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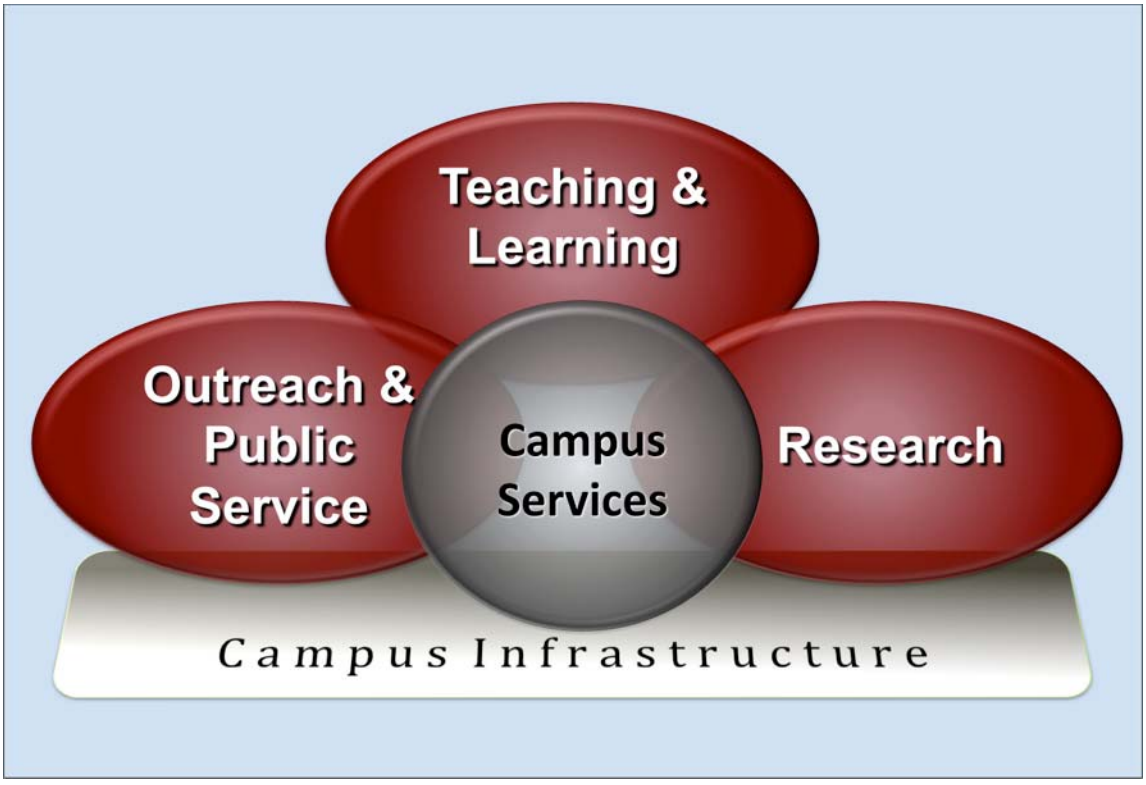
Deans Working Group Report:
Focus on Technology for Teaching and Learning

January 21, 2010

Introduction

At UW-Madison, information technology services are interwoven with teaching, learning, research, outreach, public service, campus services and infrastructure. In this report, we examine the role information technology plays with an emphasis on the teaching and learning enterprise. Subsequent reports will provide similar detail for research, outreach, public service and campus services.



Approach

We present the guiding principles, values, specific tasks and the need for a systematic business approach for moving forward in the area of teaching and learning. Many of our current practices are rooted in a valued culture of school/college and faculty independence. To move forward successfully, we need to find a new balance between that autonomy and effective investment in central infrastructure, technology and services.

Guiding Principles

Exploration of a campus-wide, systematic process and platform for collaboration and engagement is guided by the following principles.

1. Institutions of higher education are learning environments intentionally-designed to maximize student learning, wherever and whenever it occurs, and particularly student learning related to the higher-order skills and abilities that allow students to become citizens and world leaders.
2. While we recognize the value technology can add to education, we also recognize the preciousness of face-to-face interaction and its value in instruction.
3. We are committed to finding the balance between face-to-face and technology-assisted learning environments to maximize student learning and achievement.
4. We recognize this balance will vary from course to course and discipline to discipline. We will not create a one-size-fits-all approach.

Values

1. Application of technology must be learning-outcomes oriented, within the context of economic efficiency.
2. Our technology enhanced learning enterprise needs to be flexible and adaptable to different settings, learning objectives, environments, and changes in the technology landscape.
3. Teaching and learning takes place through innovative engagements in classrooms, in other collaborative spaces, and at a distance.
4. Technology efforts will support and enhance best practices in teaching (i.e., time on task, frequent feedback to students, learning-in-context, group-based learning, and a positive classroom climate) to produce high-impact educational experiences.
5. Technology, in the context of best practices and high-impact educational experience, should help all students achieve and graduate. High-impact practices, in particular, have been shown to have compensatory benefits for students who have historically underachieved in higher education.

Specific Tasks to be Undertaken

We recommend the following specific activities be undertaken to achieve the goals and objectives that were articulated by the Deans Working Group and amplified during the Leadership Council Retreat. These activities should be pursued under the guidance of specific business case scenarios with school/college leadership, faculty engagement and campus oversight.

Technology Enhanced Learning Activities

We recommend undertaking the following specific initiatives to help UW-Madison achieve new capabilities in teaching and learning.

1. Re-fund the "TEL Project" to incentivize cross-college collaboration on strategic solutions to all-campus challenges

    1.1. Implement a program that aggressively pursues delivering technology-rich teaching and learning in quantitatively-oriented, introduction and gateway courses.
    1.2. Initiate a "textbooks of the future" program.
    1.3. Implement on-line delivery of specific courses or programs as an experiment for a more comprehensive delivery strategy (e.g., business courses for non-business students).

2. Support teaching and learning with appropriate technologies and successful approaches

    2.1. Undertake specific projects to repurpose libraries and other university spaces to build new collaboration/learning spaces.
    2.2. Initiate a formal program for equipping classrooms and learning spaces with appropriate technologies. (Charter)
    2.3. Implement at least one large-scale computer-based testing facility that will serve as a model for other similar facilities. (Charter)
    2.4. Enhance and extend the existing program for research and evaluation of evolving instructional technologies. (Charter)
    2.5. Re-establish an innovation incubator for instructional technologies that emerge from the research and evaluation programs. (Charter)
    2.6. Offer a suite of instructional technologies so all instructors and support staff know what technology solutions are available to campus to address teaching and learning challenges. (Charter)

3. Support faculty and instructors

    3.1. Implement a program for easily-accessible technology support for faculty and instructors guided at the campus level and delivered at the local level. (Charter)
    3.2. Establish a program to assist faculty and instructors to develop and enhance instructional technology skills. (Charter)

4. Prepare students to work in a technology-enhanced world

    4.1. Expand the Computing@UW orientation. (Charter)
    4.2. Support interdisciplinary scholarship and global impact. (Charter)
    4.3. Implement a technology literacy program for students. (Charter)

Information Technology Infrastructure Activities

We recommend undertaking IT infrastructure investments that support teaching and learning at two levels. First, we recommend evaluating service, governance and funding-model approaches for core campus IT infrastructure, and second, undertaking the same for

enabling IT infrastructure services. Both focus on reducing unnecessary duplication while preserving school/college service development and implementation needs.

1. Core campus IT infrastructure is defined as a portfolio of IT resources and organizational capabilities that serve as the foundation upon which IT applications and services are designed, developed and sustained at the campus level. Core campus IT infrastructure "is composed of the basic technological and service building blocks of the campus". This infrastructure will serve the entire campus and will be governed under a single set of processes and procedures. Undertaking this project will release units from the need to replicate the infrastructure, provide shared capability across the campus, and remain stable over time. The primary core campus IT infrastructure components are:
    a. Data Center Services
    b. Identity and Access Management Services
    c. Information Security Services
    d. Network Services
    e. Data Storage and Retrieval Services

2. Enabling IT infrastructure is defined as a set of software, capabilities, and services that provide a common set of features, processes and procedures that can be used to enhance IT service delivery for enterprise-wide and local IT services. Enabling enterprise infrastructure leverages the core campus IT infrastructure as well as applications and services that are provided by local campus IT service units and frees local units from replicating common infrastructure services. Examples of enabling enterprise infrastructure include:
    a. Collaboration tools and services
    b. Enterprise software licensing programs
    c. Help desk services
    d. Campus portal services
    e. Classroom capture and distribution services
    f. Video conferencing services
    g. Digital measures
    h. Applications for mobile devices
    i. Digital imaging services
    j. Content management services

Summary and Next Steps

Undertaking the strategy proposed in this paper will prepare UW-Madison to better support and apply learning inside and outside the classroom to help our faculty, staff and students excel in today's global economy. We will better leverage teaching and learning infrastructure both within and beyond traditional campus boundaries and will do so guided by a sound business case for the investments.

The next step will be to establish specific priorities for initiatives to be undertaken immediately, to establish a roadmap for longer term activities and to develop business cases to justify the initiatives. Governance processes, innovative funding models, and campus-wide oversight will guide all activities.