DAKOTA COUNTY
TECHNICAL COLLEGE

TECHNOLOGY MASTER PLAN

2010-2012

Table of Contents

Planning Alignment and Integration

The Dakota County Technical College 2010-2012 Technology Master Plan was developed by identifying initiatives that align with the MnSCU 2008-2010 Strategic Plan for the system as well as the Dakota County Technical College 2007-2010 Strategic Plan and Dakota County Technical College Master Facilities Plan 2010-2015.   Each initiative identifies which goal or direction it will coordinate with.

Minnesota State College and University Strategic Plan

The Minnesota State College and Universities Strategic Plan identified four strategic directions and goals:

Strategic Direction 1: Increase access and opportunity
> Goal 1.1: Raise Minnesota's participation and achievement in post-secondary education by meeting the needs of students with diverse backgrounds and educational goals
> Goal 1.2: Work with other organizations to prepare all young people to graduate from high school and enroll in college prepared for college-work.
> Goal 1.3: Maintain an affordable cost of attendance for Minnesota.

Strategic Direction 2: Promote and measure high-quality learning programs and services
> Goal 2.1: Promote accountability for results through a system of accessible reports to the public and other stakeholders
> Goal 2.2: Produce graduates who have strong, adaptable and flexible skills
> Goal 2.3: Provide multiple delivery options for educational programs and student services

Strategic Direction 3: Provide programs and services that enhance the economic competitiveness of the state and IT regions
> Goal 3.1: Be the state's leader in identifying workforce education and training opportunities and seizing them.
> Goal 3.2: Support regional vitality by contributing artistic, cultural and civic assets that attract employees and other residents seeking a high quality of life.
> Goal 3.3: Develop each institution's capacity to be engaged in and add value to IT region and meet the needs of employers in IT region

Strategic Direction 4: Innovate to meet current and future educational needs
> Goal 4.1: Build organizational capacity for change to meet future challenges and remove barriers to innovation and responsiveness.
> Goal 4.2: Reward and support institutions, administrators, faculty and staff for innovations that advance excellence and efficiency.
> Goal 4.3: Hire and develop leaders who will initiate and support innovation throughout the system.

Dakota County Technical College Strategic Plan

The 2007-2010 Dakota County Technical College Strategic Plan identified five strategic goals:

Goal 1: Diversity
Dakota County Technical College will attract and support more students and employees from diverse backgrounds, by sustaining a welcoming and supportive environment for personal and professional growth.

Goal 2: Enrollment
Dakota County Technical College will expand IT role in meeting the educational and training needs of students and businesses at the local, regional, and national levels through innovative models of instructional delivery.

Goal 3: Engagement
Dakota County Technical College will increase opportunities for IT students and employees to participate in service learning, sustainability, and civic engagement activities at the local, regional, national and global levels.

Goal 4: Teaching and Learning
Dakota County Technical College will enhance IT educational and training options in science, technology, engineering, and mathematics (STEM) disciplines, for both IT traditional student and the incumbent workforce.

Goal 5: Financial Stewardship
Dakota County Technical College will reduce IT dependency on traditional revenue sources through innovative financial and fundraising strategies.

Technology Master Plan Goals

Goal 1: Provide exceptional technology infrastructure to support to academic programs and departments through continuous review, enhancement, and renewal.

Goal 2: Provide exceptional technology support to academic programs and departments through continuous review, enhancement, and renewal.

Goal 3: Provide exceptional resources and support of online learning programs.

Goal 4: Meet future technology challenges with flexibility and speed.

Technology Initiatives

Expansion of Wireless Internet Connectivity and Applications

Wireless access on-campus will be expanded for student, faculty and staff use.   Due to the construction of the building, more wireless access points need to be used to expand the bandwidth and signal strength.

The goal of increasing the number of access points from 15 in 2009 to 30 in 2012 on the main campus. The Apple Valley campus currently has three access points that sufficiently covers the facility. The IT Department will budget $5,000.00 for this effort each fiscal year.

In addition to wireless connectivity expansion, applications for staff and facility use will also be expanded. This will include digital signage that can be updated remotely, as well as applications for inventory, helpsys, email and calendar access, and other web base applications. Applications and equipment for faculty use in the classroom that connect remotely via wireless network will also be expanded. The specific applications to be considered include: smart boards, virtual desktops, remote student access, and lab simulation software. The timeline for this action is 2010 - 2012. The IT Department will budget $10,000.00 for this effort each fiscal year.

Wireless connectivity equipment is less expensive than hard-wiring network outlets; therefore, this initiative also demonstrates DCTC's commitment to financial stewardship. It also demonstrates DCTC's investment in the President's Campus Climate Commitment because the wireless equipment is more energy efficient than traditional networking equipment.

Alignment with Goal: MnSCU Strategic Direction 2, 4 and DCTC Strategic Goal 5

Expansion of Server and Desktop Virtualization

The Dakota County Technical College Information Technology department will continue to reduce the amount of physical hardware needed to support server application by increasing the use of server virtualization. Server virtualization is a more efficient means of using a single piece of server hardware to house multiple server applications. This equipment reduction allows for cost savings not only in equipment costs but also in energy needs.

Additionally, the Information Technology department will explore the use of desktop virtualization for students, faculty and staff computing needs. Desktop virtualization will create a server image of applications and stored files that are tied to each user's network log in. Thin-client hardware would be used to access the same computer image no matter where they logged in. This initiative would reduce hardware equipment costs as well as increase energy efficiency.

The timeline for this action is 2010 - 2012. To complete this activity, the IT Department will need to purchase servers, software licenses, and thin client hardware. The IT Department will budget $15,000.00 for this effort each fiscal year.

Alignment with Goal: MnSCU Strategic Direction 4, DCTC Strategic Goal 5

Expand Usage of Multipurpose Hardware in Classrooms

The Dakota County Technical College Information Technology department will continue to expand IT use of multipurpose hardware in computer classrooms. Currently, dual-boot Macintosh computers that run both a Windows XP and the Mac 10.X OS are being used in several classrooms. This technology allows users to access both PC and Mac applications. This allows for more efficient classroom usage and reduces equipment costs. This may be expanded to a triple boot system to include either the Linux or Windows 7 OS as needed by classroom curriculum.

The timeline for this action is 2010 – 2012. To complete this activity, the IT Department will need to purchase software licenses. The IT Department will budget $5,000.00 for this effort each fiscal year.

Alignment with Goal: MnSCU Strategic Direction 2, 4 and DCTC Strategic Goal 5

Increase Usage of Electronic Storage

Usage of the "ImageNow" product for electronic record storage will continue to be expanded beyond the current usage in Student Services, Financial Aid and the Business Office. Additional areas that would benefit include Academic Affairs, Human Resources, and Facilities.
The electronic storage of records reduces the cost of paper usage and document storage as well as increases usage efficiency.

The timeline for this action is 2010 - 2012. To complete this activity, the IT Department will need to purchase software licenses, hardware, and technical support. The IT Department will budget $10,000.00 for this effort each fiscal year.

Alignment with Goal: DCTC Strategic Goal 5

Continued Technology Training Opportunities

The information technology department in conjunction with the instructional technology department will continue to offer technology related workshops on a monthly basis as part of their "Techie Thursday" series.

Additional technology related documentation, tutorial and training resources will be shared via DCTC I.T. blog (DoIT). The blog would be re-launched and promoted more for use by staff and faculty.

Faculty that use or want to use the Desire2Learn system for their classes will also have opportunities for both workshop-based and one-on-one training through the Instructional Technology department. Electronically delivered workshop and materials will also be expanded for both faculty and students.

The timeline for this action is 2010 - 2012. To complete this activity, the IT Department will need to maintain our MnSCU D2L participation. The IT Department will budget $65,000.00 for this effort each fiscal year. This budget is collected through the online tuition rates that are

charged for all online classes. The budget is adjusted depending on the number of online credits sold.

Alignment with Goal: MnSCU Strategic Direction 2, 4 and DCTC Goal 2, 5

Continued Evaluation and Recommendation of Software and Online Learning Tools

The Instructional Technology department will continue to seek out and evaluate software products and web-based tools for use in the development of course curriculum or assessment for both online and classroom courses.

The timeline for this action is 2010 - 2012. To complete this activity, the IT Department will need to purchase software and web-based tools. The IT Department will budget $5,000.00 for this effort each fiscal year.

Alignment with Goal: MnSCU Strategic Direction 1, 2, 4 and DCTC Goal 2, 4, 5

Planning Process

Each year, the IT Department plans and budgets for the annual maintenance, replacement, and continuation of existing technology services on campus, as well as identified upgrades of such services.

The planning process is divided into four steps:
1) Review of existing institutional technology needs with input from faculty, staff and students.
2) Creation of on-going maintenance project list and new technology project list with short range (days), mid range (months), and long range (6+ months) project lists.
3) Multi-department review of project list.
4) Multi-department approval of project list.

Planning Considerations

In executing the Dakota County Technical College Technology Master Plan initiatives, several planning considerations need to be taken into account, including funding, expenditure budgeting, staffing, MnSCU technology initiatives, and technology changes.

Funding

The majority of technology initiatives are funded by the Student Technology Fee. This funding is dependent on student enrollment. The current Student Technology Fee is $10 per credit. On an annual basis, the Information Technology department will review this fee to determine if it is sufficient to meet student technology needs.

The second source of funding for technology initiatives is the College's General Fund. Given the declining state appropriation and uncertain enrollment projections, the Information Technology department's allocated funding from the General Fund will not increase in the foreseeable future.

Expenditure Budgeting

Given stable or declining revenues from both the General Fund and the Student Technology Fee, the Information Technology Department will need to be flexible. The Information Technology department seeks to create annual budgets that preserve current staffing in order to maintain an on-going commitment to high-quality customer service. The Information Technology department will continue to invest in technology initiatives when sufficient funds are available. Capital expenditure flexibility will be essential given the near-term budgeting challenges.

Staffing

To fulfill the initiatives outlined in this plan, it is necessary to maintain staffing levels in the Information Technology and Instructional Technology departments with qualified individuals that meet the needs of the campus community.

MnSCU Technology Initiatives

As part of MnSCU, the system Information Technology division may have additional initiatives with which the campus must comply. Examples of recent MnSCU technology initiatives include:

- PCI – DSS Card Industry Data Security Standards
- E-Timesheets
- Emergency notification tool

Technology Changes

As quickly as hardware and software technology changes and develops, this plan was created with current technology available. As new hardware and software become available, the direction or functionality of these initiatives may change.

The classroom hardware (computer) replacement cycle is five years. When hardware (computer) is replaced in a classroom, the computers are re-used in other areas of the college or donated to our community partners.

Assessment

In 2009-2010, the College's IT Department developed and implemented a schedule of yearly activities for campus-wide participation in technology planning and assessment. They include conducting a student satisfaction survey, attempting to gauge the attitudes of about 10 percent of the student body, and a faculty satisfaction survey involving all academic departments.

The IT Department collaborated closely with the Director of Institutional Research to develop and implement both the student and faculty satisfaction survey. The intention is to continue this joint effort on an annual basis for measuring student and faculty attitudes towards technology

and technology services. Information obtained through these two evaluation initiatives will be integrated into on-going improvements in technology services, innovation, and priorities.

As part of this year's technology planning process, the IT Department also reviewed current processes for identifying IT projects and prioritizing the completion of those projects. Much has changed in educational technology and technology use in the past decade, and the college now appears to face different challenges. However, campus-wide information sharing is still critically needed to shape innovation and use, with the aim to effectively support teaching and learning, as well as improve institutional effectiveness. In addition, IT will also support faculty/academic assessment efforts with various computing and Web resources.