Milwaukee Area Technical College

Academic Technology Plan

Appropriate technology for effective learning

February 12, 2009

MATC

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Executive Summary

"Make no little plans; they have no magic to stir the blood."

Daniel Burnham

Daniel Burnham was a world-class architect whose statement has come to represent the importance of planning to organizations of all types, including educational institutions. Technology planning for Milwaukee Area Technical College is a function of the college's Academic Technology Committee. The committee's Academic Technology Plan is certainly no "little plan." It was developed based on a compelling vision to meet the learning needs of students through the use of appropriate academic technology.

The MATC Academic Technology Plan is based on a vision and philosophy that echoes the college's vision and philosophy. It emphasizes the commitment to provide world-class learning and teaching environments for MATC students, faculty, staff and administrators.

The Academic Technology Plan recognizes the need for a culture change related to the appropriate and ethical integration of technology into the learning and teaching process. Fundamental to the plan are 10 pillars that direct its focus:

1. Allow academic and administrative technology needs to be aligned with other college priorities.
2. Permit the development of instructional and learning strategies that involve academic technology.
3. Guide the efforts of technology professionals.
4. Support the academic technology needs of faculty and staff.
5. Engage students and support faculty to promote learning and teaching.
6. Permit flexible on- and off-campus learning and teaching opportunities.
7. Provide a stimulating learning and teaching environment.
8. Provide widely available access to resources for students, faculty and staff.
9. Promote MATC within the community.
10. Provide a secure information and instructional technology environment.

Derived from these 10 pillars are seven goal statements of the Technology Plan. Goals are clarified by objectives and strategies. The plan's seven goals are:

Goal I: Support learning and teaching.
Goal II: Support students.
Goal III: Support faculty, staff and administration.
Goal IV: Provide adequate hardware and software.
Goal V: Utilize appropriate communication and content management.
Goal VI: Develop adequate infrastructure, network and security.
Goal VII: Utilize continuous review and alignment.

The Technology Plan is kept current through a diversified implementation approach. At the center of the Plan's development, implementation and evaluation process is the Academic Technology committee. This committee has responsibility for the Plan. The Plan also advocates the development of local unit and department technology committees to promote local planning and implementation.

The MATC Academic Technology Plan has a number of action items to be considered by the Academic Technology Committee:

A. Establish subcommittees and workgroups of the Academic Technology Committee to support the implementation of the Academic Technology Plan.
B. Develop recommended technology competencies for faculty, staff and administrators.
C. Identify a recommended faculty-office hardware and software technology suite.
D. Develop a recommended standard classroom environment/configuration conducive to learning.
E. Request departmental and division technology plans.
F. Review staffing and organizational structure and make recommendation to enable implementation of Academic Technology Plan.
G. Develop a standardized methodology for managing large projects.
H. Strategically address the cross-functional needs of web services.
I. Increase bandwidth to meet the needs of the Academic Technology Plan.
J. Establish a technology training group for faculty and staff.
K. Create procedures for the delivery of blended courses at MATC.

This document is designed to serve as a blueprint for the successful and ongoing integration of technology for learning and teaching. The plan is dynamic, evolving and designed to spur imagination and possibility. The Academic Technology Committee and AT Plan work group approved the plan by consensus on February 12, 2009.

MATC Academic Technology Plan

I. Vision

Milwaukee Area Technical College is committed to being a world-class educational institution that emphasizes the appropriate use of academic, administrative, and information technologies that empower students, faculty, and administration to realize their potential. MATC is committed to providing modern learning environments, made possible through the widespread availability of appropriate technologies.

II. Philosophy

Technology planning is an ongoing, dynamic process based on the regular input of information about changing educational environments. Technology planning consists of at least two observable activities. First and most important, it is an ongoing planning process, a primary activity of the Academic Technology Committee. Second and most obvious, it is the development, implementation, evaluation, localization and revision of a planning document.

III. Milwaukee Area Technical College Description

Milwaukee Area Technical College (MATC) was founded in 1912. In 1969, metro Milwaukee's vocational schools merged to become Milwaukee Area Technical College. MATC serves about 48,000 students per year, the majority attending part-time. Full-time equivalent enrollments total about 13,400. MATC offers 200 degree, diploma, certificate and apprentice programs. Four comprehensive campuses are located in Downtown Milwaukee, Mequon, Oak Creek and West Allis.

The median student age is 28 with a 52% to 48% female-to-male student ratio. Significant numbers of MATC students are African-American (26%), Hispanic (13%) and Asian-American (4%). The college has a budget of approximately $290 million and employs about 2,300 full- and part-time faculty and staff.

IV. Pillars of the MATC Technology Plan

This Technology Plan is based on the philosophy of culture change that is founded on the appropriate and ethical integration of academic technologies that improve the learning and teaching environment. Culture change will be a process involving students, faculty, staff, administration and external stakeholders. The audiences for the Technology Plan are the Academic Technology Committee, the college community and the MATC District. The culture change process begins with 10 pillars, the foundation of the Technology Plan.

The plan will:

1. Allow academic and administrative technology needs to be aligned with other college priorities.
2. Permit the development of instructional and learning strategies that involve academic technology.
3. Guide the efforts of technology professionals.
4. Support the academic technology needs of faculty and staff.
5. Engage students and support faculty to promote learning and teaching.
6. Permit flexible on- and off-campus learning and teaching opportunities.
7. Provide a stimulating learning and teaching environment.
8. Provide ready access to resources for students, faculty and staff.
9. Promote MATC within the community.
10. Provide a secure information and instructional technology environment.

V. Definition of Educational/Instructional/Academic Technology

Instructional technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources.

Technology, instructional technology, educational technology and academic technology will be used interchangeably when referring to technology for learning and teaching.

Information technology will be used when referring to the technological tools used for management, administrative and non-educational communication.

VI. Technology Plan Goals

Seven goals provide the framework for the MATC Technology Plan. These goals flow from the desire for culture change, and from the vision, philosophy and 10 pillars at the core of the plan. Unless otherwise specified in this plan, the MATC Academic Technology Committee is responsible for:

- Championing the intent of the seven goals
- Monitoring progress related to the plan's strategies
- Assessing and evaluating the impact of the plan
- Collecting information from individuals and college units related to the goals, objectives and strategies of the plan
- Revising and updating the plan, as needed.

Goal I: **Support Learning and Teaching**.

Provide the highest quality teaching and learning environments through the efficient and creative use of appropriate instructional technologies.

To accomplish this goal, it is recognized that a successful, sustainable and high-quality institutional approach to learning and teaching with technology is based on clear objectives and strategies. Objectives that support this goal are based on the following assumptions:

- Alignment with MATC mission and goals
- Awareness and engagement of students and administration
- Provision of adequate resources
- Development of modern infrastructure
- Concern for faculty development
- Recognition of appropriate standards and policies
- Attention to comprehensive evaluation strategies

Objectives and Strategies:

1. Evaluate the use and effectiveness of technologies for teaching, learning and administration.

    1a. Develop an annual survey for students and employees regarding technology use and needs.

    1b. Develop approaches that measure on an annual basis the amount and effectiveness of technologies used for learning and teaching, and use data from these approaches to evaluate technology practices.

    1c. Set priorities for allocation of funds for technology support and training resources based on the results of data collection.

    1d. Create and support a Teaching and Learning Technology Data Committee that is responsible for collecting, analyzing and reporting data. This committee will report to the Academic Technology Committee.

2. Evaluate and test new technologies for learning and teaching.

    2a. Develop an environment for faculty and staff to examine and evaluate new technologies for potential integration into learning, teaching and administrative environments.

    2b. Develop a process to support faculty and staff who investigate emerging technologies.

    2c. Periodically survey MATC faculty, staff, administration and students to identify new approaches and technologies for teaching, learning, and administration.

2d. Evaluate data collected regarding new technologies identified by the MATC community.

2e. Utilize expert resources such as the annual Horizon Report (http://www.educause.edu/ir/library, pdf/(csd5320.pdf) to establish the framework for evaluating and testing new technologies.

2f. Identify and support a community of early adopters of technologies for learning, teaching and administration.

3. Benchmark technology-based teaching and learning strategies.

3a. Develop a process that identifies benchmarks and identifies best-practices for technology use.

3b. Develop a plan for program advisory committees to identify and share technology-based best-practices.

3c. Maintain professional affiliations with organizations that promote appropriate technology integration (e.g. Educause, League for Innovation, New Media Consortium).

3d. Create a *Learning and Teaching with Technology Benchmark* committee reporting to the Academic Technology Committee to oversee the benchmarking process.

4. Implement approaches for distributing media assets for learning and teaching.

4a. Create a searchable digital repository for collecting and sharing digital media content.

4b. Maintain an active partnership with MPTV to share expertise between MPTV and MATC.

5. Create technology-rich and efficient learning spaces that are student friendly.

5a. Create a plan for multimedia learning spaces that are based on standard configurations of spaces and technologies.

5b. Review regularly the physical environment and infrastructure that supports learning and teaching.

5c. Create a Learning Spaces committee, reporting to the Academic Technology committee, which develops and supports the continued development of technology-rich and efficient learning spaces.

6. Provide flexible options for technology-rich learning and teaching that supports increased enrollment and improved retention.

    6a. Expand high-quality learning opportunities, including alternative delivery approaches to meet student needs, anytime and anyplace.

    6b. Develop and support innovative uses of technology including simulations, games, virtual worlds and social networking systems.

    6c. Support student and faculty technology needs both on- and off-campus.

    6d. Create standards based on best practices for online and blended learning environments.

    6e. Create a plan and process to improve and expand online learning.

    6f. Create an Enrollment and Retention Teaching and Learning Committee that is responsible for the oversight of this area. This committee will report to the Academic Technology Committee.

Goal II: Support Students.

The Technology Plan will promote student and community pathways for success.

Objectives and Strategies:

1. Promote student engagement through the appropriate use of instructional technology.

    1a. Assess the MATC student body concerning their use of and need for various communications technologies.

    1b. Determine how to make the MATC experience appropriate for students using innovative technologies.

    1c. Provide access to and support for student technology.

2. Build a consistent and unified technology support organization for students.

    2a. Create a user-friendly, widely available technology support map.

    2b. Promote a culture change related to the appropriate use of technology.

    2c. Build a student technology support organization that grows as needs increase.

    2d. Provide on-demand support for students, with the goal of 24/7 support.

Goal III: Support Faculty, Staff and Administration.

Provide faculty, staff and administration with just-in-time assistance, ongoing development, and instructional design support for instruction and information technologies.

Objectives and Strategies:

1. Provide consistent technology support for faculty and staff.

    1a. Create a user-friendly support map available in a variety of formats and delivered via various communications devices.

    1b. Provide personal real-time support for all technologies.

    1c. Log and track technology support requests.

    1d. Develop a system for disseminating frequently asked questions (FAQs).

    1e. Review on a periodic schedule the support provided to faculty, staff and administration and upgrade support based on data.

2. Provide development opportunities to increase faculty and staff awareness, knowledge and skills in all college-adopted technologies.

    2a. Develop college-wide, recommended technology competency standards and rubrics for faculty, staff and administrators.

    2b. Include an assessment of technology standards as part of employee evaluation and collect information yearly on employee competencies related to the college performance standards.

    2c. Utilize technology performance data to develop a staff development system.

    2d. Link professional development related to technology competencies to employee evaluation.

    2e. Institute a data-driven technology consulting program across the college that includes mentoring and social networking.

    2f. Offer and promote professional development opportunities for all employees.

3. Develop procedures for adopting new technologies for learning and teaching.

    3a. Provide a link on the support map to the process for adopting new technologies.

3b. Conduct seminars and discussions, live and online, related to new technologies for learning and teaching.

3c. Support the investigation of new technologies, including staff development.

4. Promote the establishment of a culture of self-investigation and review related to the adoption and integration of technology into the learning and teaching process.

4a. Provide an annual review of the state of faculty and staff development in relation to technology to the academic technology committee.

4b. Establish an ongoing culture of review within faculty and staff support professional development that is a comprehensive review of best practices.

4c. Review the status of faculty and staff development and utilize this information for the ongoing process of improved performance to reward appropriate technology use.

Goal IV: **Provide Adequate Hardware and Software**.

Provide appropriate instructional technology equipment and software to support quality student learning and appropriate and effective faculty teaching.

Objectives and Strategies:

1. Develop and use a standard configuration of hardware and software for teaching and learning spaces that is annually analyzed and upgraded on a regular schedule.

1a. Select and make available a standard hardware and software "suite" for faculty and staff; support this standard configuration; regularly upgrade this standard configuration.

1b. Obtain from faculty and staff personalized technology needs, review these needs, and include them in technology acquisition plans.

2. Promote understanding of the technology needs of the college community, and the necessity for continuous review and revision of technology resources and support.

2a. Explore various hardware configurations (e.g. laptops) to meet faculty, staff and administrator needs.

2b. Support technology needs for non-uniform learning and teaching situations, such as workshops, laboratories, work-at-home and other unique situations.

2c. Maintain modern systems for communication using technology of a variety of types.

Goal V: **Utilize Appropriate Communication and Content Management**.

Provide appropriate internal and external communication, collaboration, and content management technologies for engagement, connection, and the building of social communities, including the development of a strategic web presence that reflects the college's vision and mission.

Objectives and Strategies:

1. Re-engineer the matc.edu web presence on a regular, systematic basis.

   1a. Utilize content management tools that provide version management.

   1b. Investigate new communication tools and how they interact with the website.

   1c. Renovate the recruitment and application process.

   1d. Establish the use of media presentations for promoting educational opportunities.

   1e. Protect media publicly presented.

   1f. Effectively market MATC opportunities.

   1g. Engage the local community.

2. Provide capabilities for reuse, importing, managing, searching and sharing of content within the institution, with other academic institutions, and with community partners.

   2a. Utilize an intranet for business process improvement.

   2b. Implement extranet services for alumni, advisory members and community partners.

   2c. Create a content management repository.

   2d. Develop learning objects and curricula in repository.

   2e. Establish appropriate access roles for for faculty, students and other stakeholders.

   2f. Finalize standard processes and formats for storing, discovery, sharing and reuse of information.

3. Maintain modern communication systems for use by students, faculty and staff.

3a. Expand on a regular basis the electronic communications tools available to MATC students and employees, including off-campus, remote communication needs.
3b. Ensure that communication systems are accessible, reliable and secure.

3c. Migrate communication to a paperless system, when and where appropriate.

3d. Support the mobile communication needs of students and employees.

3e. Provide technology-based meeting and collaboration systems.

4. Provide modern, second-generation (Web 2.0) services to the college community.

4a. Provide training and support for Web 2.0 systems/social networking systems.

4b. Encourage the use of innovative technology applications that can be accessed over the web.

5. Develop a next-generation digital library system

5a. Develop a digital content library system and incorporate this system with the current library.

5b. Provide virtual, online library support systems.

5c. Support student and faculty use of the digital library system.

Goal VI: **Develop Adequate Infrastructure, Network and Security.**

Provide a reliable, flexible and secure high-speed network infrastructure that supports the expanding use of instructional and information technologies, internally and externally.

Objectives and Strategies:

1. Establish technology standards that meet the needs of MATC users.

1a. Provide standard technology options for students and employees; computer-based and media technologies.

1b. Provide modern, high-speed and regularly updated wired and wireless connectivity.

1c. Arrange for seamless connectivity between technology systems.

1d. Support traditional, computer, and alternative technologies in addition to those in the standard configuration.

1e. Adequately support non-computer and computer-based technologies.

1f. Increase infrastructure support for distance education.

2. Maintain and upgrade the existing infrastructure.

   2a. Identify and upgrade aging infrastructure, according to a pre-determined replacement plan.

   2b. Support hardware and software upgrades on a regular schedule.

   2c. Provide for reliable infrastructure availability.

   2d. Develop and support comprehensive plans for infrastructure upgrading and expansion.

   2e. Develop plans for periodic “bandwidth” expansion.

   3f. Institute service-based networking

3. Establish standard procedures for technology acquisition and support.

   3a. Create a standardization of infrastructure systems to maximize reliability, enhance maintenance and improve support.

   3b. Develop a centralized review of technologies and their purchase.

   3c. Conduct a formal review of plans for technology innovation and expansion to provide for adequate support.

4. Consolidate islands of applications.

   4a. Explore server-based/thin-client applications.

   4b. Investigate innovative approaches for infrastructure support such as “cloud” computing and virtual desktops.

5. Implement practices that are sustainable

   5a. Explore procedures to reduce energy requirements.

   5b. Provide a system of seamless redundancy and disaster recovery.

6. Create technology/computing policies and procedures.

6a. Develop acceptable-practice procedures for college technology use.

6b. Develop and publicize college e-mail and Internet usage procedures that limit college liability but provide for a high level of academic freedom.

Goal VII: **Utilize Continuous Review and Alignment**.

Provide for the regular evaluation, review and modification of technology needs and plans to support the college's vision and mission and the Academic Technology Plan.

It is intended that the Academic Technology Committee will assist departments and divisions in the development of local technology plans. The Academic Technology Committee will review local technology plans, review technology requests and relate requests to the local plan. The Academic Technology Committee will make recommendations about technology plans and requests using the College Academic Technology Plan as a blueprint for a unified and systematic approach to technology planning and funding.

Objectives and Strategies:

1. Review MATC's management and support staff infrastructure for technology systems

   1a. Establish clear lines of reporting for technology management and control.

   1b. Centralize an emergency communications network and a technology recovery plan.

   1c. Provide adequate support staff to meet the requirements of the technology plan.

   1d. Provide awareness for project management as process improvement.

2. Evaluate technologies and technology infrastructure

   2a. Ensure technology is in alignment with Academic Technology Plan.

   2b. Implement procedures to maximize the return-on-investment for academic and informational technologies.

   2c. Ensure that college technology use is compliant with regulations, laws, and licenses.

3. Establish a technology plan review process

   3a. Institute a technology plan process for all divisions.

   3b. Establish a technology plan review process for the Academic Technology Committee.

I. Approach

The college-wide technology plan will promote and support the integration of academic technology into the learning and teaching process. This plan will be shared with and discussed by faculty, students, staff and administrators. The Academic Technology Committee is responsible for the dissemination and explanation of the MATC Technology Plan.

Each program, department, unit, and section annually will prepare a local technology request, based on a local plan and the guidelines provided in the college plan. Units with college-wide responsibilities will develop requests that reflect their missions. Units with more localized missions will prepare requests that are appropriate for them.

Divisional/Departmental developed requests will guide technology integration activities and are shared with and reviewed by the Academic Technology Committee. Once reviewed, local requests will be advocated by the committee.

Each year local units determine their technology status and modify their local technology requests according to their local plan. This information is submitted to the Academic Technology Committee in a data sharing, information collection, review, and budget advocacy process. Local plans are prioritized and forwarded to the appropriate administrative office for consideration.

The Technology Plan is designed to be modified periodically based on input from local units and college-wide evaluation activities. Benchmarks guide local technology integration activities and are used to evaluate the college-wide plan. Progress toward benchmarks is regularly reported. At least once every three years an evaluation of the impact of the technology plan is conducted.

II. Summary

The Academic Technology Committee is responsible for the content of this report, and is the advisory body that monitors and advocates for the implementation of the objectives of the plan. The committee is committed to the appropriate use of academic, administrative and information technologies that empower students, faculty and administrators to realize their potential. The plan is a stakeholder-based approach to promote the development of modern learning environments that are made possible through the widespread availability of technologies of learning, teaching, administration and communication.

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Appendix I. Development of the Technology Plan

The Milwaukee Area Technical College Technology Plan was developed in 2008 by the Academic Technology Committee (ATC). The members of the ATC are responsible for it.

Two formal assessment strategies were used early in the process of developing the Technology Plan.

- Faculty focus groups: Two videoconferences were held in October 2008. Faculty members from the four MATC campuses were invited to participate to share the opinions about technology at MATC.

- Faculty/Staff Survey: The ATC developed an extensive online survey. MATC faculty, staff and administration were invited to complete this anonymous survey.

- Student Survey: An extensive online survey was developed by the ATC. MATC students were invited to complete this anonymous survey.

Results obtained from these three assessment activities were used to guide the development of the Technology Plan and to support the contents of the plan. Periodic focus groups and surveys will be held in the future to align the Technology Plan to changes in learning, teaching and administrative needs, and align with college priorities.

2008-2009 Academic Technology Committee

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Appendix II. Key Findings MATC Faculty/Staff Survey of Instructional Technology, 2009

February 12, 2009

The Academic Technology Committee of Milwaukee Area Technical College, under the direction of the Provost, was charged with developing a comprehensive Academic Technology Plan for the college. As part of the development of the Academic Technology Plan, a faculty/staff instructional technology survey was administered electronically to all faculty/staff in November 2008. The survey was made available via multiple e-mail announcements. The survey administered to MATC faculty/staff is a replicated survey of the University of Washington, Educational Technology Survey, 2005.

Technological advances are significantly changing and shaping our world. MATC faculty/staff, who are the focus of this study, perceive technology's persistence in their work and classroom (face to face and virtual). The ultimate aim of this survey is to improve teaching and learning at MATC by: 1) contributing to a college-wide conversation about the uses of educational technology, 2) increasing faculty/staff awareness of the ways in which technology can be used in the service of teaching and learning, 3) facilitating informed decision-making regarding allocation of college resources, and 4) informing the design of tools and services that capitalize on successes, meet challenges, and best serve the MATC needs and desires.

Instructional technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources. (Association for Educational Communications Technology, 2008)

Technology, instructional technology, educational technology, and academic technology will be used interchangeably when referring to technology for learning and teaching.

MATC Faculty/Staff Respondent Demographics

- 376 faculty/staff completed the survey
- 41.8% are full-time faculty
- 29.5% are staff
- 14.4% are adjunct faculty
- 10.1% are paraprofessional
- 7.4% are administration
- 63% primarily work at the Downtown Milwaukee Campus
- 13% primarily work at the Oak Creek Campus
- 12.2% primarily work at the Mequon Campus
- 9.0% primarily work at the West Allis Campus

MATC Faculty/Staff Ownership and Access

- 75.2% own an MATC-issued desktop computer
- 25% of faculty respondents share an office computer with others
- 55.7% have a laptop
- 21.8% have an MATC-issued laptop
- 58.8% of those respondents who have a laptop have wireless access.

MATC Faculty Technology Use

- 48.6% of faculty never or almost never bring a laptop to class
- 27.6% of faculty sometimes bring a laptop to class
- 35.5% would sometimes bring a laptop to class if more classrooms had Internet connections
- 25.3% always or almost always would sometimes bring a laptop to class if more classrooms had Internet connections
- 40.8% of faculty/staff rate their current expertise as a computer user as intermediate
- 40.5% of faculty/staff rate their current expertise as a computer user as advanced
- 11.4% of faculty/staff rate their current expertise as a computer user as expert

MATC Faculty/Staff Technology Skills

- 40.9% have advanced ability to use a computer to communicate with others
- 39% have advanced ability to critically evaluate information from the Internet
- 38% have never tried to create a web site
- 37.3% have advanced skills to use a computer to find scholarly information and resources
- 37.1% have advanced skills to use a word processor to create documents with text and illustrations

Information Technology in Courses

Faculty members teach using the following methods:

- 77.4%, traditional classroom instruction with computer and data projector
- 64.7%, traditional classroom instruction
- 56.3%, face-to-face with Blackboard
- 48.4%, online
- 5.3%, using interactive television

During a typical semester, faculty use the following electronic devices, applications, or services to support instruction

- 84.2% never use a cell phone for web browsing
- 75.4% use a desktop computer every day
- 75.5% never use a digital assistant (Palm, PocketPC, Blackberry)

- 70.2% use word processing software every day
- 38.2% do not use online discussion boards

Faculty members have the following available for their online courses:

- 50.5% course syllabi extremely important
- 36.8% quizzes or surveys extremely important
- 36.4% problem sets or exercises very important
- 33.9% links to discipline-related sites very important
- 37.0% area to share files somewhat important

Faculty Use of Blackboard Course Management System:

- 49.2% use Blackboard for online courses
- 64.6% use Blackboard for traditional classroom
- 73.0% have completed one or more Blackboard training sessions

What faculty members believe about educational technologies at MATC:

- 53.9% agree students should be informed of the technologies required in each course
- 49.4% agree all incoming faculty should be required to take a course designed to build basic technology skills
- 46.6% agree that faculty should be provided more opportunities to use technology in their instruction
- 44.3% agree MATC should provide students with guidance in building online portfolios of their work and accomplishments
- 40.7% agree MATC should encourage instructors to use web-based tools for student discussion and collaboration

What faculty members perceive about their use of educational technology

- 59.4% never or almost never use technology in their courses because it is too complicated to incorporate
- 58.5% always or almost always can easily get access to a computer when they need it
- 53.5% never or almost never use technology in their courses because it is too time-consuming to incorporate
- 49.7% sometimes, when students enter their course, have adequate skills to use the required technology
- 43.4% always or almost always are comfortable learning to use the educational technologies needed for teaching
- 38% / 36.3% always or almost always believe that their use of educational technology improves their students learning

What educational technologies faculty members believe have an impact on their personal teaching experience in a traditional seminar-style classroom:

- 91.2% indicate a computer with projection enhances their teaching experience
- 79.4% indicate a TV with VCR/DVD enhances their teaching experience
- 70.4% indicate an overhead projector enhances their teaching experience
- 62.8% indicate an electronic white board enhances their teaching experience
- 61.5% indicate a desktop workstation for each student enhances their teaching experience

Faculty/Staff perception of the MATC Help Desk

- 63.7% agree/27.3% strongly agree they know how to request help with technological problems
- 56.4% agree/32.4% strongly agree the Help Desk notifies the MATC community about planned network outages or other technology-related issues in a timely manner
- 54.3% agree/16.8% strongly agree the Help Desk responds in a timely manner to requests for assistance during regular business hours
- 54.0% agree/15.2% strongly agree the quality of assistance provided by the Help Desk during regular business hours is adequate to resolve problems
- 45.5% agree/11.5% strongly agree the Help desk resolves network, telephone, and network-related problems in a timely manner
- 20.1% agree the quality of assistance provided by the Help Desk during evening hours is adequate to resolve problems
- 22.7% agree the Help Desk responds in a timely manner to requests for assistance during evening hours

Faculty perceptions of the MATC Teaching and Learning Technology Department:

- 37.1% strongly agree that they have used one of the campus Faculty Resource Centers in the past, and the services they provide met their needs
- 19.9% agree the Teaching and Learning Technology Department responds in a timely manner to requests and assistance during regular business hours
- 18.4% agree the quality of assistance provided by the Teaching and Learning Technology Department during regular business hours is adequate to resolve problems.

Faculty/Staff perceptions of MATC web products/resources

- 45.7% agree that matc.edu is useful
- 44.5% agree ematc is useful
- 40.6% agree INFOnline provides “user friendly” functionality for roster viewing
- 36.9% agree INFOnline provides “user friendly” functionality for grading
- 28.1% agree INFOnline provides “user friendly” functionality for leave plan viewing

Appendix III. Key Findings: MATC Study of Student Information Technology, 2009

February 10, 2009

The MATC Academic Technology Committee, under the direction of the Provost, was charged with developing a comprehensive Academic Technology Plan for the college. As part of the development of the Academic Technology Plan, a student information technology survey was administered electronically to all enrolled students during December 2008. The survey was made available via e-mail and was also made available on the MATC Blackboard home page for three weeks. The survey administered to MATC students is a replicated survey of the Educause Center for Applied Research (ECAR) Study of Undergraduate Students and Information Technology, 2007.

Technological advances are significantly changing and shaping our world. MATC students, who are the focus of this study, perceive technology's persistence in their lives. These students, many of whom have never known a world without personal access to information technologies, often take them for granted and integrate them seamlessly into their daily lives. These technologies also represent an opportunity for making changes in higher education academic instruction. How can MATC fully embrace the possibilities they present? To begin this exploration, an understanding of MATC ownership of, use of, and experiences with information technologies can provide needed insights (ECAR, 2007).

For the purposes of this survey, information technology refers to "personal electronic devices such as laptops and handheld computers, smart phones, and MATC's computers and associated devices."

Survey Respondent Demographics

- 874 students completed the survey
- 81.5% of the respondents are female
- The age range of the respondents is 20 to 30 years
- 83.0% of the respondents are pursuing an associate degree
- 53.0% are part-time students
- 24.4% are third-semester students
- 20% are first-semester students or attended more than five semesters respectively
- 46.9% attend the Downtown Milwaukee Campus

MATC Student Technology Ownership and Access

- 80% own a computer
- 55% own a laptop
- 78% own a simple cell phone (without web access)
- 20% own a smart phone (combination cell phone/pda)
- 71% connect to the Internet using wired or wireless broadband

MATC Student Technology Use

- 57% access MATC e-mail account daily or several times per week
- All students reported spending 10 hours per week doing online activities for school and work recreation
- 94% access Blackboard for courses
- 99.4% use e-mail
- 94.8% write documents for coursework using word processing software
- 70% access library resources on the website
- 65% create electronic graphics
- 62% create, read and send instant messages
- 62% play computer games
- 62% download web-based music or video
- 24% create audio/video
- 23% blog online
- 19% create web pages

MATC Student Technology Skills

Students were asked to rate their technology skills for various applications as poor, fair, good, very good or excellent. They are most confident about their skills with the Blackboard Course Management System with an average rating of "excellent." They report "good" skills with spreadsheets, presentation software (PowerPoint), online library resources, and computer maintenance (downloading software, installing additional memory, organizing files, etc.).Only 31 percent agree or strongly agree that MATC needs to give them more training on the information technology that they are required to use in their courses. Almost 13 percent consider themselves early adopters of technology, 42.5 percent consider themselves mainstream users and 16.3 percent consider themselves late adopters.

Information Technology in Courses

Students expressed a preference for use of information technology in their courses

- 54.7% indicated a moderate level of information technology
- 23.6% indicated to have information technology extensively
- 13.5 % indicated limited information technology

Most Used Technology in Courses

- 90.1% use e-mail
- 55.5% use a course web site
- 51.8% use presentation software

Least Used Technology In Courses

- 4.7% use podcasts
- 5.9% use e-portfolios
- 6.8% use webcast

Use of Blackboard Course Management System

- 82.5% indicated taking a course at MATC that used Blackboard
- 45.7% describe a positive overall experience using Blackboard
- 40.4% describe a very positive overall experience using Blackboard
- 0.3% describe a very negative overall experience using Blackboard

Most Useful Features Used in Blackboard
(mean between very useful and extremely useful)

- Keeping track of grades online
- Expressed taking exams and quizzes online for grading purposes
- Expressed turning assignments in online

Benefits of Using Technology

- 48.0% agree that overall, instructors use information well in their courses
- 43.8% identified convenience
- 22.2% identified help in managing course activities
- 22.0% identified improved learning
- 3.9% identified no benefits

Information Technology Impact on the Academic Experience

- 46.1% agree/22.3% strongly agree that the use of information technology helps with research for courses over courses that do not use technology
- 43.7 agree/18.2% strongly agree that the use of information technology allows greater control of course activities over courses that do not use technology
- 41.5 agree/17.6% strongly agree that the use of information technology results in more prompt feedback from instructors over courses that do not use technology

Appendix IV. Academic Technology Committee Focus Group Report

On October 7, 2008, two one-hour focus groups were conducted. These focus groups were moderated by Michael Simonson. Four locations, one at each MATC campus, were connected by videoconference to the moderator located at Nova Southeastern University in Fort Lauderdale, Florida.

During the first session approximately 15 faculty, staff and administrators from MATC participated and 10 attended the second session.

The following agenda was used for both sessions. Both groups were provided an explanation of the purpose of the session and the concept of the focus group was defined.

Focus Group — a focus group is a planned discussion designed to obtain perceptions on a defined area of interest in a non-threatening environment. The intent is to share ideas and perceptions.

Next, the moderator explained the process:

"Today, we are going to discuss an issue that directly or indirectly affects us all – technology. First, this session will be recorded so that it is possible to refer back to the discussion to develop an accurate accounting of what was said. Naturally, if you do not feel comfortable with this you are free to leave. Next, no names will be used when the report of this focus group activity is written; only relevant comments will be included. Next, only one person can talk at a time. I will do my best to moderate. Also, speak up so you can be heard. Finally, do not worry about what I think or what your neighbors think or say. We are here to exchange ideas, and have fun while we do so. Let's begin."

Next, each participant was asked to:

"Please take the index card you were given and write down the single idea that comes to mind regarding the development of an academic technology plan, as explained above."

After these introductory activities, the moderator posed questions. Participants were directed to discuss each question for three minutes. They shared their comments with the complete group. Notes were taken by the moderator.

Discussion Point 1: How do you think technology use and integration can be encouraged at MATC?

Comments Summary:

- MATC should develop a set of recommended standards for what it means to be technologically competent, and these standards should be the basis for staff development.

- MATC should develop standard configurations for classrooms, including both hardware and software. Consideration should be made for special classrooms, such as laboratories, workshops, and production areas.

- The plan should encourage user-friendly technologies.

- There needs to be better communication between the four campus locations.

- The plan should have a mechanism for showcasing what faculty and staff are currently doing related to academic and information technology.

- Bilingual needs should be considered.

- Faculty need to be exposed to what is new and what students are using.

- Training should be readily available with some staff development scheduled on demand.

- A plan should include periodic evaluation of impact.

- A clear system that tracks technology requests so that requests do not disappear.

- A faculty resources center is needed.

Discussion Point 2: In general, what do you think should be included in a Technology Plan for MATC?

Comments Summary:

- The plan should include administrative technology needs.

- The budget should be driven by the technology plan, including funds for equipment, software, support, training, and plans for continuous support. Technology should be a budget item in all departments and programs.

- A plan for mandatory staff development should be included.

- Student needs must be met and should come first.

- The plan should be prioritized so funds can be allocated most effectively.

- Broad concepts such as collaboration, delivery and communication should be in the plan.

- A clearly defined and dynamic process for technology integration is needed.

- Broad concepts should guide the rest of the technology plan; ideas such as communication, collaboration and delivery.

- MATC's web presence should be considered.

- The decision-making process needs to be clearly defined; what is the chain of command?

Discussion Point 3: What barriers do you see that might prevent the implementation of a Technology Plan?

Comments Summary:

- Politics may interfere with the implementation of the plan.

- Lack of technical support causes frustration and inhibits implementation of technology. There needs to be support when it is needed, not when support is available.

- The budgetary cycle is a barrier to implementation of technology plans.

- We wonder about the true opinions concerning technology implementation held by MATC leaders.

- There is a culture of resistance at MATC.

- There is a tendency at MATC to move from initiative to initiative without closure.

- The plan must be comprehensive enough to anticipate barriers and flexible enough to overcome barriers.

- The relationship to the bargaining unit must be considered.

- Budget

- Executive level support is questionable.

- Will any plan be endorsed by the administration?

- Today there is no systematic plan, only a hodgepodge of approaches; this needs to change.

Discussion Point 4: Refer to your index card; did we discuss in a meaningful manner the issue that you wrote about? If not, let's discuss this issue now.

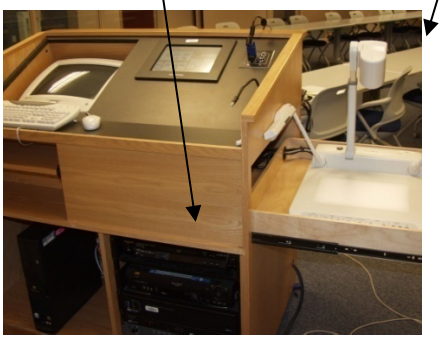
Comments Summary:

- The plan should include academic, administrative and information technologies.
- An information system (PR) should be included that explains how technology-related issues are proposed and approved.
- Expectations for employees should be made available and publicized, and include basic and outstanding levels of technology-related expectations.
- Input and buy-in from all MATC stakeholders is a must.
- Alternative fund-raising for technology-related initiatives should be considered.
- Interconnectivity between campuses should be improved.
- Union involvement is needed.
- Faculty should attend technology-utilization conferences, and external speakers with experience and ideas about technology integration should be invited to campus.
- Technologies other than academic and administrative technologies are important also, such as security technology, community technology, industrial/commercial/residential technology.

Appendix V. Sample Classroom Configuration

A sample classroom technology configuration often consists of the following equipment:

- Console Desktop Computer, CD/DVD RW, Monitor and High Speed Internet Connection
- Touch Screen Controller
- Audio Visual Equipment (VCR, DVD Player, Audio Amplifier and Mixer)
- Document Camera with Lights
- Ceiling Mounted Data Projector



Appendix VI. Action Items

The Academic Technology Plan for Milwaukee Area Technical College has a number of action items to be considered by the Academic Technology Committee:

- Establish subcommittees and workgroups of the Academic Technology Committee to support the implementation of the Academic Technology Plan.
- Develop recommended technology competencies for faculty, staff and administrators.
- Identify a recommended faculty office hardware and software technology suite.
- Develop a recommended standard classroom environment/configuration conducive to learning
.
- Request departmental and division technology plans.
- Review staffing and organizational structure and make recommendation to enable implementation of Academic Technology Plan.
- Develop a standardized methodology for managing large projects.
- Strategically address the cross-functional needs of web services.
- Increase bandwidth to meet the needs of the Academic Technology Plan.
- Establish a technology training group for faculty and staff.
- Create procedures for the delivery of blended courses at MATC.

Appendix VII Operational Plan

Strategic Goal 1: Support Teaching and Learning

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Evaluate the current use and effectiveness of technologies for teaching, learning and administration.**					
1a.		Develop annual surveys for students, faculty and staff regarding technology use and needs.	Survey created, analyzed and report disseminated	TLT	25 hours + $200 Survey Monkey fee	1
1b.		Develop approaches that measure, on an annual basis, the amount and effectiveness of technologies used for teaching and learning, and use the data from these approaches to evaluate technology practices.	Reports are created and analyzed showing Blackboard, e-mail systems, network and Internet use	IT, TLT, Research	60 hours	3
1c.		Set priorities for allocation of funds for technology support and training resources based on the results of data collection.	Support and training budgets will be driven by data	TLT in conjunction with TLT Data Committee		3
1d.		Create and support a Teaching and Learning Technology Data Committee that is responsible for collecting, analyzing and reporting data. This committee will report to the Academic Technology Committee.	Committee is created and actively meeting	Academic Tech Committee, TLT, Provost		1

Strategic Goal 1: Support Teaching and Learning

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2	**Evaluate and test new technologies for teaching, learning and administration.**					
2a.		Develop an environment for faculty and staff to examine and evaluate new technologies for potential integration into teaching, learning and administrative environments.	Plan and budget for a new technologies space within each campus FRC.	TLT, Provost, Campus VP, Faculty new technology team	$50,000 per campus	1
			New technologies space at each campus is operational	TLT, Provost, Campus VP		3
2b.		Develop a process to support faculty and staff who investigate and implement emerging technologies.	Create and fill six 19% faculty release positions to support this strategy, one each for Oak Creek, Mequon and West Allis campuses, two for Milwaukee Campus and one for CBOs based on knowledge of emerging technologies	TLT, Provost, Campus VP	Six 19% faculty positions	1
2c.		Periodically survey the MATC community, including faculty, staff, administration and students, to identify new approaches and technologies for teaching, learning and administration.	Employee survey is created. Student survey is created. Both surveys are administered.	TLT in conjunction with faculty new technology team	25 hours + $200 Survey Monkey fee	Ongoing
2d.		Evaluate data collected regarding new technologies identified by the MATC community.	Data analysis report is submitted to Academic Technology Committee	Research, TLT, Faculty, new technology team	25 hours	Ongoing

Strategic Goal 1: Support Teaching and Learning

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2e.		Utilize expert resources (such as the annual Horizon Report: http://www.educause.edu/ir/library/pdf/CSD5320.pdf) to establish the framework for evaluating and testing new technologies.	Verify that expert resources have been referenced in new technology evaluations	Faculty new technology team	Part of 19% release positions in 2B	Ongoing
2f.		Identify and support a community of early adopters of technologies for teaching, learning and administration.	Establish a system of communication for early adopters	Faculty new technology team, TLT	Part of 19% release positions in 2B	1
3	**Benchmark technology-based teaching and learning strategies.**					
3a.		Develop a process that identifies benchmarks and best practices for technology use.	Benchmarks and best practices have been identified and disseminated.	TLT, TLT Benchmark Committee	Fill full-time Coordinator of Instructional Technology position.	1
3b.		Develop a plan for program advisory committees to identify and share technology-based best practices.	Include technology best practices as an agenda item for each advisory committee meeting. Program coordinator will submit pertinent section to co-chairs of Academic Technology.	Program advisory committees, program coordinators, Academic Tech co-chairs, Provost		1

Strategic Goal 1: Support Teaching and Learning

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
3c.		Maintain professional affiliations with organizations that promote appropriate technology integration (e.g. Educause, League For Innovation, New Media Consortium)	Identify current memberships and increase by two	Provost	$2,000	1, 3
			Employees presenting MATC technology at meetings sponsored by affiliated organizations will receive financial support.	Provost, Deans	$10,000	1
3d.		Create a Teaching and Learning Technology Benchmark Committee reporting to the Academic Technology Committee to oversee the benchmarking process.	Committee is created and actively meeting.	Academic Tech Committee, TLT, Provost		1
4	**Implement approaches for distributing media assets for teaching and learning.**					
4a.		Utilize existing searchable digital repository for collecting and sharing media content.	Create a process for determining which assets will be included in the repository based on availability, need, use, and fiscal constraints.	TLT, Library, MPTV	$100,000 /year license and per-student fees	1
4b.		Create an MATC searchable digital repository for media assets not found elsewhere.	Determine which assets will be included in the repository based on availability, need, use, and fiscal constraints.	TLT, Library, MPTV	$100,000 /year License and per-student fees	1

Strategic Goal 1: Support Teaching and Learning

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
4c.		Maintain an active partnership with MPTV to share expertise and resources.	Pilot collaboration group to identify media	TLT, Library, MPTV	.5 FTE from MPTV staff	1
5	**Create technology-rich and efficient learning spaces that are student-friendly.**					
5a.		Create a plan for multimedia learning spaces that are based on standard configurations of spaces and technologies.	Disseminate the multimedia technology for classrooms plan	Campus VP, Provost, TLT	ongoing	1
5b.		Regularly review the physical environment and infrastructure that support teaching and learning.	Five-year rotation cycle	TLT		1
5c.		Create a Learning Spaces Committee reporting to the Academic Technology Committee that supports the continued development of technology-rich and efficient learning spaces.	This committee will be an integral part of the review and approval process for all new and remodeled spaces for learning across the college. This committee will establish standards for classroom improvements, multimedia facility renovation, master plan priorities and external fund raising. It will apply any sustainability plans and recommendations developed by the Sustainability Committee to all reviews and approval of college learning spaces.	TLT, faculty divisional representatives, campus representative	ongoing	1

Strategic Goal 1: Support Teaching and Learning

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
6	**Provide flexible options for technology-rich teaching and learning that supports increased enrollment and improved retention.**					
6a.		Expand high-quality teaching and learning opportunities, including alternative delivery approaches, to meet student needs anytime and any place.	Increase annual faculty technology usage by 10% as measured by annual usage survey	TLT	Fill full-time Coordinator of Instructional Technology position	1
6b.		Develop and support innovative uses of technology including simulation, games, virtual worlds, and social networking systems.	Offer annual Innovation Grants and staff development mini-grants	Provost, TLT	$125,000	1
6c.		Support student and faculty technology needs both on and off campus. Help frame realistic user expectations.	Create clear communication strategy on this issue for all users, including the widespread dissemination of the user-friendly support map.	TLT, IT, Provost, CBO's	$1,000	1
6d.		Create standards based on best-practices for online and blended learning environments.	Establish a committee to create these standards	TLT, Provost, Faculty		1
6e.		Create a plan and process to improve and expand blended and online learning.	Create identifiers for blended classes in the MATC schedule.	TLT, Class scheduling, IT	40 hours	1
6f.		Create an Enrollment and Retention Teaching and Learning Committee that is responsible for the oversight of this area. This committee will report to the Academic Technology Committee.	Establish committee and disseminate an annual report.	TLT, Research, Provost, Faculty		1

Strategic Goal 2: Support Students

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Promote student engagement through the appropriate use of instructional technology.**					
1a.		Assess the MATC student body concerning use of and need for various communications technologies.	Survey students on communication technology. Determine the digital divide within the student community.	T. Barry; T. Pilarzyk	$5,000	1
1b.		Determine how to make the MATC college experience appropriate for students using innovative technologies.	Survey students about their technology needs. Develop a plan to bridge the digital divide within the student community.	T. Barry; T. Pilarzyk	$5,000	1
1c.		Provide access to and support for student technology.	Based on survey results, provide support based on student need. Prepare a plan and implement EBS services.	IT; Library; SS, TLT	$1,000,000	3
2	**Build a consistent and unified technology support organization for students.**					
2a.		Create a user-friendly, widely available technology support map.	Create support map that is accessible, free and available 24 hrs/day to all students.	IT; SS	$40,000	3

Strategic Goal 2: Support Students

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2b.		Promote in students a culture-change related to the appropriate use of technology.	Establish technology use centers at campuses and CBO sites that are available for and run by students. Through curriculum changes, teach students about appropriate use of technology.	Provost Office	$20,000	3
2c.		Build a student technology support organization that grows as needs increase.	Establish student organization to provide for exploration and peer-to-peer mentoring with the use of technology. Determine support team to include students to adapt to growing needs.	Provost Office; SS; students	$20,000	1
2d.		Provide support for students that is available when needed, with the goal of support available 24 hours/day, 7 days/week.	Assess the support needed by the student community. Develop and implement a plan to support the student community based on needs	IT, TLT, Union; HR; Public Safety	$50,000	1

Strategic Goal 3: Support Faculty, Staff, and Administration

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Provide consistent technology support for faculty, staff and administration.**					
1a.		Create a user-friendly support map available in a variety of formats and delivered in various methods.	Support map is created and usable.	TLT, IT	1 FTE in IT	1
1b.		Provide personal real-time support for all technologies.	Live support will be available extended hours. Pilot a 24/7 Blackboard support line.	TLT, IT	Outsource for pilot $50,000	1
1c.		Log and track technology support requests.	All faculty and staff calls for support will get a timely personal acknowledgement	TLT, IT	1 FTE split between IT and TLT	1
			All persons in support positions will use college-issued smart phones to acknowledge, log and direct callers to support resources (personnel, web resources, videos, etc.)	TLT, IT, Student Services	$60,000	3
			Create effective and efficient call-routing strategies to the live support number. It should be intelligent enough to at first route the call to the same campus, but if that or any subsequent number is busy, to the first available person. The priority is always a live answer.	TLT, IT	$50,000	3

Strategic Goal 3: Support Faculty, Staff, and Administration

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1d..		Develop a system for disseminating frequently asked questions (FAQs).	Develop media and social network-based FAQ's based on usage.	TLT, IT	See FTE position in 1A above	Ongoing
1e.		Review on a periodic schedule the support provided to faculty, staff, and administration and upgrade support based on these data.	Provide a data-driven mechanism for quarterly review and ongoing improvement of the map	TLT, IT		Ongoing
2	**Provide development opportunities to increase faculty and staff awareness, knowledge and skills in all college-adopted technologies.**					
2a.		Develop college-wide, recommended technology competency standards and rubrics for faculty, staff and administrators.	Create a college-wide committee to establish technology competencies and performance rubrics for all faculty and staff positions. This committee will report to the academic technology committee	Provost, Local 212, TLT		1
2b.		Include an assessment of technology standards as part of employee evaluation and collect information yearly on employee competencies related to the college performance standards.	Tie the goals of the employee evaluation and coaching process into the results of the performance rubrics.	Provost, Local 212, TLT, HR		3

Strategic Goal 3: Support Faculty, Staff, and Administration

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2c.		Utilize technology performance data to develop a system of staff development.	Collect annual survey data on these goals to allow for data-driven professional development	Professional Development, TLT	Add 1 FTE to Professional Development to oversee faculty and staff training.	1
2d.		Link professional development offerings related to technology competencies to data collected during employee evaluation	Collected data will drive the creation of just in time technology training resulting in a culture of data-driven professional development	ER&D, Professional Development, TLT	Add 1 FTE to Professional Development to oversee faculty and staff training.	3
2e.		Institute a data-driven technology consulting program across the college that includes mentoring and social networking	Opportunities for professional development will be offered both synchronously and asynchronously, in whole or in part, with full media support	Professional Development	Add 1 FTE to Professional Development to oversee faculty and staff training.	3
2f.		Offer and widely advertise professional development opportunities for all.	A list of current development opportunities will be heavily advertised in a number of places and ways including being prominently linked to the support map and part of all follow-up support e-mail responses to calls	Professional Development	ongoing	1

Strategic Goal 3: Support Faculty, Staff, and Administration

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
3	**Develop procedures for adopting new technologies for learning and teaching.**					
3a.		Promote the adoption of new technologies.	Provide a link on the support map to the process for adopting new technologies	TLT, IT	ongoing	1
3b.		Conduct seminars and discussions, live and online, related to new technologies for learning and teaching.	Locate discussions and information related to the adoption of new technologies on facultynet or some other widely advertised and used college-wide website	TLT, Provost, Campus VP	Six 19% faculty innovators	1
3c.		Support the investigation of new technologies, including staff development.	Offer annual Innovation Grants and staff development mini-grants.	TLT, Provost	$125,000	1

Strategic Goal 3: Support Faculty, Staff, and Administration

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
4	**Promote the establishment of a culture of self-investigation and review related to the adoption and integration of technology into the learning and teaching process.**					
4a.		Provide an annual review to the Academic Technology Committee of the state of faculty and staff development regarding technology.	Disseminate the report	Professional Development	ongoing	1
4b.		Establish an ongoing culture of review within faculty and staff professional development that is comprehensive in the way it looks at best practices both within this college as well as by other colleges.	Publish a quarterly review of best practices in professional development.	Professional Development	ongoing	1
4c.		Review the status of faculty and staff development and utilize this information for the ongoing process of improved performance to reward appropriate technology use.	Support and reward innovation and experimentation related to the appropriate uses of technology for learning and teaching by establishing a series of awards.	Professional Development, TLT, Provost	$10,000	1

Strategic Goal 4: Provide Adequate Hardware and Software

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Develop and use a standard configuration of hardware and software for teaching and learning spaces that is annually analyzed and upgraded on a regular schedule.**					
1a.		Select and make available a standard hardware and software "suite" for faculty and staff use; support this standard configuration; upgrade this standard configuration on a regular schedule.	Develop and support comprehensive plans for hardware and software upgrades. Create required support and training to integrate technology into the classrooms.	ATC, IT, TLT, Provost Office, Presidents Cabinet	$2,000,000	Ongoing
1b.		Obtain from faculty and staff personalized technology needs, review these needs, and include them in technology acquisition plans.	Identify a plan and management system for providing training. Evaluate the training and resource needs before new technology is acquired. Establish a consistent and dedicated training group.	Professional Development, TLT, Provost Office, ATC, ER&D	$0	Ongoing

Strategic Goal 4: Provide Adequate Hardware and Software

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2	**Promote understanding of the technology needs of the college community, and the necessity for continuous review and revision of technology resources and support.**					
2a.		Explore various hardware configurations (e.g. laptops) to meet faculty, staff, and administrator needs.	Review departmental unit technology plans. Tools are selected and projects initiated to support the ongoing needs of the students.	President's Cabinet, SS, TLT	$20,000	Ongoing
2b.		Support technology needs for non-uniform learning and teaching situations, such as workshops, laboratories, work-at-home, and other unique situations.	Investigate the current use of mobile technology by faculty and staff and assess its impact on improving technology. Establish service-level agreements and standards that identify the level of technology support provided by IT and other technical support for district.	Provost Office, TLT, ATC, President's Cabinet	2 FTE	Ongoing
2c.		Maintain modern systems for communication using a variety of types of technology.	Engage in strategic planning to identify technology needs and goals for communication technology. Provide multimodal communication options based on user needs. A procedure is developed for faculty and staff to investigate and implement new technology.	ATC, TLT, IT, President's Cabinet	$150,000	1,2,3

Strategic Goal 5: Utilize Appropriate Communication and Content Management

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Re-engineer the matc.edu web presence on a regular, systematic basis.**					
1a.		Utilize content management tools that provide version management	Select and implement a content management system by April 2010.	IT, College Adv, SS	$160,000	1
1b.		Investigate new communication tools and how they interact with website	Quarterly assessment review of tools. Current activity YouTube, Facebook, Ning, Blogs, RSS Feeds	TBD		Ongoing
1c.		Renovate the recruitment and application process	Implement Active Admissions by June 2010	IT, SS	$252,000	1
1d.		Establish the use of media presentations for promoting educational opportunities.	Create a strategy for developing and delivering multimedia presentations on the web.	TBD		3
1e.		Protect media publicly presented	Identifying media to be protected. Develop strategy for protection. Acquire tools for protection.	Library, Legal, Provost office, IT	$75,000	3
1f.		Effectively market MATC opportunities.	Investigate strategies for aligning MATC website with marketing and recruitment plans.	College Adv, Provost office, SS		1
1g.		Engage the local community.	Incorporate social networking tools in the website to allow for community communication and engagement.	OCL, College Adv, Provost cabinet		3

Strategic Goal 5: Utilize Appropriate Communication and Content Management

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2	**Provide capabilities for reuse, importing, managing, searching and sharing of content within the institution, with other academic institutions, and with community partners.**					
2a.		Utilize an intranet for business process improvement	Develop a plan and management system for replacement of eMATC by December 2009 which works in conjunction with a browser based portal system.	TBD	$100,000	1
2b.		Implement extranet services for alumni, advisory members and community partners	Develop a plan and management system for replacement of eMATC by December 2009 which works in conjunction with a browser based portal system.	TBD	$100,000	3
2c.		Create a content management repository	Develop a plan and management system for replacement of eMATC by December 2009 which works in conjunction with a browser based portal system.	TBD	$100,000	1

Strategic Goal 5: Utilize Appropriate Communication and Content Management

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2d.		Develop learning objects and curricula in repository	Initiate a methodology to create learning objects that is repeatable. Complete a pilot project that completes three learning objects.	TLT	Op $150,000	3
2e.		Establish appropriate access roles for faculty, students, and other stakeholders	Assess the needs for roles within the college. Establishing a role based management system.	TBD		3
2f.		Finalize standard processes and formats for storing, discovery, sharing, and reuse of information	Assess current processes and formats. Develop standard processes and formats.	TBD		3
3	**Maintain modern communication systems for use by students, faculty and staff.**					
3a.		Expand on a regular basis the electronic communications tools available to MATC students, and employees, including off-campus, remote communication needs.	Select and implement a browser based portal system by June 2010	President's Cabinet, ATC, IT	$300,000	1
3b.		Ensure that communication systems are available, reliable and secure.	Identify and assess communication systems among stakeholders (faculty, students, staff, etc.)	TLT, IT		1

Strategic Goal 5: Utilize Appropriate Communication and Content Management

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
3c.		Migrate communication to a paperless system, when and where appropriate.	Divisions report on a regular basis the activities to decrease the use of paper systems. One hundred percent utilization of ImageNow for digital capture of paper source documents in all divisions.	President's cabinet	$750,000	5
3d.		Support the mobile communication needs of students and employees.	Software evaluations must include the use of mobile technology. Investigate the current use of mobile technology by faculty and staff and assess its impact on improving technology. Develop a plan for providing mobile technology for faculty and staff to improve communication and productivity.	TBD	$250,000	3
3e.		Provide technology-based meeting and collaboration systems	Divisions and departments assess and report on their productivity gains from using technology-based meeting and collaboration systems. Investigate, select, promote, and acquire hardware and software necessary to utilize technologybased meeting systems. Establish a replacement cycle for telecommunication technology.	TBD	$150,000	3

Strategic Goal 5: Utilize Appropriate Communication and Content Management

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
4	**Provide modern, second-generation (Web 2.0) services to the college community.**					
4a.		Provide training and support for Web 2.0 systems/social networking systems.	Identify a plan and management system for providing training. Evaluate the training and resource needs before new technology is acquired. Establish a consistent and dedicated training group.	TBD	3 FTE's	3
4b.		Encourage the use of innovative technology applications that can be accessed over the web.	Divisions assess current applications and processes to determine and increase efficiencies through the use of web.	President's Cabinet		3
5	**Develop a next generation digital library system.**					

Strategic Goal 5: Utilize Appropriate Communication and Content Management

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
5a.		Develop a digital content library system and incorporate this system with the current library.	With help from faculty, promote use of existing digital library assets (e-books, databases, e-journals, e-reserve). Run a pilot with five coursesbusing videos. Obtain licenses to deliver videos from a streaming server, upload the videos on to the server, create an easy way for faculty to obtain the links to these servers. Explore the bandwidth requirements for delivering video to multiple people via the streaming server. Increase bandwidth to meet those needs.	Provost Cabinet, Library, IT	$15,000 + bandwidth costs	3
5b.		Provide virtual, online library support systems.	For two hours per day, pilot a reference chat room to obtain data on how it works and how much it is used (could be just text or could contain audio and video). Pilot could include trial access at some CBO sites for students who do not have computer access at home. (Grant money may be a possibility.)	Library	$10,000	1
5c.		Support student and faculty use of the digital library system.	Pilot creation and posting of at least 3 videos training in use of library resources	Library	$25,000	1

Strategic Goal 6: Develop Adequate Infrastructure, Network and Security

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Establish technology standards that meet the needs of MATC users.**					
1a.		Provide standard technology options for students and employees; computer-based and media technologies.	Complete an inventory of all existing hardware & software available within the college. Develop a cross-functional technology standards committee to determine standards for technology in classrooms and offices.	IT, Academic Services	$5,000	Ongoing
1b.		Provide modern, high-speed and regularly updated wired and wireless connectivity.	Plan for yearly review of connectivity needs, with successful implementation based on allotted budget. Ensure internet bandwidth meets demand. Prepare for implementation of WIMAX service as per agreement with Clearwire.	IT, Academic Technology	$125,000	Ongoing
1c.		Arrange for seamless connectivity between technology systems.	Review all critical systems and inter-connectivity options. Active Directory implemented	IT, Academic Services	$50,000	1, 2, 3
1d.		Support traditional, computer, and alternative technologies in addition to those in the standard configuration.	Plan developed to support traditional technologies and posted on intranet. Determine costs and support structure for alternative technologies.	IT, Academic Technology, Academic Services, Provost	2 FTE's	5

Strategic Goal 6: Develop Adequate Infrastructure, Network and Security

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1e.		Adequately support non-computer and computer-based technologies.	Define standard hardware/software including support capabilities	IT, Academic Technology, Academic Services, Provost	N/A	1, 2
1f.		Increase infrastructure support for distance education.	A suitable remote access and user support structure is implemented. Ensure internet bandwidth meets expected usage for distance education. Develop support system for WIMAX implementation with Clearwire.	Academic Technology, Provost, Academic Services, IT	Operating - 1-2 FTE's Capital - $150,000	1, 2, 3
2	**Maintain and upgrade the existing infrastructure.**					
2a.		Identify and upgrade aging infrastructure, according to a pre-determined replacement plan.	Plan for regular 3 - 7 year upgrade/replacement cycle created	IT, Operations	$200,000	1
2b.		Support hardware and software upgrades on a regular schedule.	Plan and budget for regular 3 - 7 year upgrade/replacement cycle	IT	$200,000	Ongoing
2c.		Provide for reliable infrastructure availability.	Reports created to track availability of critical systems	IT, Operations	$0	1

Strategic Goal 6: Develop Adequate Infrastructure, Network and Security

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2d.		Develop and support comprehensive plans for infrastructure upgrading and expansion.	Plan for regular 3 - 7 year upgrade/replacement cycle created (review industry standard replacement cycles)	IT, Construction Services, Operations	$250,000	2, 3, 4, 5
2e.		Develop plans for increasing bandwidth that are implemented regularly.	Reports created to track bandwidth usage.	IT	$0	Ongoing
2f.		Institute service-based networking	Plan for traffic prioritization, traffic filtering and localization of resources where applicable. Service-level agreements are established and enforced for critical applications and services.	IT, Academic Services, Academic Technology, Provost	Operating - $10000 Capital - $50,000	2, 3
3	**Establish standard procedures for technology acquisition and support.**					
3a.		Create a standardization of infrastructure systems to maximize reliability, enhance maintenance, and improve support.	Develop and implement a procedure to maintain a list of standardized technology products for the district.	IT, Provost, Academic Technology, Presidents Cabinet	$0	1

Strategic Goal 6: Develop Adequate Infrastructure, Network and Security

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
3b.		Develop a centralized review and purchasing of technologies.	Establish a procedure to review all technology projects and purchases, publish standard hardware/software options in alignment with the budgetary process. Implement a vendor contract management system for technology.	IT, Purchasing, Provost, Academic Technology, IT Steering	$0	Ongoing
3c.		Conduct a formal review of plans for technology innovation and expansion to provide for adequate support.	Establish a procedure to review all technology projects and purchases to ensure adequate support structure n alignment with the budgetary process.	IT, Purchasing, Provost, Academic Technology, IT Steering	$0	Ongoing
4	**Consolidate islands of applications.**					
4a.		Explore server-based / thin-client applications.	Implementation of server-based technology to deliver applications for online courses and remote users. Complete pilot of thin-client workstations to determine areas of acceptable use.	IT, Provost, Academic Technology	$75,000	1,2
4b.		Investigate innovative approaches for infrastructure support such as “cloud” computing and virtual desktops.	Review results from 4a and determine the feasibility of this technology within MATC offices, labs or classrooms.		$250,000	2/3/2004

Strategic Goal 6: Develop Adequate Infrastructure, Network and Security

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
5	**Implement practices that are sustainable.**					
5a.		Explore procedures to reduce energy requirements.	Reduction in utility costs	IT, Operations	$0	3
5b.		Provide a system of seamless redundancy and disaster recovery.	Development of DR center at Oak Creek Campus, Implementation of redundant systems for critical systems and data	IT, Construction Services, Operations, Student Services,Finance, Academic Services	$500000	1, 2, 3, 4, 5
6	**Create technology/computing policies and procedures**					
6a.		Develop acceptable-practice procedures for college technology use.	Policies/procedures developed and approved	IT, Academic Technology, General Counsel	$0	1
6b.		Develop and publicize college e-mail and Internet usage procedures that limit college liability but provide for a high level of academic freedom.	Procedures developed, approved and publicized	IT, General Counsel	$0	1

Strategic Goal 7: Utilize Continuous Review and Alignment

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
1	**Review the management and support staff infrastructure for technology systems at Milwaukee Area Technical College.**					
1a		Establish clear lines of reporting for technology management.	Establish a procedure for ownership, maintenance, and support for information technology within the district.	IT, Provost Office, Academic Technology, President's Cabinet		
1b.		Centralize an emergency communications network and a technology recovery plan.	Select and implement a multi-modal communications system. Develop a disaster recovery plan for the district and each division that provides for business continuity.	IT, Provost Office, Academic Technology, President's Cabinet		
1c.		Provide adequate support staff to meet the requirements of the technology plan.	Identify the roles needed within the district to support technology. Develop a technology staff "table of organization" for the district and divisions.	IT, TLT, ER&D, Provost Office		
1d.		Provide awareness for project management as process improvement.	Project management adapted as an AQIP project	Provost Office		

Strategic Goal 7: Utilize Continuous Review and Alignment

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
2	**Evaluate technologies and technology infrastructure.**					
2a.		Ensure technology is in alignment with Academic Technology Plan	Technology initiatives are fully funded and staffed.	Provost, VP's, ATC		
2b.		Implement procedures to maximize the return-on-investment for academic and informational technologies.	ROI is identified and monitored on all new technology purchases. Replacement cycle for all hardware is established and fully implemented.	IT, Finance, ATC		
2c.		Ensure that technology use in the college is in compliance with regulations, laws and licenses.		Legal Counsel, IT, Provost, VP		

Strategic Goal 7: Utilize Continuous Review and Alignment

NUMBER	OBJECTIVE	STRATEGIES	KPI/MEASURE/TARGET	STRATEGY OWNER	BUDGET PLAN $ AMOUNT	PLAN YEAR 1, 3, OR 5
3	**Establish a technology plan review process.**					
3a.		Institute a technology plan process for all divisions that is in alignment with the budgetary process.	Establishment of a timeline that provides for adequate assessment in alignment with the budgetary process. Creation of technology committee within each division. Develop departmental unit technology plans. Align departmental technology requests with divisional technology plans and with the college plan. Assimilate and combine departmental plans into divisional technology plan. Divisions to develop and submit to the Academic Technology committee local technology plan following the structure of the college technology plan.	President's Cabinet, ATC, IT		
3b.		Establish a technology plan review process for the Academic Technology Committee	Review ATC role in planning process and ensure membership represents the correct stakeholders within the college. Collect technology plans from divisions. Evaluate divisional plans relative to the college plan. Provide feedback to divisions. Adjust college plan. Report on a periodic basis the technology needs, plans and requests of divisions and the college.	ATC		