

INDIANA UNIVERSITY NORTHWEST

INFORMATION TECHNOLOGY PLAN

1999/2000 - 2001/2002

1. Vision--Information Technology at Indiana University Northwest

In his Foreword to Architecture for the 21st Century: An Information Technology Strategic Plan for Indiana University, Vice President Michael McRobbie notes that Information Technology permeates every aspect of the university from the first contact a student has with its Web site through the myriad systems that manage and provide access to its information; through the desktop computer--now such a fundamental part of the daily life of a faculty and staff member; the intricate web of fiber optic cables that link these computers together and connect them to the world of digital information... the wired classrooms... and student laboratories which are now such a fundamental component of the educational process. There is no longer argument about the importance of a fully developed information technology infrastructure for universities.

Indiana University Northwest will respond to the challenge presented in this strategic plan for Information Technology at Indiana University by providing full technology support to students as they study and learn, to faculty as they teach and do their research and to the staff who support students and faculty. IUN's ability to do so is significantly enhanced by the IT support and assistance it receives from the campuses in Bloomington and Indianapolis.

The central element in IT support for students at IUN will be the computer laboratories with regularly and systematically upgraded hardware, a full range of software, and robust Internet connectivity. While many students have computers at home or at work, and portable computers provide special advantages, many other IUN students will continue to rely on IUN to provide computers for their use. For those students who do have computers at home or in their offices, off-campus access will be quick, and reliable, with help available when problems occur.

Several classrooms will be built with full multi-media instructing stations and multiple computer workstations which allow student interactivity with software and the instructor. Software in these classrooms will allow visualization, interaction, and rapid computation.

A computer workstation is an absolute requirement for faculty as they teach, do research, and deliver service. These stations will be powerful enough to store and manipulate graphics and video and will be connected to a campus network with enough bandwidth to deliver video rapidly. They will be replaced regularly through the availability of life cycle funding. Staff also will be fully supported with the IT their responsibilities require. The priority for staff support will be ready and seamless access to IU production systems and information databases.

With the appointment of a Vice President for Distributed Learning, Indiana University has responded to the evolving delivery of college education through technology. IUN has developed significant expertise

through its TV studio and more recent delivery of classes to high schools and its site in Schererville. Additional classrooms will be put in place to allow the further development of this mode of delivery at IUN. Of equal importance, a program and supporting staff to train and assist faculty to teach effectively in this new environment will be put in place.

Not only has the locus for student participation in higher education broadened, but also information formally held within the library has become more widely available. The library which just 20 years ago was primarily a storehouse is providing more and more services to faculty and students in their offices, laboratories, and homes. The library at IUN will increase the number of electronic sources it is delivering and, of equal importance, continue to organize these sources and their delivery in a manner that will assure effective use by students, faculty and staff.

Finally, a full range of training opportunities will be available to students, faculty and staff. The continuing and rapid development of hardware and software and their applications in higher education require a broad, ongoing training program or students, faculty and staff will become well equipped but poorly informed IT users.

II. IUN's Environment

There is extraordinary competition for college students in Northwest Indiana. The establishment of a junior college system in Indiana has begun, and the other colleges in the region are marketing aggressively and expanding the number of their sites. Illinois private and proprietary colleges are setting up campuses in Northwest Indiana. Residential colleges see the area as a prime source of students.

Increased funding for Indiana colleges remains unlikely. Higher education in Indiana continues under close scrutiny and there is no evidence of interest in the legislature for significantly increased support for colleges. There is an expectation in the legislature that new programs will be funded through reallocation. An exception is the ~~1%~~ special allocation for technology support at IU.

In choosing a college, potential students see work place benefits--a good job or advancement, as the prime reason for attendance. Employers seek recruits with communication skills, and critical thinking ability along with a good understanding of their major area of study. Licensing, and professional certification, as well as on-the-job training to keep up with workplace change are creating a demand for continuing education.

IUN students are showing themselves ready for alternate modes of class delivery. They are reacting favorably to both the Virtual Indiana Classroom (VIC) classes received at IUN and the classes delivered from IUN to its Schererville site. Also, they are responding positively to the use of e-mail and Web pages as supplements to classroom interaction.

A robust Information Technology infrastructure can both assist the university to address the threats presented by the current environment and position the university to take advantage of opportunities there. Prospective students expect a broad IT presence at universities and are impressed if they discover a university that provides more than others. The Distance Education market is just developing and so provides opportunities for enhanced enrollment. Of most importance, properly implemented and supported IT can improve the quality of the education offered and of the learning that occurs at IUN.

III. IUN Technology Today

1. Computer and Communications Services.

A network of microcomputers placed in offices, work rooms, and laboratories throughout campus provides access to the campus local area networks, the Indiana University network, and the Internet and its resources. There are eleven general purpose clusters/laboratories for classroom and/or student use all of which are fully networked. The lab machines are replaced every three years; funds for replacing four labs in the summer of 1999 have been allocated. The Divisions of Nursing and Allied Health have small clusters. There are e-mail kiosks in Hawthorn and in Moraine. Computer workstations (microcomputer, monitor, printer, and office software), either PC or Macintosh, connected to the campus network are available to every faculty and staff member.

The standard OS for PC's is Windows 95; migration to Windows 98 will begin in the summer of 1999. Since 1994 the university, has had complete and unrestricted access to Novell network and productivity software (COREL) for all faculty, students and staff. In 1998, the University signed an agreement with Microsoft making its software readily available to students, faculty and staff.

The campus network consists of two mail Novell servers, several NT software servers, the Web server (NT) and the recently installed NT server for the Noel-Levitz project. Fiber optic cabling connects all buildings, CAT 3 Standard copper wire makes up the infrastructure within buildings.

Training in the use of computers is provided to students, faculty and staff through a set of regularly scheduled classes, special sessions scheduled on request, and through instruction within courses requiring the use of computers. Paper documentation for the classes as well as training video tapes are available to those who prefer to study on their own.

In 1997 a full time Webmaster was appointed. There has been major development of IUN's Web site since then. In 1999, a full-time Help Desk Manager position was created and staffed. Development of a Web help database and access to the IU knowledge base are first priorities.

B. Instructional Technology.

The Instructional Media Center (IMC) provides a wide range of media support services utilized by students, faculty, staff and administrators for classroom support, distance education, media presentation, meetings, teleconferences, research and other educational endeavors. These media support services include traditional as well as state-of-the-art technologies in presentation and production areas.

Presentation includes traditional AV equipment such as projection, audio, video and microcomputer. Video playback has various formats; satellite programs, and microwave and other land based transmission reception are available. Indiana Higher Education Telecommunications system (IHETS) programming is available. The IMC maintains a closed circuit TV system for transmission of these programs campus-wide.

Six classrooms are equipped with projection TV's, with three portable projection TV's used to service other areas. The inventory of instructional support equipment includes twelve color monitors and videotape playback units, eight video copy stands, three laser disc players and seven computer output projection carts. Also, three carrels, each accommodating two users at a time, are equipped with user controlled multi-media technologies including audio (tape and CD) and videotape playback and interactive laser discs.

The IMC offers media production services; these include video production services--idea development, script writing, directing, video taping, editing and duplication. Other video services include off-air and satellite, in classrooms and in the TV studio, and duplication in a variety of commonly used formats. The

campus TV studio is used to produce distance education courses, classroom videotapes, student and faculty projects and university and public service programs. Photographic slide production is also provided. Slides are produced and duplicated from original computer generated graphic designs, photographs (original and duplicates) and book copies. Audio services include recording, editing and duplication. Faculty are also assisted with the preparation of desktop publishing and presentation.

Three rooms are equipped for two-way interactive audio and video. These rooms are used for classes and meetings between twenty-nine (29) university campus sites, classes to the IUN site in Schererville, to high schools on the Athena network and can also be connected by way of ISDN to any site world-wide that has similarly equipped facilities. Also, one room, B102, is equipped with full multi-media support.

3. Voice Communications.

Computer and Communications Services maintains the campus PBX. The voice mail system was upgraded in December, 1996. A new expanded dial-in service was established in 1997.

GOALS

IV. Goals

The vision, full Information Technology support for students, faculty and staff at Indiana University Northwest, is described at the beginning of this plan. Here, the plan lists the goals IUN must achieve if IUN's vision for IT support is to become a reality. Each goal encompasses several more specific subgoals. The plan ends with a set of objectives for 1999/2000 which, if achieved, will contribute most to progress toward this vision during the upcoming year.

Goal 1. Resources necessary to meet the goals listed here will be provided.

Subgoal 1. An annual budget for IT support will be prepared previous to each year just as a budget is prepared for all other campus activities.

Subgoal 2. Replacement cycle funding will be maintained.

Goal 2. Students' learning will be assisted and enhanced through the use of state-of-the-art computer hardware and software.

Subgoal 1. There will be enough student computer labs to make certain that all faculty needing a lab for a class will have one, and that all students needing the use of a computer will have access to one.

Subgoal 2. Each lab will be equipped with the software judged necessary by the faculty.

Subgoal 3. Lab equipment will be kept operational.

Subgoal 4. Lab workstations will be networked to off-campus sites so that students will have access to appropriate computer resources wherever those resources are located.

Subgoal 5. A series of classes along with tutorials will be available so that all students will have the opportunity to learn to make the best use of the technology available to them.

Subgoal 6. The university will seek to obtain and make readily available technology which meets the special needs of the physically disabled and challenged students.

Subgoal 7. Consultants will be made available to assist those students who have difficulty when using computers.

Subgoal 8. The campus will provide a means of access to computing and network services for students who prefer to use computers off-campus.

Goal 3. Teaching and learning will be supported by state-of-the-art instructional technology.

Subgoal 1. The Instructional Media Center will continue to provide traditional AV equipment requested by faculty.

Subgoal 2. Several classrooms will be equipped with hardware to allow multi-media presentations including video, and graphics. Concurrently, the Instructional Media Center will have adequate hardware to support enhanced use of still and motion video and graphics in classrooms not so equipped.

Subgoal 3. All classrooms will have Internet connectivity.

Subgoal 4. The Instructional Media Center will provide classroom IT support for faculty in the form of equipment repair and maintenance, consultation, and training.

Subgoal 5. IUN will have classrooms equipped with interactive computer/multi-media stations for each student and the teacher.

Goal 4. Faculty will be provided with the computer hardware, software, and network access required to achieve full benefit of computer technology for their research, teaching, and service.

Subgoal 1. A computer workstation along with the software required for teaching, research and service will be provided to each faculty member.

Subgoal 2. All faculty requiring access to computer systems and/or colleagues beyond IUN will be provided with this access.

Subgoal 3. When access to remote computers or databases requires the payment of fees, faculty will be provided a method for requesting funding support.

Subgoal 4. Faculty will be provided off-campus access to computing, data storage, and information and network services.

Goal 5. Faculty will be given the opportunity to learn about computer and instructional technology and to integrate the hardware, software and related technologies into teaching, research, and service.

Subgoal 1. There will be a formal program through which faculty can be introduced to new technologies and their use.

Subgoal 2. An ongoing training program will provide faculty instruction in the use of available hardware and software.

Subgoal 3. There will be a program through which faculty will be provided the time needed to adapt their teaching, research and service activities to take advantage of computer and instructional technologies.

Goal 6. Administrators, managers, and their staffs will have the technology support their duties require.

Subgoal 1. Each administrator, manager, and administrative support staff member will have a microcomputer and the software required to adequately perform his/her job.

Subgoal 2. All administrative personnel will be networked with similar offices on other campuses, and with central databases of relevance to their responsibilities.

Subgoal 3. An instructional program will be provided so that administrative staff may both learn how to operate existing systems and software, and upgrade these skills as new computer products become available.

Subgoal 4. Technology will be used to improve communications on the campus.

Goal 7. IUN will support a local network which will give rapid and full connection between computers on the IUN campus, and with computers beyond the campus.

Subgoal 1. The IUN network will be an open system so that faculty, staff, and students with hardware using standard protocols will have access to the local network and to all those stations on this network and beyond.

Goal 8. Each user will be provided with the support required for ongoing and effective use of campus technology.

Subgoal 1. Assistance for hardware and software problems will be immediately available from a Help Desk.

Subgoal 2. There will be a repair and maintenance program which will provide fast response to and rapid solution of campus supported equipment, software and network problems.

Subgoal 3. Printed and electronic documentation on the use of applications software and on network access and use will be made available.

Goal 9. IUN will have the technological capability to deliver classes to off-campus sites, and the necessary support mechanisms so faculty and students can use this technology beneficially.

Subgoal 1. The Instructional Media Center TV studio will be equipped to produce TV classes.

Subgoal 2. IUN's electronic network will be capable of delivering data, graphics and video to distant sites.

Subgoal 3. IUN will have classrooms equipped to receive and to deliver classes using interactive video.

Subgoal 4. There will be an adequate number of support personnel for the delivery of courses off-site.

Subgoal 5. Training and production support will be provided to IUN faculty who teach courses offered electronically off-site.

Goal 10. Following its service mission, IUN will provide IT assistance to organizations in IUN's communities as resources allow.

Subgoal 1. Computer and Communications Services will provide consultation to schools, health and human services organizations, and government agencies and businesses.

Subgoal 2. Indiana University Northwest will develop partnerships with school, community centers and government agencies for the purpose of using technology to deliver IUN courses.

1999/2000 OBJECTIVES

This list specifies the new or enhanced technology support activities considered of most importance for 1998/99 by the Technology Council. The list is primarily new activities and projects although some ongoing activities are listed because of their importance. The list is not prioritized; priorities will be shown in the budget recommendation which follows the objectives.

Goal 1. Resources necessary to meet the goals listed below will be provided.

1. A \$200,000 technology budget (beyond maintenance budgets for Computer and Communications Services and the Instructional Media Center) for software, infrastructure, and life cycle funding for hardware. (First listed 97/98)
2. Technology resources allocated following the plan approved by the Technology Council. (First listed 95/96)
3. Preparation of a budget for technology at the time other campus budgets are prepared. (First listed 95/96)

Goal 2. Student learning will be assisted and enhanced through the use of state-of-the-art computer hardware and software.

1. Replace hardware in B202, B212, E230, G134. (Funding allocated in 98/99)
2. Create a GIS lab/classroom. (Funding allocated in 98/99)
3. Build a computer lab at the Portage site. (Funding allocated in 98/99)
4. A Modern Languages lab.
5. Software recommended by the Computer Committee in every general lab.

6. Reliable e-mail for students --network upgrade, new e-mail system. User friendly assistance in setting up this access on student machines at home or at work.
7. Funding for hardware and software for the lab in the Academic Activities Building. The lab will have both PC's and Mac's. Order hardware and software with sufficient lead time for installation when the room is ready.
8. Upgrade lab monitors to consultants.
9. Support for faculty to develop and use the Web to communicate with their students. (First listed 97/98)
10. Small rooms for video taping student practice and reviewing these tapes.
11. Support for disabled and challenged students. (First listed 97/98)
 1. Improved technology access for visually impaired
 2. Improved technology access for those with mobility impairments
12. Library computer repair and replacement budget.
13. Budget line for the replacement of library online catalog stations.
14. Electronic library reserve.

Goal 3. Teaching and learning will be supported by state-of-the-art instructional technology.

1. Study classroom technology needs at IUN; ask the Teaching and AV Committee to prepare a report by January, 2,000. (First listed 97/98)
2. An IMC repair and maintenance budget for classroom technology.
3. A computer cart for each of the Portage and Schererville sites.
4. Two additional computer carts for on-campus use.

Goal 4. Faculty will be provided the computer hardware, software, and network access required to achieve full benefit of computer technology for their research, teaching, and service.

1. Upgrade faculty workstations to the level required for each faculty member's teaching, research and service needs. (1999/2000 25% of faculty will receive upgrades.)
2. Funds for division approved requests from faculty for software:
 1. For examination

2. For use by students in class and/or labs.
3. Creation and organization of a Teaching and Learning Information Technology Lab for faculty to explore new uses of computer hardware and software.

Goal 5. Faculty will be given the opportunity to learn about computer and instructional technology and then to integrate this hardware, software and related technology into their teaching, research and service.

1. Training program which includes:
 1. Printed documents
 2. Regularly scheduled classes
 3. Electronic tutorials
 4. Special attention to the World Wide Web
2. Instructional Media Center assistance for faculty interested in enhancing classroom presentations with instructional technology--creative direction, planning and instructional design assistance.
3. Summer faculty fellowships for the redesign of classes to take advantage of instructional technology.
4. An instructional design specialist in the Instructional Media Center. (First listed 96/97)

Goal 6. Administrators, managers, and their staffs will have the hardware, software and network access required to obtain full benefit of technology for their operations.

1. Upgrade clerical/professional/technical staff workstations not upgraded in 97/98 or 98/99.
2. Continued implementation of the Financial Information System.
3. Formal classes and tutorials which teach campus approved/supported hardware and software.

Goal 7. IUN will support a local network which will give rapid and full connection between computers on the IUN campus, and with computers beyond the campus.

1. A budget line for network support. (First listed 95/96)
2. Upgraded network and new e-mail.

3. A network Administrator for messaging.

Goal 8. Each department and user will be provided support for ongoing and effective use of campus technology.

1. Additional Mac Technician.
2. Printed and electronic documentation on the use of applications software and network access and use.
1. Training schedules published monthly
2. Brochures (trifolds) on specific topics as needed
3. Tutorials
3. Classes on attachments to e-mail and decoding options added to the computer education course offerings (First listed 97/98)
4. Systematic and routine user evaluation of Computer and Communications Services and of the Instructional Media Center.
1. Publish service mission statements and standards for the Instruction Media Center and Computer and Communications Services.
2. Develop and implement an assessment which will include a periodic evaluation of these units based on their achievement of mission statements and standards.
5. Expand and intensify technological training programs for technology staff. (First listed 97/98)
1. Fund a recurring line item in budget to provide funds for training technicians.

Goal 9. IUN will have the technological capability to deliver classes to off-campus sites, and the necessary support mechanism so faculty and students can use this technology beneficially.

1. New equipment. Two replacement TV cameras. (First listed 94/95)
2. B102 wired for receiving and delivery of distance education classes.
3. Instructional Media staff consultation for faculty who wish to offer TV classes, and assistance for those faculty who do so.

Goal 10. Following IUN's service mission, provide assistance to organizations in IUN's communities as resources allow.

1. Continuing development of IUN's use of the Vision Athena.

1999/2000 Information Technology Priorities for New Funding

Recommended by the Technology Council

(In Order of Importance Within Each Category)

CAMPUS BASE BUDGET, RECURRING

1. Budget line for network support (primary use in 1999/2000 - upgrade e-mail) \$50,000
2. Network Administrator for Messaging \$40,000
3. Budget line for training for IT staff \$15,000
4. Life cycle funding for faculty computers \$50,000
5. Life cycle funding for clerical, technical, professional/administrative staff computers \$50,000
6. Additional Mac Technician \$35,000
7. Instructional Media Center repair budget \$10,000
8. Library computer repair and replacement budget \$ 5,000
9. Instructional Design Specialist \$35,000
10. Budget line for the replacement of library online catalog stations \$ 6,000
11. Funds for software requested by faculty \$10,000

CAMPUS BASE BUDGET, ONE-TIME

1. Network upgrade (to 100mps) \$100,000
2. Teaching and Learning Lab (Note: Will

require a full time IMC staff member--

Instructional Design Specialist. See above) \$30,000

3. B102 wired for receiving and delivering

distance education classes \$93,000

4. Small rooms for video taping \$ 5,000

5. Modern Languages lab \$30,000

6. Two TV cameras for the IMC \$35,000

TECHNOLOGY FEE BUDGET, RECURRING

1. Software recommended by the Computer Committee

for the general labs \$20,000

2. Funds for upgrading monitors to consultants \$30,000

TECHNOLOGY FEE BUDGET, ONE TIME

1. Technology for off-campus sites (computer carts) \$14,000

2. Two computer carts \$14,000

3. IT access for those with mobility impairments \$ 1,000

4. Academic Activities Building computer lab

hardware and software \$67,500