TECHNOLOGY GOALS

College of Education
Valdosta State University

ACKNOWLEDGMENT

During the Spring of 1995, Dr. Russ Yeany, Dean of the College of Education at the University of Georgia, shared the Technology Goals for his institution with other University System Deans. He also gave permission to adopt and/or adapt all or any portion of the document for use by any of the other institutions in the System.

What follows is an adaptation of the University of Georgia's document that was developed by the Technology Committee in the College of Education at Valdosta State University. We are deeply indebted to Dean Yeany and our colleagues at the University of Georgia for permission to adapt from their document.

We are positive that these goals will help guide us as we expand technology in the College of Education at Valdosta State University.

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NOTE: This document is available in electronic form at the site: http://www.valdosta.peachnet.edu using a www browser such as Netscape. Clicking "Colleges and Departments," will take you to the College of Education's main menu. At this menu look for the document title, "Technology Goals for the College of Education."

INTRODUCTION

Technologies such as multimedia instruction, electronic presentations, distance learning, and electronic mail are changing the way we teach, learn, and communicate. Increasingly, technology-related skills are a prerequisite for College of Education graduates to gain employment in their chosen field. Therefore, undergraduate and graduate students must receive extensive and systematic exposure to influential technologies. The purpose of this document is to set goals that will enable the College of Education to ensure that faculty, staff, and students can keep pace with important technological changes within our society.

There are a variety of overriding concerns related to all aspects of these proposed technology goals that need to be emphasized from the outset. These include the following:

Purpose of Goals

These technology goals should be considered as ideals for which to strive. They are not intended as criteria for evaluating faculty, staff, or students. They are primarily intended to guide the processes of strategic planning and resource allocation within the College of Education and its departments and programs. It is expected that positive incentives will be provided for faculty and staff to achieve these goals. Outcomes should include increased efficiency, better preparation of students, and a higher quality work environment.

Local Application of Goals

Because of the enormous diversity of departments and programs within the College of Education, no statement of goals can possibly be appropriate for everyone. The following goals are meant to reflect the expectations that face many of the College of Education's employees and graduates. Each department and/or program must decide which goals are, or are not, applicable to individuals within their domain. Moreover, each department and/or program has an obligation to set additional, more specific goals appropriate to its faculty, staff, and students.

An additional application foreseen for these goals is to guide the use of technology in the public schools. For a significant number of College of Education graduates, schools are the eventual workplace. If schools do not have technology that the College of Education's graduates have learned to use, efforts to enhance learning through applications of technology will be limited. It is therefore suggested that these goals be used as a guide by schools as they allocate resources and make plans for the future.

Updating Goals

Technology is ever advancing, and goals that have been set and achieved may become irrelevant or obsolete. For this reason, these technology goals will be revisited on a regular basis and revised as needed.

Access

Advanced technology is useless to those without access to such technology. Although persons with disabilities can be greatly enabled by certain technologies, even the standard personal computer system can present barriers to certain users with disabilities. It is imperative that persons with disabilities have full access to technology that is appropriate for their needs.

Terminology

The concept of technology involves much more than computer hardware and software. Technology includes the full range of hardware (e.g., computers, video-cameras, overhead projectors, hardware documentation and manuals, etc.), software (e.g., presentation and instructional software, word processing programs, software documentation and manuals, etc.), particular instructional strategies (e.g., simulations, the "virtual campus", etc.). In this document the term technology is used in a broad, rather than a narrow sense.

TECHNOLOGY GOALS RELATED TO THE WORK ENVIRONMENT

The mission of the university and college involves teaching, research, and service. The technological environment should assist faculty, staff, and students in the completion of this mission. In addition, technology should aid university professionals in the administrative functions of the university. Goals related to the work environment are purposely placed first in this document because access to technology within the work place is a prerequisite to applying technology in the teaching, research, and service arenas.

1. Technology Infrastructure

Rationale: The efficient use of technology for teaching, research, and service for faculty, staff, and students is no longer an individual or isolated process. It requires the necessary infrastructure to support an efficient sharing environment for data, programs, and hardware components.

Environment Goal #1:

All buildings that house College of Education programs will have the necessary hardware and software infrastructure to support needed technologies. These hardware and software infrastructures include:

1.1 Most current cable plant hardware (i.e., communication media, routers, hubs, etc.) to efficiently support state-of-the-art technologies.

1.2 Head in devices (i.e., file servers, video distribution systems, etc.) and other centralized multiuser hardware components.

1.3 Electrical power environment (i.e., power substations, interior electric panels, conditioned power outlets where required, etc.) to support all current and future hardware.

1.4 Required software to provide an efficient and secure infrastructure environment (i.e., network operating system, security, data backup, and off-site storage capabilities, etc.)

2. Basic Office Hardware

Rationale: A number of basic technologies are useful for research, teaching, service, and administration. Easy access to these technologies can improve the quality and efficiency of work.

Environment Goal #2:

All faculty and staff will have access to a range of basic technologies. These technologies include:

2.1 workstations possessing a networked (i.e., local-area, university-wide, and Internet) desktop computer and printer in their office or convenient and accessible printing access from their office.

2.2 copiers, advanced telephone systems with voice mail, fax machines, and devices for scanning documents.

2.3 data acquisition, storage and viewing devices such as video cameras, optical disk drives, CD-ROMs, VCRs, and monitors as well as associated hardware for using this equipment.

3. Instructional Hardware

Rationale: All learning environments should promote the active construction of knowledge by providing teachers and students with the ability to use a range of effective learning technologies. Technology per se should not drive instruction, but appropriate technologies should be available for use in enriching the instructional process.

Environment Goal #3:

All learning environments will be equipped with, or have easy access to, contemporary instructional hardware. These technologies include:

3.1 networked computer workstations.

3.2 hardware for projection from computer output, such as liquid crystal display (LCD) panels, and video projection devices.

3.3 overhead projectors, audio-tape machines, and video-tape.

3.4 interactive teleconferencing and other distance education technologies as well as direct reception of film and video via cable.

3.5 physical arrangements that allow for the proper use of instructional technology (e.g. adequate control over lighting, placement of desks and computers).

3.6 computer laboratories with fully equipped workstations and printers within each building that houses an academic department of the college as well as hardware and associated software for connecting laboratory equipment with computers.

3.7 adaptive equipment as necessary for faculty, staff, and students with disabilities (i.e., sensory-enhanced hardware for computers, Braille printers, and equipment to translate written text into spoken voice).

4. Portable Hardware/Software

Rationale: The service mission of the university requires that faculty bring knowledge to schools and other entities throughout the state. Moreover, working at off campus locations is frequently required for a variety of instructional and research purposes.

Environment Goal #4:

Faculty, staff, and students will have access to portable technologies that will be used off-campus in fulfilling the missions of teaching, research, and service. These technologies include:

4.1 notebook computers, including hardware for network connectivity (e.g., modem or local area network card) and needed software.

4.2 portable projection capabilities for presentations.

4.3 video cameras and associated equipment.

5. Software

Rationale: Hardware is essentially useless if appropriate software, software documentation and manuals, and other forms of prepared media are unavailable.

Environment Goal #5:

The legal requirement of one package or license per machine will be followed in providing for software needs. Faculty, staff, and students will have access to a range of basic software programs, including the following:

-- Operating system software
-- Word processing software
-- Spreadsheet software
-- Database software
-- Desktop publishing software
-- Statistical analysis software
-- Presentation software
-- Project management software
-- Graphics software
-- Optical character recognition (OCR) and image scanning software
-- Multimedia, hypermedia, and authoring software
-- Expert systems and knowledge-base management software
-- Telecommunications software
-- Local area network (LAN) and connectivity management software
-- Utility software (virus protection, disk repair, memory management, etc.)
-- World wide web browsing software
-- Data acquisition software

6. Program-Specific Hardware and Software

Rationale: Technology in most professions continues to undergo rapid technological change. College of Education graduates should be exposed to the most advanced technology specific to their profession to ensure their ability to secure employment, function competently, and provide leadership.

Environment Goal #6:

Faculty and students will have access to profession-specific advanced technologies, such as the following:

-- Computer-assisted design (CAD) software
-- Virtual reality and telepresence software
-- Computer-based laboratory instrumentation
-- Advanced symbol-manipulation and modeling software
-- Laser and fiber optics communications equipment
-- File server access for instructional use
-- Scoring and interpretation software for psychometric measures

7. Updating the Environment

Rationale: New technology is developed and existing technologies are being improved at a rapid pace. Even dominant technologies can become obsolete in as little as five years.

Environment Goal #7:

Hardware and software used for teaching, research, and service will be updated on a regular basis, and at a minimum every five years. Updating will be more frequent in program areas where state-of-the-art technology is critical to effectiveness.

8. Security

Rationale: Given the high costs associated with the purchase and maintenance of many technologies as well as the necessity of maintaining continuous operational usage, ensuring the security of technology is critically important.

Environment Goal #8:

The College of Education will provide state-of-the-art security to prevent the loss of, and ensure uninterrupted access to, all technologies, including reliable, effective protection against the following:

-- physical theft of equipment
-- damage to equipment by electrical surges
-- infection by computer viruses
-- intentional or unintentional erasure or corruption of storage media
-- remote electronic theft of software and/or files

9. Technical Support

Rationale: Increased use of advanced technology throughout the College of Education necessitates an increased number of support personnel to install, maintain, repair, and provide assistance with such technology.

Environment Goal #9:

The College of Education will provide an adequate number of support personnel trained to install, maintain, repair, and provide technical support for the technology used by the school. Each facility that houses units with the College of Education will have access to these trained support personnel on site, and systems will be implemented to assure a prompt response when failure of hardware or software interrupts the work of faculty, staff, or students.

10. Professional Development Opportunities

Rationale: As a result of rapid advances and changes in technology, frequent continuing education opportunities are needed to maintain a leadership role in our sponsoring society.

Environment Goal #10:

Faculty, staff, and students will be provided with an adequate opportunity to update or gain new technology skills and knowledge. Opportunities will be specified at the department level, and will include:

10.1 instructional classes and workshops that provide basic skills in computer use, word processing, and electronic mail.

10.2 release time and/or re-assigned work loads to compensate faculty and staff for their efforts to develop and enhance technology-related skills and to pursue technological innovations in teaching and research.

11. Distribution of Resources

Rationale: Limited resources mean decisions must continually be made about how to allocate finite resources. Written policies regarding the distribution of resources help to ensure the fair and equitable distribution of resources.

Environment Goal #11:

All units of the College of Education will share in the funding and distribution of technology resources. Decisions about allocation of resources will be made in an objective, fair, inclusive, and equitable manner. Requests will be negotiated and decisions will be made in dialogue with program and department heads, the dean of the college, and other designated decision-makers. This process provides optimal use of technological resources within the College of Education.

TECHNOLOGY GOALS RELATED TO THE PERFORMANCE OF FACULTY, STAFF, AND STUDENTS

When given a technologically sound environment, the faculty, staff, and students are encouraged to incorporate basic as well as advanced technologies into their instruction, research, and service.

1. Basic Office Equipment Operation

Rationale: Technology in the work place is designed to facilitate routine tasks. Faculty and staff should be able to take advantage of up-to-date technological developments designed to enhance the efficiency of daily responsibilities associated with duplication, communication, and dissemination of information

Performance Goal #1:

All faculty and staff will be proficient with basic office equipment. Necessary skills include:

1.1 proper use of voice mail, and the ability to transfer telephone calls.

1.2 proper use of copiers, fax machines, scanners, and other equipment to duplicate, transfer, or translate written media.

2. Computer Literacy

Rationale: Personal computers have become commonplace in the work environment. The ability to rapidly access, create, store or distribute information is an important tool for faculty, staff, and students. Electronic networks that provide entry to databases and a means of communication give faculty and students extensive means of information exchange related to their work.

Performance Goal #2:

All faculty, staff, and students will be able to use basic personal computers and software programs. Necessary skills include:

2.1 basic maintenance procedures such as formatting disks, organizing and manipulating files, and accessing networks.

2.2 proper use of word processing programs to compose, modify, save, and print files.

2.3 translation and importation of files in alternate formats and across operating system platforms.

2.4 initiation of basic troubleshooting procedures including virus detection, undeleting, and working with backup files.

3. Electronic Communication

Rationale: Electronic communication tools provide a means to rapidly and inexpensively access and distribute information in an environmentally efficient manner. Electronic communication allows for collaboration with colleagues on a local, regional, national, and world-wide basis.

Performance Goal #3:

All faculty, staff, and students will have the ability to use electronic mail and will maintain an active electronic mail address. Electronic communication is encouraged as medium for:

3.1 transmission of all college and departmental memos and forms.

3.2 faculty-student and student-student interactions (e.g., computer conferencing outside of class hours).

3.3 faculty-staff interactions (e.g., transferring documents electronically for formatting and editing purposes).

4. Technology-Enhanced Presentations

Rationale: Effective presentations through the use of instructional technology can enhance the learning process. Presentations that are accomplished through a functional mix of resources will provide a broader spectrum of knowledge, streamline the integration of principles and themes, and stimulate analytical, critical, and constructive thinking as well as creative problem solving.

Performance Goal #4:

All faculty, instructional staff, and students involved with instruction will be proficient at using appropriate electronic technology for instructional and formal presentations. These skills will include:

4.1 use of alternative forms of media to enhance presentations and/or performances (including graphics, video slide shows, and interactive video).

4.2 selection and/or development of appropriate educational software designed specifically for use in teaching courses (i.e., courseware) that takes into accounts the needs and learning styles of learners.

4.3 selection and/or evaluation of hardware that supports any chosen educational hardware.

4.4 use of teleconferencing and distance learning technologies.

5. Data Management and Analysis

Rationale: Effective performance in the academic work place requires the ability to access and carefully analyze information as well as to effectively problem solve. Improvements in technology have dramatically changed data acquisition and analysis techniques. These developments have had an impact on commonly performed tasks ranging from the manner in which statistical analyses are completed to the preparation of documents for publication.

Performance Goal #5:

All faculty, staff, and students will be proficient with data analysis and management appropriate to their field of study or job expectations. Necessary skills include:

5.1 the use of data acquisition tools appropriate to areas of expertise or job expectations.

5.2 the retrieval of information from databases, on-line catalogs, and other forms of electronic storage.

5.3 the use of data analytic software appropriate to areas of expertise or job expectations.

5.4 the creation, use, and interpretation of graphic representation of data.

6. Administration and Advising

Rationale: Much of the work done at a university involves time and labor intensive record keeping, data collection, information distribution, and other administrative tasks. In today's environment, technology is used to streamline administrative tasks at all levels, but too often requires faculty, staff, administrators, and students are required to fill out reports by hand or use forms designed to be completed using a typewriter. Technology needs to be used to ease this administrative burden.

Performance Goal #6:

All faculty, staff, administrators, and students will be able to use technology that can replace paper for simple administrative functions. These include:

6.1 The use of electronic mail and network file transfer capabilities for communication including memos, announcements, and administrative approval forms.

6.2 the use of electronic databases for departmental record keeping and student advising.

7. Profession or Program-Specific Skills

Rationale: Technologies associated with the work place are often specific to a particular field. Faculty, staff, and students should have knowledge and skills with technologies that are used in their field.

Performance Goal #7:

All faculty, instructional staff, and students will be proficient at using technologies specific to their chosen field. Necessary skills include:

7.1 proficiency in the use of equipment and software that are commonly found in the work place for entry-level positions in a particular field.

7.2 familiarity with advanced technology used in professional practice in a particular field.

8. Continuing Education

Rationale: Software and hardware advances are continuously occurring. These advances can dramatically improve teaching, research, and service. Faculty, staff, and students need to stay abreast of advances in technology.

Performance Goal #8:

Faculty, staff, and students will update their knowledge about, and skills related to software and hardware in order to take advantage of the most current technology. These efforts will include:

8.1 maintaining an awareness of the computer resources and software available through a variety of sources, including campus sources such as the College of Education's Faculty Development Center and the University's Microcomputer Support Center.

8.2 participation in applicable computer training opportunities provided by the University, College, its departments, or programs, or by professional associations.

9. Societal Impact

Rationale: Computers have brought new opportunities and benefits to society. By their nature, computers have increased concern over such enduring issues as privacy and freedom of information. They have also spawned new ethical and legal problems (intellectual property issues, copyright protection, high tech criminal activities such as electronic embezzlement, vandalism associated with computer viruses, etc.)

Performance Goal #9:

Faculty, staff, and students will be acquainted with the societal issues related to the development of information technology. Items included under this goal are:

9.1 knowledge of and compliance with software copyright laws.

9.2 knowledge of and compliance with ethical computer practices.

9.3 knowledge of and compliance with accepted conventions associated with electronic communications.

9.4 recognition of illegal uses of computers and willingness to report such activities to the appropriate authorities.

9.5 knowledge of technological resources which facilitate equity, access to information, and educational opportunity for persons with disabilities.

10. External Technology Funding

Rationale: Ever-changing, state-of-the-art technology is expensive and internal funding alone can rarely support all needed state-of-the-art technologies. Funds from a variety of external sources are an essential part of a technology environment.

Performance Goal #10:

Faculty and staff are highly encouraged to actively seek external sources funding to augment the technology purchased through internal funds.