University of Montana-Western
Technology Plan-Draft 04
Monday, April 28, 2003

Active Sections

- **Introduction**
- **Statement of Purpose**
- **Premises**
- **Definitions and Limitations**

Working Sections

- Opportunities unedited
- Agenda Items Needed but should be decided by the team…
- Summary consider placement but is heart of document (abstract ?)
- Commitment defines the mission and offerings of team?

Notes

Not included but for consideration

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Introduction

Western has a robust and comprehensive technology program: evidenced by the recent NCATE accreditation and report; by the new and fully operational Swysgood Technology Center; the completely wired campus and dorms; and by the successful Business and Technology division. Yet the acquisition of technology on campus, and its planned use has been largely ad hoc. While other institutions—business and academic—have adopted sets of overarching guidelines to direct long-run strategies, goals and possible outcomes, Western has not. This document is a directed attempt to remedy that disparity.

Rather than each department and area acting autonomously as Western continues to aggressively acquire computers and other technology, a campus with limited funding, and such an intimate family of faculty and staff will find unifying these labors advantageous for all. This document is the first iteration of this effort. The goals here are in unifying energies, combining research, increasing communication, prioritizing initiatives, while deciding on the most appropriate timing for technology adoption and implementation. The purpose is by no means to discourage any logical adoptions, nor cause a chilling effect. This document (and interaction with the Technology Team) is designed to increase communication and provide a venue for all members of the campus community to share expertise, vision, and concerns to help in unifying Western's technological evolution. Simply stated, this will outline direction and mandate technology coordination.

Statement of Purpose

This technology plan is directed at multiple audiences, and has within it an awareness of current practice and the evolution of technologies as they impact education and culture in general. This document will touch on both outcomes and the tools that facilitate these outcomes. It will necessarily be a summary in form as any one of the areas within it could be expanded intelligently to such a size as to make using, much less reading it prohibitive. Since it will adopt an outline format it should be seen as a pointer to other documents that are more detailed and specific (many in appendix), or to the standing committee on technology adoption and use, the Technology Team.

The plan must also be seen as a living document, in that the advance of technology is exponential and impacts the campus and culture in ways that are often predictable but rapid, and also in ways that may not be foreseen even months earlier. Western's technology plan then is a blueprint for transition more than a limiting boundary to change. As such, this tech plan will be revisited formally on a yearly basis by the Technology Team to identify areas of weakness, absence, or change and will be modified accordingly.

This plan also is quite intentional in spelling out the necessary tension that exists on every campus between that which we are doing; that which we can do; and that which we should do—and should do when? It is important to recognize that among the various audiences this document will inform there will be varying opinions on these topics. With this in mind, it is imperative that the university move forward in an intentional,

incremental, and coordinated fashion with the decisions that are impacted by and that impact technologies. The push and pull of the various opinions on these exciting topics is an encouraged and necessary dynamic if the institution is being progressive and is open to change. In keeping with the open-door policies in almost all decision making on campus, the Task Team will be proactive with open and inviting communication.

In order to ensure this comprehensive and informed practice this document will define terms and prescribe the proper procedure for either the adoption of new tech or the expansion of existing technologies. In terms of philosophy, it is also considered critical that all of the parties impacted by this understand that the intention of this document and the function of the Technology Team are to encourage use as it is seen as best practice in education.

There must, however, be some coordinating thesis around these decisions, for although one might argue that a certain acquisition or use is advantageous to an individual or program it is vital that large-scale decisions are also in keeping with the University's overall direction and timetable. The purpose of this plan is to encourage use, and to encourage campus-wide use. While throwing the doors open to the ubiquity of all technologies on campus might seem egalitarian, each of these decisions involves a fabric of budgets, departments, and interconnectivity. In order for the campus to take full advantage of the benefits of selected technologies, there must be an awareness of continuity and linearity; as well as considerations for infrastructure, long-term use, support and replacement with every major decision.

While it is possible that this may be seen as overstepping, it is imperative that every department recognizes that the overriding goal of this plan and the Technology Team is to consider the big picture of creating a sophisticated technological environment for our students to learn, our faculty to instruct and our staff to be productive. This document is the starting place for the discussion of all technologies as they impact the campus of Western.

10 Premises

1. Western has a commitment to its students and faculty: to their ability to learn and instruct, and in providing the proper tools that best enhance this.
2. Students will enroll with increasingly sophisticated knowledge and awareness of technology.
3. In order to be prepared for the work place or further study, students will require increasingly sophisticated knowledge of technology.
4. The campus faculty and infrastructure must also increase in technological sophistication.
5. There exists an ongoing need for increased bandwidth and an ever more efficient infrastructure.
6. The curricular adoption of meaningful technology is necessary to remain relevant in higher education.

7. For many new technologies there exists a logical sequence of adoption.
8. Any acquisition of technology systems must include a workable, realistic plan for maintenance, support, and replacement. (i.e. technology costs more than technology costs)
9. The true value placed on any resource on campus will be reflected in the amount of attention that it receives, coupled with the appropriateness of funding assigned to it.
10. There will always be a finite amount of funding and consequently there will always be a need for choosing the most advantageous use of funds for technology: the larger decisions should be made in keeping with the institution's stated priorities in an intentional fashion.

Definitions and Limitations

This technology plan refers generally to technology as those electronic items and their component parts (including software) used to assist with productivity; communication; presentation; data entry, manipulation, capture, storage; and the connectivity of these items. This includes peripherals globally but not individually (e.g., individual printers purchased by individual departments are not referred to, although batch purchases do fall under the aegis of this plan).

The goal of this section is to make the various audiences aware that a central umbrella for the acquisition and use of the included technologies exists, which may inform initial research, acquisition, and use of certain devices and applications. As so much of the campus budget and personnel/support effort goes toward technology, it is imperative that there is a unified and coordinated front to prevent redundancy, conflict, waste, and poor timing as relates to individual or departmental initiatives. For those technologies that are already existent on campus, it is equally important to have a global plan that takes into its accounting--maintenance, support, upgrades and replacement/retirement of the equipment or applications. Each of these concerns is framed by the overriding need to have a secure networked environment.

- **The Local Area Network** (LAN) that serves Western is the primary foundation to the technologies addressed in this document. The LAN (and its congress with the Internet proper) is the fundamental starting place to 90% of the discussions about technology on campus. This includes, not only the wiring, but the switches, hubs, servers and the applications that support these.

- **Telecommunications**, although under the oversight of ITS, are central to communication on campus, are an important plank in the overall infrastructure and will increasingly be driven in an IP environment.

- **IP video and teleconferencing** is a subset of the section listed above, yet because of its potential impact to bandwidth any use or planned use that includes

receiving or transmitting video and/or audio should not be done without being adopted formally into the technology plan.

- **Individual CPU's,** which are owned by the campus and are serviced and supported by ITS. Individual CPU's owned by the user which are connected to the LAN. Whether these are conventional desktop devices, laptops or laptop hybrids is not distinguished here. Any device that is plugged into the campus infrastructure is of interest to the technology plan at Western as each device has the potential of working seamlessly, or causing instability in the system.

  These break down into the following categories of use and user:

  - Student access site computers
  - Student access laboratory computers
  - Student access class-specific computers
  - Student-Owned Computers connected to the LAN
  - Faculty Office Computers
  - Faculty access lab/class lectern stations
  - Faculty-Owned Computers connected to the LAN
  - Administration computers
  - Staff office computers
  - Laptops (guests, or students with wireless conx)
  - Additional connection devices (handhelds used as CPU's…)

- **Networked Peripherals** including group-use printers, copiers, and scanners are fundamental to the day-in-and-out operation of any institution. It is important that these are purchased and maintained in keeping with the guidelines set out herein.

- **Peripherals** including printers and scanners fall outside the main focus of the technology plan individually, but as a group do impact the resources of the campus insofar as consumables are best purchased in bulk and the maintenance/replacement/retirement considerations should be in keeping with the overall campus policies.

- **Presentation** equipment such as video projectors, and touch-sensitive boards, presentation-specific monitors and stations are important and often expensive components to the higher ed landscape and must be part of the larger plan in terms of purchasing uniformity, service and replacement schedules.

- **Miscellaneous** equipment includes digital capture devices including still and video, as well as audio/video and broadband players. This includes the myriad technologies that students will be expecting to use in keeping with their educational as well as personal/cultural exploration of the web. The policies related to this type of use must be progressive, realistic, deliberate and discriminating. (*This section should not be seen as the equivalent of an etcetera appended to a list where the important items already have been addressed. The technology plan must be intentionally cognizant of changes that are driving purchases and use, and it is likely that the*

things that are the newest and the least planned for are the very things that will be of most concern to this campus' technology plan.)

Limitations of this plan necessarily preclude its addressing academics specifically. While it is prudent that the technology plan combines research, and efforts on a budgetary and technical level it is not the mission of this team to enter into the standards and continuity of Western's academic use of technology. The technology plan and the actions it recommends are provided as a support to the unified academic adoption of these same technologies. In short the technology plan is a plank to further academics not the other way around.

- **Non-digital Presentation** equipment such as slide & film projectors and VCR's and overheads are not addressed by this document.

Agenda

The Technology Plan for Western prescribes a sequence for the large-scale adoptions, transitions and transformations. The action items include shifts in infrastructure, service, program/use, protocol, application, methodology, and hardware. A summary of the landmark adoptions to date is in the appendix.

- Current items under consideration include:
- Implementation plan for WebCT
- Disk Quota Policy
- Long-range plan for Metnet
- Wireless Technology Implementation
- Coordination of Grant/Budget issues
- Transition from Task force to standing Committee
- Solutions to the Printer/Copier Issues
- Network Security issues
- Acceptable Use Issues

Summary

Western is too small not to have coordination of all technology efforts campus-wide, regardless of budget, department, and intention. This document serves as the first stop for all decision makers on campus if they have a technology component to their efforts. Coordination of these academic or administrative efforts is critical and must involve the technology team.

Commitment

This plan's central purpose is to coordinate the disparate technology efforts and initiatives campus-wide. It is by nature a document aimed at creating a relay team from a group who have already begun their race.

Since the many technological efforts must be coordinated at some level to be effective in the broader context of the campus, rather than *by department*, this plan requests a larger commitment from the departments and divisions to bring new plans, purchases and problems to the technology group newly formed on campus.

There will be a timely discussion and recommendation made on all topics brought before the Technology Team.

Discussion of all possible uses of technology, whether standard or outside-of-the-box, are actively encouraged.

The only way for the institution to move forward in a progressive fashion is to solicit current information on technologies generally and by domain from faculty, staff and administration. Translated, this means that there will be some intentional effort to combine institutional knowledge and research on the areas mentioned in the definitions section.

The technology committee encourages team-based decision making.

All campus properties belong to the University of Montana Western, not individuals, individual departments, grant coordinators, or employees thereon.

It is the business of the university to best direct its purchases in a uniform, effective and progressive fashion.

This is aimed at addressing the items listed in the definitions section, and/or those items that are "networked." A rule of thumb is that: anything big and pricey (over $500.00); or anything that is pat of a larger shift in use (wireless Palm Pilots); or anything that has significant impact on program (new distance ed application); or that will require significant support (GIS software) should be brought to the committee in advance of purchase

Notes

We must provide some timelines for band width
Wireless
Etc… or what will we fit these suggestions into?
Plans are to direct future decisions and to coordinate the current use and support…
Needed addenda:

- *Time frame*
- *Philosophy*
- *Protocols*
- *Regents Info*
- *Disk Quota Policy*
- *Acceptable Use*
- *Web Policies… and policies on web*
- *Computer Use Policy*
- *Student Handbook*
- *Personnel Info?*
- *Purchasing Policies*

What of security issues
What trade off for levels of insecurity?

What needs get addressed and why?

Reference user-friendly environments

Still needs timeline
Revisit web policy
Philosophy included or needed?

Reference to professional development?

List audiences?
List budgets?
List who can help…
One stop shopping.
Academic commitments need to be written out
Community interface should also be expressed

Perhaps a statement of priorities or commitments

Intentional budget strategies listed

- *Greatest need*
- *Greatest impact/student, faculty, admin…*
- *Cost effective need*
- *Cost recovery possibility*
- *Longstanding need*
- *Most obvious fix*
- *Most neglected department*
- *Creative fix*
- *Most Fashionable*

Are decisions consistently

- *team driven*
- *or leadership driven*
- *or crisis driven*