

**The Impact of Technology on Higher Education and Brown University
Luncheon at the Taubman Center, Brown University**

Meeting Notes from June 14, 2000, 11:30 am – 1:30 pm

These notes are an attempt to put on paper some of the key points made during our luncheon on June 14th. Thank you again for your participation. We encourage your feedback on these notes and look forward to our next discussion.

- 1) **Premise:** Technology is entering higher education through a number of avenues, including virtual education, changes to pedagogy, and institutional efficiencies. In the end, the value that technology can add to teaching and learning will have the most important and long-lasting impact.
- 2) A contrasting point was made that administrative costs have ballooned and they are drawing resources away from the educational mission. Technology should be leveraged to reduce the costs of administration first. If administrative costs are not kept in check, attempts to improve education will be confined by existing constraints.
- 3) A degree of skepticism centered on the lack of evidence that technology is improving learner outcomes and higher education's slow adoption of cutting edge technologies.
- 4) Through relatively simple uses of technology, such as putting course notes on the web for student review and then replacing lectures with in-class exercises and discussion, in-class time is transformed into an interactive, rich experience.
 - The question was posed, "What is the difference between posting course notes on the web and leaving them at the reference desk in the library?" The key is accessibility. Removing obstacles to obtaining the course notes revealed that the students were willing to review the course notes on their own.
 - But, as excitement about the web wanes, will students continue to access course notes this way, or is this an example of the Hawthorne effect?
- 5) The technologies currently used in education are already outdated, or what Andy van Dam calls "transitional technologies." Despite decades of research in this area, higher education has not made much progress toward incorporating technologies that are state of the art. However, current uses of technology are useful for drills, simulations, shallow interactions and creative projects.
- 6) There are appropriate and inappropriate uses of technology in education. We need to think carefully about who should be using technology, at what age, and for what learning exercises. For example, do we want young children to spend a lot of time at computers?

- 7) Much of the research about pedagogy and learning styles has not been integrated into the classroom. New technologies should force renewed attention to good pedagogy, and should attempt to reinforce aspects of human nature. For example, storytelling is an ancient mode of passing on knowledge.
- 8) The web has democratized access to and distribution of information, but the amount of information available via the web is now overwhelming. Students do not have the evaluative skills necessary for sifting through the massive quantity of material available and discerning what is good information from a reputable source. The information found in a library has already been filtered by an authority. Higher education must take on the responsibility of teaching students these skills.

Concerns for Brown University:

- 1) Would making the Brown curriculum available online to many students dilute the brand name? What is Brown's "product," and how is that product threatened by large-scale distribution?
- 2) There was agreement that uses of technology at Brown, and Brown's traditional campus, will increasingly interact with each other and start to blur.
- 3) Should Brown make a commitment to online education for a self-selected group, such as graduate students or alumni, or an institution-wide commitment that includes undergraduate students?
- 4) In the early 80s, Brown received enormous attention for creating electronic classrooms. Now those classrooms are outdated and that investment has been lost. Will that happen again? Does it pay to be on the cutting edge?
- 5) Failure at some initiatives will be an important part of moving toward more use of technology. At what level can Brown still afford to fail?
- 6) The following suggestions were made for helping Brown develop an institution-wide commitment to the use of technology:
 - Encourage risk-taking and experimentation
 - Keep initiatives at a level where Brown can afford to fail
 - Spend time and money on evaluation and evidence
 - Support innovators financially
 - Provide innovators with technology training and support
 - Develop forums for faculty to interact, learn from each other, collaborate

- 7) The group agreed that Brown needs an institutional commitment to using technology in appropriate ways. The group would like to continue to meet to discuss these issues.
- 8) The Futures Project plans to reconvene this group. During that session there will be a demo of one of the many technology initiatives here at Brown. In addition, a web page with links to various technology initiatives has been started at:
http://www.brown.edu/Departments/Taubman_Center/Futures_Project/browntech.html

We recognize that this page is by no means exhaustive. We welcome your suggestions for further examples.