The Impact of Social Dynamics on the Teaching and Learning Process

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I. Technology as a Social Force

- Technologies are a social force driving institutional and personal changes

- Emerging technologies have always challenged the social order from the discovery of fire to the invention of the wheel, to the light bulb, to the Internet.

- ♦ The rapidity of change will force increased ambivalence between embracing the future and longing for the past.
II. Today’s learners

- Digitally literate
- Mobile
- Knowledge arrogant
- Always on
- Experimental
- Community Oriented

♦ --Chuck Dziuban
II. Technology and Behavior

The technologies available as a generation matures influence their behaviors, attitudes and expectations. People internalize the technologies that shape information access and use as well as the ways they communicate.

♦ (Net Generation Intro 6.2)
III. Technology Driven Change and Higher Education

- Higher Education is at a point of general uneasiness about its future and the role of the academy in the new “education industry.”

- “Students are buying access to intellectual and mental resources that if pursued with rigor and diligence may yield a wide range of intellectual and life benefits.”

  -- John Hitt, UCF

- We are struggling to reconcile the language of temporary markets with the language of the academy.
IV. Space Configuration Which Blends the Physical and Virtual
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The New Classroom: is a free-floating array of information, ideas and experiences which can be pre-arranged, self-selected or a work in progress.

- Interactive lecture hall
- Handheld computers in class
- SR Systems
- iPods
- Threaded discussion groups
- Whiteboards
- Theme lounges
- Online portfolio locker
- Pervasive wireless networks
- Virtual team pods
- Learning commons
- Brokering pits
- Conversation pits
I. Technology and the Machine:

“...man seeks to extend himself through technology.”

“...the machine is the child that technique bore.”

♦Jacques Ellul
I. The Machine and its Technology:

- “The significant outward forms of the civilization of the western world are the production of the machine and its technology.

- ...In its effect upon men’s external habits, dominant interests, the conditions under which they work and associate,

- whether in the family, the factory, the state, or internationally, science is by far the most potent social factor in the modern world.”

philosopher John Dewey

II. Among other differences are:

- Their ability to read visual images—they are intuitive visual communicators
- Their highly developed visual spatial skills—perhaps because of their expertise with games they can integrate the virtual and physical
- Their comfort with inductive discovery—they learn better through discovery than by being told
- Their attention deployment—they are able to shift their attention rapidly from one task to another and may choose not to pay attention to things that don’t interest them
- Their fast response time—they are able to respond quickly and expect rapid responses in return
- Their sense of audience—they live in a world of watching and being watched.

*(Net Generation Intro 2.4-2.5)*

rapping
“Life in the e-hood.”

---Chuck Dziubon
“Today’s kids preferred style of problem solving is **bricolage**: sorting through resources at hand (objects, tools, documents, data) and rearranging them until they work.”


**Claude Levi-Strauss described the process of bricolage—tinkering—through which individuals learn by exploring and manipulating objects around them.**

*(Net Generation Intro 6.4)*
“Young people who see the computer as evocative objects, that can serve as extensions of physical presence.”

♦ --Vicki Suter
FROM:

“People over 30 who see computers and technology as extensions of logic, calculation, linear, reductive and hierarchical.”

Berkman

TO:

“People under 30 who see the computer as providing an environment of simulation, navigation and interaction.”

Vicki Suter

TO:

“People under 20 no longer see the computer but are immersed in the landscape(s).”

♦ R. E. Tyndall
III. From experimentation to realization—
The changing social landscape:

- Schools without walls; expeditionary learning
- Learning communities, a reaction to personal disengagement and loss of place and connection
- Distance education has raised early warning signs of the struggle between learning and learning authority
- The Internet serves to distribute personal power on a massive scale through a commodity infrastructure
III. Leveling the Monolith

Higher education as it has been historically organized may be fighting a loosing battle with the rapid redistribution of knowledge assets

- While higher education has a higher degree of personal choice and flexibility than public schools, it has many unresolved problems associated with its past organizational systems.

- Static curricula, partitioned content and a “keeper of the sacred scrolls” mentality are colliding with knowledge confederations, broad and diverse access and learner driven timing and sequencing.

- “In its simplest form the argument goes like this: when the tasks people perform are well understood, predictable, static, routine and repetitive a bureaucratic linear structure is the most efficient.”

♦ --Complex Organizations
Carole Barone of EDUCAUSE asserts that a new academy must form if higher education is to remain relevant and responsive in changing times. She describes the interplay of culture and technology along with new cultural values and a new style of leadership as some of the characteristics of the new academy.

(Net Generation Intro 1.4)
“The goal is an organization that is making its future, rather than defending its past.”

♦ Valekangas, 2003
IV. Early Indicators of Change HE

- Expansion of the “Learning Community Model”

- Blending of Traditional and Virtual Environments

- ♦ Emphasis Upon Sub Communities in Smaller Units to Provide Comfort and Identity
IV. Proliferation of Social Software

- Blogging
- Wikis
- Common Canvas—Multiple Painters (Visual → Motion → Sound → Text)
- Creative Commons
  - Shared Instructional Objects
  - Knowledge Repositories
  - New Copyright Structures for Open Sharing and Re-invention

*When knowledge moves to invention: to understand is to invent.*

♦ --Piaget
IV. The constructivist theory has important implications. The theory implies that learning is best served when it is:

- **Contextual**—taking into account the student’s understanding
- **Active**—engaging students in learning activities that use analysis, debate, and criticism (as opposed to simply memorization) to receive and test information
- **Social**—using discussions, direct interaction with experts and peers and team-based projects
- **Problem-based learning**, which encourages learners to construct knowledge based on the experience of solving problems, is significantly different from methods such as recall and repetition.

*(Net Generation Intro 12:5)*
IV. This is not new wine in old bottles.

Cognitive/constructivist perspective:

The construction of mental structures sparked by experiences (1)

Students can observe the outcomes of different paths of action in order to form sound understandings (2)

Successes and mistakes are important to robust mental models (3)

From “learning by discovery,” “hands on learning,” and “learning by doing” to easily erasable or created simulated environments

♦ Greeno et al, 1966
IV. Social Software as Enabling Systems

SOCIAL SOFTWARE:
Social Software is a tool for enhancing the scope and depth of learning and collaborative capabilities.

- A medium for facilitating social connection and idea exchange
- An ecology for enabling a “system of people, practices, values and technologies in a particular environment”
- An immediate application for the association, evolution and collective action of groups
IV. Social Software as Enabling Systems

“When using technology, student satisfaction with the learning experience increases as social engagement related to learning tasks increases.”

♦ Tyndall, Eduprise Partners Conference, Orlando, 1998
IV. Social Software as Enabling Systems

The implications of social software for the organization and delivery of learning:

- Something as simple as name tags which can be programmed to recognize common response patterns may have a place in classrooms or conferences of the future (or in single’s bars.) (2)

- Subgroups or special interest groups organize themselves into discussion forums and begin the process of collaborative interchange and learning. (1)

♦ SOURCES:
(1) Tyndall, R. E., NLII, Orlando, 2001
(2) Tyndall, R. E., The Knowledge Ecology, 1998
V. The Role of Faculty

Sage on the Stage
("The university classroom is a place where young people go to be amused and to watch adults work.")

Guide on the Side

Model, motivate, monitor, manage in the middle
V. The Role of Faculty

“Might as well jump into a blender;”
getting reticent faculty
to use technology.

♦ --Chuck Dziuban
V. The Role of Faculty

- Create user groups and blogs, F2F communities
- Guide IT personnel to help make their work easier
- Establish “best practices” workshops and roundtables
- Familiarize themselves with the pedagogical power of “communities”
- Create portals of combined experiences
- Establish shared repositories for learning objects
“Technology is not kind; it does not wait; it does not say please. It slams into existing systems while creating new systems”.

*Business Cycles: A Theoretical Historical and Statistical Analysis of the Capitalist Process*, Joseph Schumpeter, 1939, Pg. 172
About IT

‘When you dance with a bear you can’t just quit when you get tired.”

--Chuck Dziubon
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