years
• The most powerful applications will move beyond a classroom model
• An end-to-end solution will be elusive
CRM for Higher Education

- Learner-relationship model
- How are students brought into the institution?
- How do students learn?
- How do they receive services?

<table>
<thead>
<tr>
<th>Recruiting</th>
<th>Learning</th>
<th>Service</th>
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<td>Web</td>
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<td>Phone</td>
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<td>In-person</td>
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Learning Environments

• Classroom
• Online “class”
• Performance support
• Simulation
• Virtual reality
• Learning community
• Knowledge management
Choosing Tools

Impact

High

Low

Ease of execution

Low

High

Content on demand

Reuseable objects

Virtual classroom

Mentoring

Assessment

Adapted from Cisco, 2001
Vendor Selection Criteria

- Fit of the solution with organizational needs
- Viable business model; adequate financial resources
- Reputation and past performance
- Reliability/stability of vendor
- Scalability of solution
- Adherence to standards
- Alliances that lead to seamless solutions
- Cost for value
## Readiness Components

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<thead>
<tr>
<th>Component</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
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<td>Leadership</td>
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<td>Learner-centered</td>
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<td>Culture to support change</td>
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<td>Stakeholder buy-in</td>
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<td>Governance/organization</td>
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<tr>
<td>Policy</td>
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<td>Functional alignment</td>
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<td>Financial resources</td>
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<td>Human resources</td>
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<td>Technology resources</td>
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<tr>
<td>Assessment/quality</td>
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</table>
In a time of dramatic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists.

– Eric Hoffer