

TECHNOLOGY Executive Summary

Charge to the Technology Committee:

The Technology Focus Area Team was charged with assessing currency, delivery integration and coordination of ECC's technology plan, prepared by Collegis, to assure that the overall IT plan strategically integrates ECC's ideal vision.

Desired Outcomes:

To sustain a high quality, responsive, innovative, relevant information technology capability suited to the present and future needs of ECC's service region.

How Recommendations link to fulfillment of the Vision, Mission and Core Values

Technology affects every aspect of ECC life and operations. No other single capability, with the notable exception of outstanding faculty and staff, affects the ability of ECC to fulfill its vision and mission. Indeed, through a wise use of technology, ECC can reach more students, in more ways, more cost-effectively than ever. While technology will not replace faculty and staff, it does have the promise of extending and enhancing the potential of all ECC employees in the fulfillment of the college's goals.

Focus Area Team Summary List of Recommendations

1. Establish comprehensive networking and hardware infrastructure to support academic, administrative, and student support for all campuses
2. Establish a comprehensive information management system
3. Establish a productivity capability that enables each student, faculty member and staff member to optimize her or his performance
4. Establish technology process plans to assure optimal use of existing systems
5. Establish technology plans to assure continual improvements for enhanced systems, new technology, upgrades, maintenance and repair, and customer service

Resultants International, Inc. Summary List of Recommendations

1. Continue implementation of Collegis plan
2. Create an institutional technology planning cycle for strategic planning
3. Maintain faculty and staff technology-training programs
4. Provide comprehensive model for information technology
5. explore potential for partnerships to share and upgrade technology
6. Keep updated IT policy and procedures manuals

Wendel Duchscherer Summary List of Recommendations

1. Designate City campus as Information Technology Center of Excellence

Focus Area Teams Technology Recommendation #1

Establish comprehensive networking and hardware infrastructure to support academic, administrative, and student support for all campuses.

Action Plan

1. Complete the recommendations of the Collegis Report.
2. Perform a gap analysis annually to assess the extent to which necessary performance is matched by system capabilities.
3. Plan for the next backbone, system software and hardware upgrade.
4. Maintain a single Chief Information Officer to coordinate the technology needs of all campuses.
5. Institute a budget model in which technology infrastructure becomes a part of the overall capital improvements of the college.

Cost of Strategy 1: 5-year projection: \$4 million

- i. Collegis report: \$1 million
- ii. Upgrades: \$3 million

Focus Area Teams Technology Recommendation #2

Establish a comprehensive information management system.

Action Plan

1. Coordinate administrative, financial, student service, academic, institutional research and other networked computing through an enterprise database.
2. Implement a security and firewall system to protect the integrity of ECC's systems.
3. Implement a data management system that allows the capability to manage text, numbers, voice, video, audio, images, graphics, and other media.
4. Coordinate web services with marketing, academic programming, and all other aspects of the college.
5. Implement one-stop shop capability for all student, faculty, and staff transactions with the college.
6. Institute a budget model in which information systems become a part of the college's administrative budget, with responsibility shared among the vice presidents.

7.

Cost of Strategy 2: 5-year projection: \$43 million

- i. Enterprise data base system: \$30 million
- ii. Voice system: \$2 million
- iii. New construction: \$2 million
- iv. Security systems: \$3 million
- v. Web services: \$5 million
- vi. Transaction processing: \$1 million

Focus Area Teams Technology Recommendation #3

Establish a productivity capability that enables each student, faculty member and staff member to optimize her or his performance.

Action Plan

1. Provide appropriate desktop computing hardware and applications for all faculty and staff.
2. Provide appropriate desktop computing hardware and applications for student use in classrooms and for studying.
3. Enhance video and audio conferencing capabilities across all campuses to encourage more cross-campus academic class work and distance learning.
4. Standardize on campus-wide email and communications protocols.
5. Institute a budget model in which the productivity infrastructure becomes a part of the departmental budgets, with accountability at the departmental level.

Cost of Strategy 3: 5-year projection: \$19 million

- i. Desktop computing: \$5 million
- ii. Student computing: \$5 million
- iii. New construction: \$2 million
- iv. Distance learning: \$5 million
- v. Course development: \$2 million

Focus Area Teams Technology Recommendation #4

Establish technology process plans to assure optimal use of existing systems.

Action Plan

1. Provide appropriate and necessary training for faculty, staff, and students.
2. Implement a computer literacy requirement for student graduation.
3. Implement a minimal computing competency level for each personnel grade.
4. Assess college workflow, data analysis, communication flow, and policies and procedures to assure alignment and efficiencies of scale, both in terms of cost and customer service.
5. Institute a budget model in which the process improvements become a part of the chief information officer's budget.

Cost of Strategy 4: 5-year projection: Savings of \$15 million

- i. Training: \$2 million
- ii. Improved workflow: Savings of \$10 million
- iii. Policies and procedures: Savings of \$2 million
- iv. Improved customer service: Savings of \$5 million

Model College Programs

For more information, please refer to the APPENDIX Volume III Section 3 Part 5.

Focus Area Teams Technology Recommendation #5

Establish technology plans to assure continual improvements for enhanced systems, new technology, upgrades, maintenance and repair, and customer service.

Action Plan

1. Maintain contact with other regional and national community colleges for best practices.
2. Review all technology contracts to assure life cycle support and funding.
3. Develop a total-cost-of ownership model for technology for budgetary and planning purposes (NACUBO standards)
4. Utilize student workers in computer repair programs for maintenance support along with local vendors.
5. Provide recognition and awards to faculty, staff, and students, who demonstrate methods to save money, improve service, or otherwise improve technology usage.
6. Update the technology strategic plan every three years.
7. Seek grant and contracts to support technology and technology programs.
8. Seek partnerships and cooperative agreements with business, industry, and government to support technology acquisitions and upgrades.
9. Institute a budget model in which the technology improvements become a percentage of the total budget, assigned to the chief information officer, and dedicated to the improvement of the college's technology systems and capabilities.

Cost of Strategy 5: 5-year projection: Savings of \$15 million

- i. Improved contracting: Savings of \$2 million
- ii. Improved planning, purchasing and servicing: Savings of \$5 million
- iii. Grants and partnerships: Increase of \$8 million

National Center for Technology Planning is a source for models for the next steps in a technology planning process. See website at <http://www.nctp.com/>.

Potential impact on other focus areas:

Alternative Revenue

- a. Pursues partnerships with business and government, scholarships and other designated funding.
- b. Pursues technology grants
- c. Allows new non-credit and certificate programs with attendant new funding.

Curriculum

- a. Supports distance learning.

- b. Enhanced teaching and learning through multi-media presentation and tailored systems to various learning methods.
- c. Promotes high-technology degree programs.
- d. Allows more learning opportunities and access to information for all faculty and students.
- e. Allows cross-campus faculty collaboration

Facilities

- a. Enables coordination of functions across space (e.g., faculty secretaries do not have to be co-located with faculty to assure that work is completed)
- b. Allows for more access to college's faculty, learning resources, and laboratories through remote access.
- c. Requires continual monitoring of infrastructure to assure that facilities and technology are compatible.
- d. Heightens risk management needs for security and system safety.
- e. Reduces need to have all staff on campus, all processing and transaction analysis can be handled anywhere.

Support Services

- a. Increases need for effective planning as technology demands and capabilities increase.
- b. Increases expectations by students and employees for more services, faster, and more conveniently provided.
- c. Places additional strain on capital budgets, departmental budgets, and student fees.
- d. Increases necessity to have compatible systems to coordinate information, assure trusted data, and maintain data and system integrity.

Economies and Efficiencies

- a. Reduces costs of distance learning.
- b. Increases cost of day-to-day operations.
- c. Increases opportunities for new programs to increase revenues.
- d. Increases need for comprehensive planning that includes all members of the college community.

Resultants International, Inc. Technology Recommendation #1

Continue implementation of Collegis plan.

Tactical Plan First Steps:

Vice presidents agree on implementation schedule and plans for updating the plan. Maintain cycle of implementation on rolling three-year basis.

Resultants International, Inc. Technology Recommendation #2

Create an institutional technology planning cycle for strategic planning, tied to the master facilities planning, resource allocation and budgeting, and curriculum development.

Tactical Plan First Steps:

VPAA and VPAA agree on implementation schedule and plans for updating the reports. Maintain cycle of implementation.

Resultants International, Inc. Technology Recommendation #3

Maintain faculty and staff technology-training programs.

Tactical Plan First Steps:

Administration and faculty create roster of technology needed for ECC, then design a strategy to implement a training program. Administration allocates resources to training plan.

Model Community College Programs

The League for Innovation in the Community Colleges has been supporting long-range research and monitoring of technology innovations in instruction and other areas since the mid-1990's. The colleges that are participating in the programs are:

Central Florida Community College, FL
Delta College, MI
Kaplan Community College, HI
Kirkwood Community College
Moraine Valley Community College, IL
Miami-Dade Community College, FL
Santa Fe Community College, FL
Sinclair Community College, OH

For more information, http://www.league.org/league/projects/plato_rproject.htm

Resultants International, Inc. Technology Recommendation #4

Provide a comprehensive model for information technology that includes, but is not limited to, teaching and learning technologies, student labs, system security, intellectual property, telecommunications, college-wide administrative and information systems, academic and library systems, networks, external delivery systems (web, televised course, portal support, etc.), community access, transaction processing, business-to-business models, ERP's, networking, expanded access/memory/speed.

Tactical Plan First Steps:

Building from the Collegis plan, create a systems view of the ECC technology infrastructure, identify all relevant components and their interrelationships. Identify strengths and weaknesses in the system, mapped against institutional priorities and resources, to develop rolling three-year IT strategy.

Model Community College Programs

The Consortium for Community College Development, sponsored by the University of Michigan, is a network of over 170 2-year colleges in 30 states and 3 Canadian provinces.

Their approach is distinctively collaborative and pragmatic. They maintain close ties with our member institutions to ensure the relevance of our services, and to facilitate greater networking within and between community colleges. The only New York member is Hostos Community College.

Note: EduCause, the leading IT organization in higher education recently announced its 2001 technology award went to State University of New York. Their release said, "The SUNY Learning Network (SLN) is the premiere online learning program of the Office of the Provost of the State University of New York, designed to increase access to SUNY's academic programs and maintain consistently high quality in online learning, and to do so with fiscal prudence. The thoughtfully designed and implemented program, a result of extensive collaboration among all participating campuses with leadership from the Office of Advanced Learning & Information Services, features a variety of elements of value to other institutions, including:

- **a well-structured four-stage faculty development process and seven-step course design process, with extensive training and support for participating faculty and an emphasis on providing for different learning styles;**

- a robust technology architecture that offers a reliable development and learning environment for faculty and students, emphasizing a high degree of individual interaction;
- a 24x7 technical support program that serves all participating SLN institutions;
- a funding and property-rights model that recognizes and rewards the contributions of individual faculty and institutions and, at the same time, acknowledges a common need for high quality support and service;
- assessment techniques for tracking results and levels of satisfaction.

By any quantitative measure, the program is highly successful. Between 1995 and 2001, annual course offerings increased from 8 to more than 1,500; student enrollments increased from 119 to more than 25,000; participating SUNY campuses increased from 2 to 53; complete online degree offerings increased from 0 to more than 40. Faculty have reported excitement with the chance to consider alternative means of instruction and assessment; students are twice as likely to report high levels of learning in SLN as they are in classroom courses on similar subjects. The SLN approach serves as an outstanding model for offering a broad range of high quality courses, with a solid, efficient, and cost-effective infrastructure for faculty development and student support.”

Resultants International, Inc. Technology Recommendation #5

Explore potential for partnerships to share and upgrade technology.

Tactical Plan First Steps:

President and chief information officer meet with heads of regional technology companies, internship sites, and others to develop a stream of technology partnerships to assure students that they will be using state-of-the-practice or better technology.

Resultants International, Inc. Technology Recommendation #6

Keep updated IT policy and procedures manual, configuration management manuals, disaster recovery, network management and IT standards.

Tactical Plan First Steps:

CIO develops and maintains appropriate manuals to protect the viability and integrity of ECC systems.

**Key for
Impact
Assessment
Tables**

Short term = 0-5 years
 Long term = 5-15 years
 Financial = Resource Impact
 Internal = Effect on Faculty, Staff, and Administration
 External = Effect on Students and Community

H = High
 M = Moderate
 L = Low

Technology Impact Assessment							
Recommendation	SHORT TERM				LONG TERM		
	Financial	Internal	External		Financial	Internal	External
1. Collegis implementation	M	H	M		M	H	M
2. Master planning cycle	L	H	L		L	H	L
3. Training	M	H	L		M	H	L
4. System's approach to technology	H	H	M		H	H	M
5. Partnerships	L	M	M		L	M	M
6. Policy and Procedures	L	M	L		L	M	L

Wendel Duchscherer Technology Recommendation #1

City Campus should be designated as an Information Technology Center of Excellence for business and governmental workforce development with facilities expansion being driven by academic need. This decision would affect the infrastructure of City Campus as laboratory and technology capabilities are enhanced.