Current Issues for Higher Education Information Resources Management

The CAUSE Current Issues Committee is responsible for proposing a list of current or developing issues and trends that are important to the future of information resources management and use in higher education. The following topics have been identified by the committee as key emerging or ongoing issues. We encourage articles for CAUSE/EFFECT on these and related topics.

[Integrating Planning for Information Resources with Institution-wide Strategic Planning]

Emerging and converging information technologies enable programs that can change the academy. It is now critical that planning for the information resources infrastructure be aligned with the strategic goals of the institution and implemented within the context of cross-functional and cross-program processes. This cooperation and focus can be accomplished when institutional executive officers share a full commitment to strategic planning by their involvement in the process and their assignment of responsibility, authority, and resources.

- How do issues related to information resources—information, technology, and services—get raised to the “boardroom” level?
- As institutions plan to pilot or adopt new programs to meet dramatically changing needs, how should they involve their information resources units in the strategic planning process?
- How can the institution appropriately assess information resources investments that are needed to support these programs?
- What are the emerging challenges to extant policies concerning access, support for end-user innovation, and the development of a cohesive information resources infrastructure across the campus?

[Reengineering Our Fundamental Business]

Much has been written about the need for higher education to become more competitive, relevant, and affordable to meet the needs of a changing society—one that is undergoing stress as it transitions to a new age of work, family, and community. Some of these changes in higher education shift the emphasis from instruction as a time- and place-bound event to one that is learner-centered and available at times and locations convenient to the “lifelong learner.” This shift in emphasis, as well as the emerging opportunities to re-examine how the business operations of the institution can be streamlined, creates new roles for information technology (IT) on campus. Information resources managers can take a leadership role in the restructuring of both the academic and administrative activities of the institution by facilitating innovation and articulating realistic visions of how IT can cost-effectively support and enhance these new processes.

- What are some of the effective strategies being employed to build the campus vision, guide and support innovation, and develop an action plan?
- What are some approaches that seem to be effective in building (and sustaining) new applications and supporting infrastructure for these evolving (and often distributed) program efforts?
- What are proven ways to initiate and implement successful business process reengineering?

[Change Management]

We are increasingly aware of the accelerated pace of change and the need for people to understand what is happening and deal with this pace in constructive ways. Another aspect of this challenge is to realize that not all changes, regardless of how technically exciting they may be, are for the good.

- What are some of the processes that are useful in assessing the impact of technological innovations on the academy and engaging people in effectively managing change?
• How does the process balance the enthusiasm with the potential reengineering of people, policy, and practice that may be necessary to sustain positive change?

**Distributed Computing Support Challenges**

Dramatic changes taking place in the computing and communications industries have created a powerful form of distributed information systems on our campuses. As the number and capacity of desktop computers increase, so does the need to support the growing number of faculty, staff, and students using distributed systems and services, along with the need to effectively manage software assets and costs. Still another major challenge of the distributed computing environment is the need for “interoperability” among connected workstations to ensure that networked resources can be shared, that collaboration among users is enhanced, that training and support costs can be minimized, and that new tools can be deployed rapidly when needed.

• When is it appropriate to adopt a distributed architecture, and what are viable transition strategies that allow campuses to introduce these systems into their operations?
• What are effective approaches in managing life-cycle costs of software over enterprise networks?
• What are the challenges to support faculty, staff, and students in this environment of multiple desktop applications, some of which are communicating with legacy systems?
• What role can central IT organizations play in facilitating greater self-support on the part of faculty, student, and staff who use distributed computing?
• What is the potential of a World Wide Web client “front end” for some applications to minimize support issues?

**Networked Information Environment**

Academic libraries traditionally have been places to collect, preserve, and access scholarly materials, while administrative computing organizations have been entrusted with administrative information systems that support the institution’s business processes. Communications and converging digital technologies are offering opportunities to provide these services in innovative ways and challenge our views of how all information services can best be provided.

• As more information resides in “digital form” on network servers, how does this re-shape the information resources boundaries of the institution?
• How do we extend the cataloguing, organizing, searching, and accessing standards and policies of the library to other campus information resources?
• What kind of policy issues does this emerging environment raise for institutions to address, and who are the key players in shaping these policies?
• How will the networked information paradigm affect scholarly publication and related concepts such as copyright and intellectual property?

**The Changing Communications Paradigm**

Many see the Internet as the beginning of the National Information Infrastructure (NII). Federal and, in many instances, state efforts now stimulate a move away from regulated monopolies and government subsidized services into a more competitive framework for telecommunications. These efforts are designed to foster innovation and will open new opportunities for campuses to acquire telephone services, provide recreational and educational television to their students, as well as obtain Internet services from an expanding and competitive marketplace.

• What are the approaches/strategies that campuses can adopt to create the necessary on-campus infrastructure for these changing (and possibly converging) telecommunications services?
• What are the issues related to linkages into the local community, state or regional, and national/global networking infrastructures?
• What role(s) can colleges and universities play in ensuring there is an affordable educational “lane” on the “information superhighway” that supports teaching and learning into the inner cities and far flung rural areas of our states?
• What roles can our institutions play in bringing the positive values of the Internet to the benefit of our communities?

**Open Systems and the IT Architecture**

One of the paradoxes in information technology is that a non-proprietary (“open systems”) architecture helps ensure interoperability among connected systems and increases competition and choice among vendors. However, many of the “breakthroughs” will not fit existing standards, and thus will emerge as proprietary products.

• How do we balance these competing interests, that is, stimulate greater adoption of open systems as well as the development of innovative new products?
• Can CAUSE take a leadership role in the adoption of standards that will serve both our
individual campus needs and the needs of higher education?
• What can CAUSE do to enhance sharing and collaboration among our member institutions in planning and evaluating novel technologies?
• Should CAUSE expand its role as a major “information repository” for applications of technology in higher education?

Network Access and Security
The increasingly critical role that desktop computers and networked applications play in our institutions has increased the level of concern about information access and security. Access and security can no longer be thought of as simply technical challenges. These are issues that must be dealt with as important contributors to the mission-critical processes of the institution. What are those processes and what are the values of the institution that influence them? Knowing that, one can identify the risks to fulfillment, determine how to measure the risks, and finally decide how the risks might be managed. Some of the ways to manage the risks include institutional policies, guidelines, standards, and education, as well as hardware/software technical safeguards. Although access and security may seem like opposing concepts, it is in fact the case that a well developed security program facilitates authorized access by eliminating unauthorized access.
• What approaches have proved successful in developing policy statements, guidelines, procedures, or standards?
• What are the free-speech and privacy policy issues regarding use of the campus network? the Internet?
• Do authorization services, authentication services, encryption, one-time passwords, and so forth provide good technical solutions?
• How can a campus balance a strategy of providing access to information against the constraints of FERPA regulations?

Diversity in Information Resources Management
Many universities and colleges are making bold efforts to improve their ability to function in the more diverse human work environment that will characterize the future, as we move ever more steadily toward a global economy. In some institutions, the information resources units are the least diverse on campus (although there are notable exceptions). CAUSE has identified working toward fostering diversity in our workplace as one of the association’s goals for the coming year. Inclusive organizations strive to create an environment that is welcoming to all people—regardless of gender, race, creed, disability, or other areas of difference.
• What are some of the barriers to achieving inclusiveness in our workplace/profession and how can we work to overcome them?
• What can CAUSE do to raise awareness about this issue in our profession?
• What are you doing on your campus to ensure that your organization is “inclusive,” and what are some of the results to date?

Call for Articles
Share your campus experiences in...
• Overcoming the Barriers to Tying Information Resources Planning to Academic Program Planning
• Successfully Reengineering Business Processes
• Developing Institutional Information Policies
• Addressing Legal and Ethical Issues on the Campus Network
• Managing World Wide Web Sites: Not Just a Technology Challenge
• Supporting/Training Users in a Distributed Computing Environment
• Implementing Standards on Your Campus
• Finding the Balance Between Network Access and Security/Privacy
• Supporting Faculty and Student Needs for Instructional Technology
• Managing the Convergence of Computing, Telephony, and Video to Deliver Education

For information on submitting articles for publication consideration, see “CAUSE/EFFECT Publication Guidelines” in the CAUSE/EFFECT folder on the CAUSE Gopher (gopher://cause-gopher.colorado.edu/) or Web server (http://cause-www.colorado.edu/), or send e-mail to Elizabeth Harris (eharris@cause.colorado.edu)