

THE NET-ENHANCED

University

By William A. Sederburg

*We are on the first letter of the first word of the first sentence of the book of global
interconnectivity.*
—Andrew Zoll, 1999

The explosive growth of information technology provides college and university administrations with significant challenges. At one level, information technology acts like an insatiable, hungry monster ready to eat up any available money in the budget. At another level, information technology provides institutions wonderful opportunities, if only the monster can be tamed. Among the possibilities of information technology for higher education, one development stands out: the phenomenal growth and power of the Internet. Although software, hardware, and support issues are significant, more critical is the question of how a college or university can use the Internet most effectively.

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Rationale for an Internet Strategy

Use of the Internet is growing quickly throughout all aspects of colleges and universities. For example, at Ferris State University (FSU), with an enrollment of 10,500 students, the number of individuals accessing our Web site has quadrupled in the past three years. We now average well over 100,000 unique visitors per month. Bandwidth usage has also quadrupled over the past three years. Meanwhile, the Internet is dramatically changing the delivery of education and support services. At FSU, faculty are increasingly using the Internet as part of their instructional delivery. Students use the Internet extensively for their research. Our new technology-rich library hosts nearly one-fourth of our students daily! The challenge facing any college or university is how to make sense of this explosion of activity and how to direct it toward fulfilling the institutional mission.

In taking on this challenge, I have been impressed with the writings of David Siegel, Don Philabaum, Chuck Martin, and other technology futurists, who speak about how modern organizations need to shift as much activity as possible to Internet-based applications.¹ Thus, whenever I originally spoke on campus about our Internet strategy, I used Philabaum's term "net-centered campus" to describe my goal for FSU. But I've stopped using that term, for two reasons. First, the term may be misleading. To a number of faculty members, "net-centered" meant shifting all educational services to the Internet. What we really want is to be "net-enhanced"—with the university using the Internet to enhance our core activity (instruction), facilitate dialogue, and improve our services to students and other constituencies.

Second, the press and technologists may have overemphasized the significance of the Internet. Although it is true that the Internet is a significant new element in the way we communicate and do business, it is also clear that it has not yet gained total dominance over more traditional methods. According to a survey conducted by the U.S. Department of Commerce in August 2000, less than half (42 percent) of Michigan households had access to the Internet. Internet users composed 44 percent of the population nationwide. Among those ages eighteen to twenty-four, the number increased to 57 percent, still a considerable

distance from 100 percent. Speed and bandwidth accessibility also limits Internet use. In August 2000, only 11 percent of the households in the United States used high-speed access lines; the remaining 89 percent relied on modems.² This limitation hinders the ability of higher education institutions to use video and other multimedia programs to reach the population and also negatively affects students' ability to use the Internet where they live.

The real power of information technology lies not with individual computers but in the networking of computers through the Internet. Computing power is maximized through shared use rather than individual use. The phrase "net-enhanced university" is thus a useful metaphor to provide a conceptual basis to information technology strategies and to focus attention on the change in information technology.

Why a "Net-Enhanced University" Initiative?

According to David Siegel, without a strategy for meeting the needs of students (Siegel uses the term "e-customers"), an organization will make significant errors. These errors or traps usurp dollars, personal effort, and organizational focus. Most organizations fall into the following four key traps:

1. Not taking the medium (the Internet) seriously
2. Trying to do everything for everybody
3. Purchasing technology for the sake of technology
4. Using the Internet as a form of "brochureware"³

Before taking action at FSU, we critiqued our past practices and found that we had fallen into Siegel's traps. We had not implemented a strategy to maximize the use of the Internet. We had tried to respond to everyone's information technology needs as much as financially possible. And we had used the Web site and the Internet more for data storage than for dialogue among constituencies. Since successful leadership on a diverse campus rests in combining conceptual directions for change with management authority, we moved the concept of becoming a "net-enhanced university" into a specific initiative, complete with action plans.

At the heart of this initiative was a major paradigm shift. Information technology is now communications technology. On our campus, as on many campuses, there is a significant generational gap between older and younger Internet users. Older users tend to look to the Internet primarily as an information source. Web sites designed as information sources reflect the organizational structure of the institution and essentially serve as a file cabinet of institutional brochures. This is what Siegel refers to as "brochureware." Younger users, on the other hand, tend to view the Internet not only as an information source but also a means to communicate with their peers and others. Web sites designed as communication sources emphasize linkages to individual e-mail addresses and focus on personal customization of information. Their structure is based on customer needs, not organizational structure.

If the Internet does indeed create a new form of interpersonal dialogue, then another significant change occurs: use of the Internet is more about human relations than about technology. As a matter of human relations, Internet communication thus should be as *personal* as possible and as *decentralized* as possible.

Personalizing the Communication Structure

Personalizing the communication structure requires the ability to anticipate what Web visitors are likely to want from a site and with whom they will need and want to dialogue. Good Web sites are organized by stakeholder group (e.g., prospective students, current students, alumni, visitors) rather than by organizational unit. Good Web pages lead the viewer to the potential of interacting with an individual.

Too much time and effort can be wasted trying to establish a "good image" for the organization. Graphic-intensive Web sites are not very effective if the graphics impede, rather than facilitate, personal communication (by slowing down the process).

Personal communication is likely to expose both the positive and the negative sides of the institution. Negative people on campus may convey their negativism to prospective students. However, positive people will more than compensate (we hope) by telling a positive story about the institution. On balance, we need to become comfortable with the notion that



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our stakeholders will know who we really are—warts and all—and that they will share their opinions with others.

Thus the information communicated by a Web site should be authentic as well as empathetic. In short, the dialogue generated over the Internet should be personal and real!

Decentralizing the Communication Structure

A second aspect of Internet communication is the decentralization of dialogue. Decentralization has two dimensions. The first is that multiple people speak for the institution. The second is that responsibility for content on the Web must be distributed throughout the organization.

We have attempted to decentralize the communication structure on the FSU Web site according to these two dimensions. One goal is to provide an employee's e-mail address to go along with virtually every link and every possible subject of interest. However, far too many of our pages still do not provide for conversation or human connectivity. This effort has turned out to be a huge and continuing challenge.

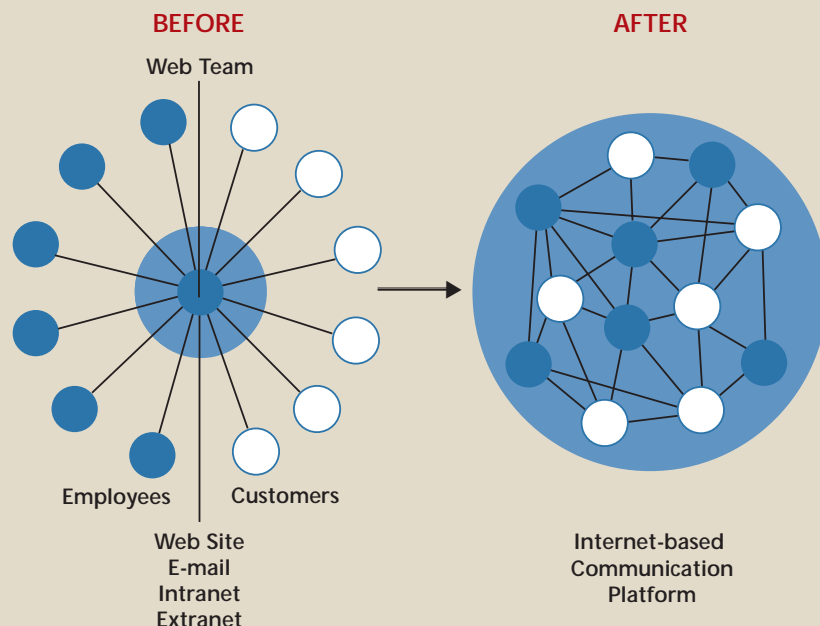
It is, of course, one thing to publish an e-mail address; it is quite another to train and empower every single employee to speak on behalf of the institution to any stakeholder—from grade-school student to Board of Trustee member. The goal here is to have a “no wrong door” system in which answering a query becomes every-

one's responsibility. For example, I regularly receive and respond to students' e-mail messages. In these e-mails I receive numerous great ideas. Students are shocked that I actually respond to their messages in a personal manner. I also e-mail all prospective students and enter into a dialogue with many of them about education at FSU.

The before-and-after diagrams in Figure 1, from Siegel's book *Futurize Your Enterprise*, illustrate the change to a decentralized communication system.⁴ In the recent past, FSU closely resembled the communication bottleneck depicted in the “before” diagram. We had a single Webmaster answering or parceling out e-mail messages. We certainly weren't encouraging anyone to strike up a conversation with us! Now we are moving toward the communication system depicted in the “after” diagram. Our efforts to diffuse responsibility for the Web to content coordinators and developers from units throughout campus definitely take us in that direction. However, our emphasis to date has been on developing content rather than on building relationships. The plan now is for our new team of Web content managers to teach their new Web skills to other employees. The resulting army of Web communicators will

- exponentially increase the ability of the university to communicate mission-critical messages and to

Figure 1





The Internet allows an institution to facilitate the human communication factor. It is particularly powerful in recruiting students, faculty, and staff.

- communicate these messages in human, non-high-falutin' tones;
- vastly improve the quality of the Web site as the concept that "all pages are external pages" gains credibility;
 - underscore the importance of soliciting and answering e-mails; and
 - foster the concept that building relationships and communicating with stakeholders is everyone's business.

The personal dialogue facilitated by the Internet restructures the roles played by everyone at a college or university. Everyone is a public relations officer. Everyone is a representative of the institution.

Marketing and the Internet

The rapid increase in the use of the Internet is having a dramatic impact on the recruitment strategies of higher education institutions. Clearly, no element more critical to the college or university has been more affected by the Web. In a survey of six hundred high school juniors and seniors, Embark.com found that high school students "overwhelmingly are using the Internet to research, query and

tour campuses."⁵ Sixty-eight percent preferred e-mail reminders as the format to receive information from colleges and universities.

The power of the Internet for recruitment is reflected in the numbers. In January 2002, FSU had 389,182 visits to its Web site, of which 3.9 percent were international. The introductory Web page for prospective students was visited by 2,302 students during the first week of February 2002. Students are using the Internet to shop around and to find the right school for themselves. Our ability to successfully engage students is increasingly relying on an effective Web strategy.

It may be helpful to look at what marketing experts say about appropriate strategies. In 1999 Christopher Locke, Rick Levine, Doc Searles, and David Weinberger published *The Cluetrain Manifesto: The End of Business as Usual*. Like Martin Luther, who nailed his theses to the Wittenberg church door in 1517, the book authors wrote ninety-five theses. Their theses, however, deal not with church reformation but with the impact of networked communication on marketing. The top three theses offer a feel for the remaining ideas:

1. Markets are conversations.
2. Markets consist of human beings, not demographic sectors.
3. Conversations among human beings *sound* human. They are conducted in a human voice.⁶

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Guiding Principles for a "Net-Enhanced University"

Borrowing from Philabaum,⁷ but adding my own perspective, I offer here eight guiding principles for moving toward a net-enhanced institution:

1. *Serve the Core Activity.* In all that we do related to information technology, we need to focus our efforts on strengthening the core activity of the institution: instruction.
2. *Recognize the Limits to Technology.* We need to recognize the pedagogical limitations

of information technology. Education is not a downloading of data from one person to another. It is an active process. It is a social process. In their book *The Social Life of Information*, John Seely Brown and Paul Duguid state what educators already know: learning is highly influenced by the social setting. They suggest that most learning occurs in “communities of practice.”⁸ Internet communications can help create and strengthen these communities of practice.

3. *Create a Policy Structure.* We need to create a policy and organizational structure for facilitating and supporting a net-enhanced institution. Ideas are to establish technology-support consortia to serve multiple departments, form a Web advisory board, adopt an intellectual properties policy, train Web-content specialists in each major unit on campus, and create the positions of Chief Information Officer and Chief Technology Officer.
4. *Provide Technical Infrastructure.* We need to provide adequate technical infrastructure to use the Internet effectively.


Although the technical infrastructure needs are substantial and costly, a net-enhanced institution requires up-to-date, reliable infrastructure—ranging from providing connectivity to ensuring reliability of Internet access to incorporating wireless technology.

5. *Provide Personnel Infrastructure.* We need to provide adequate education and training opportunities for all employees and students. A net-enhanced institution cannot become a reality unless the entire campus community is educated and empowered to use the Internet effectively.
6. *Build Communities.* We need to use the Internet for dialogue, with the goal of building communities both on campus and within professional communities of practice. This can be done by using portal software and by training all community members to use listservs, chat rooms, and bulletin boards to engage their stakeholders.
7. *Digitize.* We need to digitize as much institutional data as possible and make

the data available through the Internet for business and educational uses.

8. *Don't Duplicate.* We need to resist using technology to duplicate what we already do. The idea is to do things differently. Often the tendency is to “layer on top” extra responsibilities related to technology and to ask for additional staff. Ultimately, we need to find ways to drop some current practices to make room for a new way of doing business. The goal is to incorporate the Web into the normal practices of the college or university.

Conclusion

Ferris State University is making significant progress in becoming a Web-enhanced university. FSU is hardly unique, however. All higher education institutions are facing the same set of technology-related issues. I have no idea how successful we will all be in addressing those issues. But I am confident that the net-enhanced future will soon be here regardless of what we do. The issue is whether we will become overwhelmed by its potential impact or whether we will approach that future rationally, meeting the challenges and embracing the opportunities. 

Notes

A lengthier, more detailed, version of this article is available on the FSU Web site: <<http://www.ferris.edu/htmls/administration/president/net/>>.

1. David Siegel, *Futurize Your Enterprise: Business Strategy in the Age of the E-Customer* (New York: Wiley, 1999); Don Philabaum, *Create a Net-Centered College Campus: Developing Your Campus-Wide Internet Strategic Plan* (Akron, Ohio: Internet Association Corporation, 1999) <<http://www.iaccorp.com/netcentered/>> (accessed July 15, 2002); Chuck Martin, *Net Future: The Seven Cyber-trends That Will Drive Your Business, Create New Wealth, and Define Your Future* (New York: McGraw-Hill, 1999).
2. U.S. Department of Commerce, National Telecommunications and Information Administration, *Falling through the Net: Toward Digital Inclusion*, October 2000, <<http://www.ntia.doc.gov/ntiahome/fitn00/falling.htm>>, 22, 33, 23 (accessed July 15, 2002).
3. Siegel, *Futurize Your Enterprise*, 26.
4. *Ibid.*
5. “Attracting Students to Your Campus,” *The Presidency*, winter 2001, 10.
6. Christopher Locke, Rick Levine, Doc Searls, and David Weinberger, *The Cluetrain Manifesto: The End of Business as Usual* (Cambridge, Mass.: Perseus Books, 1999). See also the Cluetrain Web site: <<http://www.cluetrain.com>>.
7. Philabaum, *Create a Net-Centered College Campus*.
8. John Seely Brown and Paul Duguid, *The Social Life of Information* (Boston: Harvard Business School Press, 2000). See also John Seely Brown, “Growing Up Digital: How the Web Changes Work, Education, and the Ways People Learn,” *Change*, March/April 2000 <<http://www.aahe.org/change/digital.pdf>> (accessed July 15, 2002).