

# **Information Technology**

## **Strategic Plan**

**2005 - 2009**

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**December 2004**

**Ashland University**  
**Information Technology Strategic Plan**  
**2005-2009**

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# Ashland University

## Information Technology Strategic Plan

2005-2009

### **Background and Introduction**

The mission of Ashland University (AU) focuses on serving the educational needs of each student by providing high quality programs that incorporate high expectations of achievement in a challenging and supportive environment. Technology is a key component of the educational experience at AU and a sizable portion of the annual budget is allocated to its effective use in promoting the mission of the university. Technology touches many aspects of our daily lives and institutions that employ effective and efficient methods of using technology have an advantage over those that are struggling with it. Technology has moved from novelty to necessity in a very short time. This rapid adoption rate and our inherent reliance on technology often bring technological shortcomings to the forefront. To counter the adverse impact of these shortcomings it is important that institutions adopt a strategic view of technology, implement plans to address the ever changing needs for technology, and assess the evolving technology alternatives available to meet these needs.

**Technology  
Imperatives**

In 2001 Ashland University made a substantial commitment to treat information technology as a strategic asset. This commitment was made to ensure technology would be used effectively and efficiently to support the goals of the students, faculty and staff of the university. The two units supporting technology at AU (Administrative Computing and Academic Technology) were merged into one unit called Information Technology (IT). This unit was brought under the leadership on an Executive Director of Information Technology. As a member of the Cabinet and a direct report to the President, this position is attentive to the needs of the AU community and ensures that the mission and goals of the IT department are aligned with those of the university. Additional commitments in funding and staffing resources have allowed the IT department to implement many highly visible projects and programs, which benefit the institution. Today, the annual budget for the Office of Information Technology is approximately \$3 million with about half allocated for labor and half for technology maintenance, enhancements, infrastructure, training, and support.

**Formation  
of IT**

### **Strategic Planning Methodology**

Strategic planning is a process designed to clarify what an organization is, what it wants to be, and charts the course for how the organization can successfully make the transition. A strategic technology plan provides technology directions and a management strategy taking into account the changing internal and external environments. It also sets the philosophy and direction for the use of information technology within the university.

The Ashland University Strategic Technology Plan for 2005-2009 was developed by the Executive Director of Information Technology working in concert with key IT department directors. This is the first strategic technology plan designed for Ashland University and the scope of participation was kept at a minimum to expedite conception and implementation. This initial plan also draws on interactions with students and faculty as well as from meetings with Center Directors from the many Ashland Regional Centers. The Information Technology Advisory Committee was formed in October 2004 will be a valuable resource allowing a cross-functional team to be involved in future annual updates to this technology plan.

The planning approach employed for this Information Technology Strategic Plan requires the following steps:

- Development of a “future state” vision of how information technology resources and services should support and enhance the mission, vision and goals of Ashland University.
- Identification of both driving and restraining forces. These forces either serve to move us forward strategically with the use of information technology or create obstacles that must be overcome for technology to be used effectively.
- Development of planning assumptions that detail the current Ashland University environment from budgetary, cultural and technological perspectives.
- Establishment of the “foundations of technology” providing direction and prioritization for the Office of Information Technology and are aligned with the mission and goals of Ashland University.
- Development of goals and strategies to enable the university to move forward toward its desired “future state”. These goals and strategies are detailed in the applicable “foundation of technology”.

## **Planning Methodology**

### **Future State of Information Technology**

The current state of Information Technology is strong at Ashland University. The IT department enjoys a relatively stable budget and benefits from the wisdom of an engaged student, faculty and staff community. Technology is viewed as a strategic asset and a means of meeting the expanding needs of the university. As the needs of the university community grow the technological needs will grow as well and the Office of Information Technology will be looked to for leadership and guidance. Establishment of mission and vision statements set the tone of action for the department and they let everyone know what the IT department is about and what is seen as the future of Ashland University. Further defining the mission and vision of IT are the roles and goals of Information Technology.

## **Future State**

## **Information Technology Mission Statement**

The mission of the Ashland University Office of Information Technology is to provide appropriate technologies, the effective application of these technologies, and the professional staff required in support of technology as it relates to the mission, vision and goals of Ashland University.

**Mission**

## **Information Technology Vision Statement**

The Office of Information Technology is committed to developing a technology-enabled learning community that is fully versed in the use and application of computing resources to effectively and efficiently accomplish the goals and mission of Ashland University. The Office of Information Technology is a customer oriented department and a shared resource for all areas of Ashland University.

**Vision**

## **The Role of the Office of Information Technology**

The Office of Information Technology serves the Ashland University community in many ways but, generally, the IT roles can be categorized as the following:

- Assessment of new and emerging technologies,
- Adoption of these technologies and associated challenges/impact,
- Effective and efficient use of new technologies,
- Sustaining adopted technologies, and
- Migrating from older technologies

**Role of IT**

## **Information Technology Goals**

- A customer service oriented organization focused on meeting and exceeding customer needs.
- Listen to the AU community – participate in student, faculty, and staff discussions to continually assess technology needs and perceived level of service provided
- “Forward-looking” approach in the assessment of technology options and implementation of “best fit” solutions for the Ashland University community.
- Use of “total cost of ownership” in technology recommendations.
- Provide technology support and consultation for campus-wide initiatives.
- Provide a comprehensive technology training program for Faculty and Staff members.
- Provide knowledgeable staff and technology resources for Faculty to be successful in the use of new as well as established teaching methods.
- Provide a responsive and knowledgeable response team for technical issues (Helpdesk and Client Services).
- Provide for a stable and secure network computing (data, web, email, etc.) environment.

**IT Goals**

## **Driving and Restraining Forces**

The following is a list of driving and restraining forces at Ashland University that have an impact on the development and implementation of the university-wide information technology strategic plan. Driving forces are issues or circumstances that tend to push the university to explore and use information technology while restraining forces tend to be obstacles to the adoption of information technology.

### **Driving Forces**

- Increasing technical proficiency of entering students and the need for graduating students to be proficient in technology.
- Development of online programs (online MBA) and increased adoption of online content for existing programs.
- Construction of new facilities with technology enabled classrooms; new technology drives the demand for additional technology.
- Many faculty members are equipped with laptops and tablet systems and are willing to use this technology in the classroom.
- Competition in the marketplace for students.
- Expansion of Regional Centers means increased technology support needs
- Expanded use of video conferencing system for content delivery.
- Ashland University is a “high Touch” environment and will maintain our “Accent on the Individual” focus.
- Network stability and expanded Internet access.
- “Online all the time” society – Students expect administrative services to be fully online and expect components of the classroom experience to be online as well.
- Admissions is working hard to put more services online for students and to better manage perspective student candidates.
- A stable technology funding formula (Operating Allocation, Revenue Allocation and Technology Fees).
- Help Desk system and other tools to help measure productivity of Information Technology services.
- Implementation of policies and procedures associated with technology resources.
- Knowledgeable technology staff and ample pool of student workers .
- Development of technology committees and team to address technology needs and issues (IT Advisory Committee, Student Computing Initiative Committee, Database Committee, Software Coordinating Committee, and Strategic Planning Committee).

### **Restraining Forces**

- Adoption and enforcement of university wide software and hardware standards has been difficult (i.e. Wordperfect, Presentation, Hand Held Systems).
- Lack of strong marketing and branding leads to differences in the look and feel of web and print media.
- Technology refresh for administrative systems is not a baseline budget item.
- Budget allocation for ongoing operations (maintenance contracts, software support) has not kept pace with vendor increases.

**Driving  
Forces**

**Restraining  
Forces**

- Budgeting for technology to be included in new/renovated facilities is not considered in the overall construction costs.
- Additional IT staff members are needed to keep up with the technology being installed at the Regional Centers and in the new facilities at the Ashland University campus.
- Retention of skilled IT staff will become a significant issue when the local economy improves and companies begin hiring.
- Faculty adoption of technology has not been universal and varies greatly between colleges and departments.

### **Planning Assumptions**

The following is a list of planning assumptions about the Ashland University environment. These assumptions are intended to reveal the internal and external environmental factors having an impact on the implementation of an information technology strategic plan. This strategic plan is considered a “living document” and will be updated and modified as assumptions, goals, strategies and objective change. This change process will be come about through an annual review process.

### **Planning Assumptions**

#### **Assumptions – Ashland Students**

- Technical knowledge of and desire for technology based services is growing.
- Have a growing interest and desire for a technology enhanced classroom experience.
- The need for resources at the Regional Centers will increase.
- Students expect the same services available at the AU campus will be available at the Regional Centers.
- Most AU students (undergraduates) come to campus with a PC or laptop.
- Technology is seen not a luxury but as a necessity for most students.
- A stable network and Internet connectivity is consider a given by students.

### **Student Assumptions**

#### **Assumptions – Faculty and Staff**

- Faculty and staff need convenient and reliable access to technology in their work areas (office and classrooms).
- Timely and knowledgeable IT support staff members are the key to productivity in the classroom and in the office.
- Almost all functions within the university require a degree of technical literacy.
- Training is important to the acquisition and refinement of technology skills.
- Faculty will be inclined to incorporate technology in their classes if given recognition, incentives and rewards to do so and appropriate training and support.

### **Faculty & Staff Assumptions**

#### **Assumptions – Ashland University Culture**

- The Ashland University Cabinet values technology as a strategic asset.
- The Regional Centers needs often differ from AU campus.
- Graduate students outnumber undergraduates by over 2:1.

### **AU Culture Assumptions**

- Budgets over the next several years will be tight and funding for new positions will be minimal.

### **Assumptions – Technology**

- Technology has not reduced the number of staff needed but has allowed the departments to do new things.
- The university has made significant strides in the deployment of technology in the classroom.
- The development of policies and procedures lags behind technology.
- Some faculty view technology as being unreliable or unavailable.
- Technology is not an end but is a means to an end and is always changing.
- Technology benchmarks should be used and effectively measured and metrics developed.
- Some systems at the university are “cutting edge” while others lag behind.
- Although the “per unit” price of technology is decreasing, the overall cost of ownership is increasing.

### **Technology Assumptions**

### **Assumptions - Technology Support**

- Technology staffing is being outpaced by the adoption, deployment and use of technology at the university.
- Staff support needs are not fully taken into consideration when deploying technology.
- The roles of and requirements for information technology support staff will continue to change.
- The technology support function at the university is centralized.
- Formation and use of various IT committees will help improve the support structure at the university.
- Part-time/graduate students and undergraduates place equal demands on the technology services and resources of the university.

### **Technology Assumptions**

### **Assumptions - Teaching and Learning**

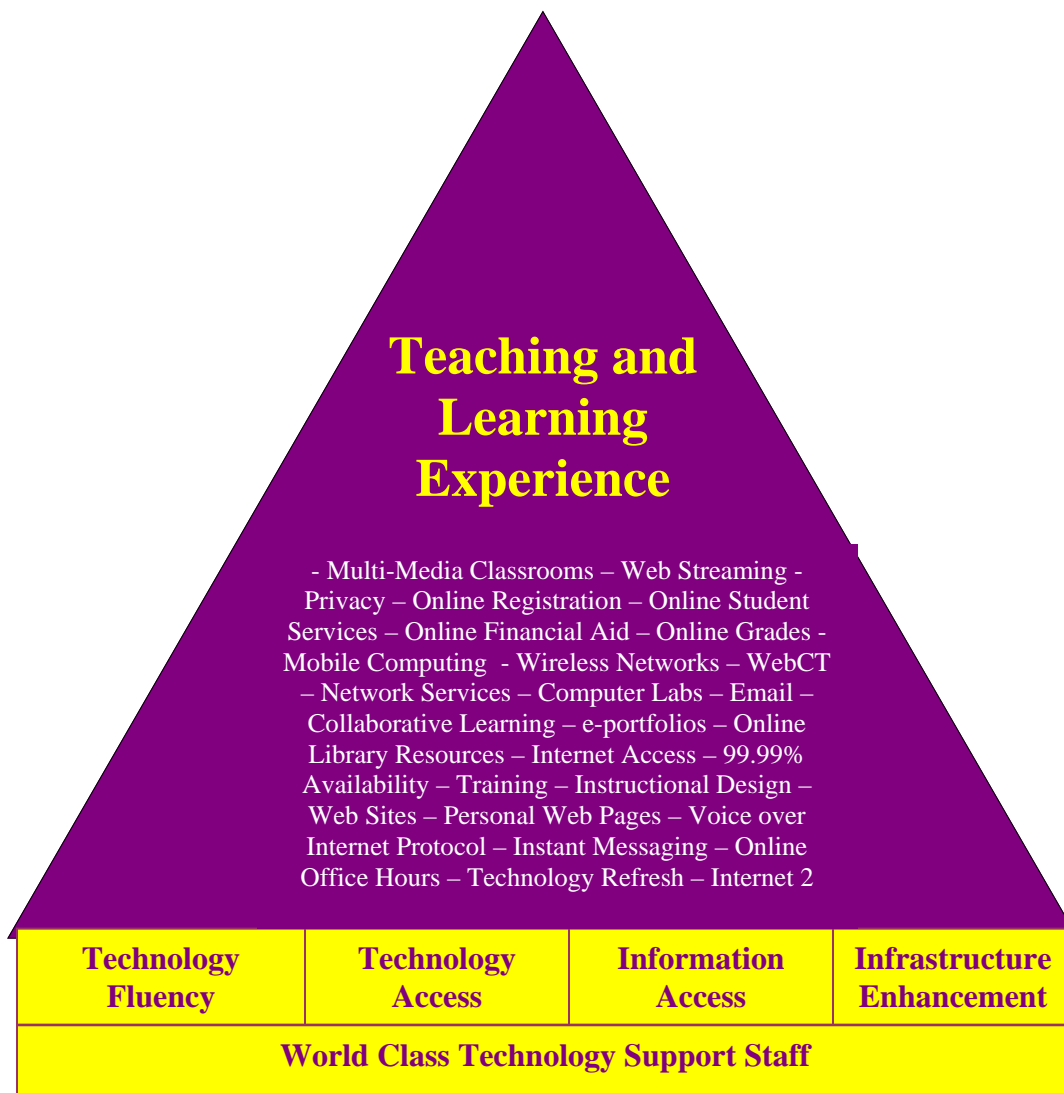
- Learning and instructional styles vary and flexibility is the key to a successful educational experience.
- Most students expect a technology aspect to their classroom experience.
- Many faculty members are looking for new and more effective ways to bring content to students.
- Training faculty on classroom technology will result in use in the classroom.
- Training of part-time or adjunct faculty is a challenge.

### **Teaching & Learning Assumptions**

### **Information Technology Foundations**

Enhancing the teaching and learning experience is of paramount importance for the Office of Information Technology. The development of core underlying goals is key to moving technology at Ashland University to the “future state”. These foundations are

based on the mission and vision statements, driving and restraining forces, and planning assumptions and encompass many major technology initiatives (note – initiatives are pending appropriate funding). A solid and strategic foundation provides the Ashland University community the technological tools required to be successful. This foundation includes Technology Fluency, Technology Access, Information Access, Infrastructure Enhancement and a World Class Technology Support Staff.



**Foundations of Technology**

**Technology Fluency**

Graduating students that are fluent in the tools of the 21<sup>st</sup> century is a key goal of any university. Increasingly, these tools are technical in nature based not only new breeds of hardware and software but employing new methods of communication and productivity. Exposure to these tools is essential to the teaching and learning process. One way to promote this exposure is to ensure faculty members have a high degree of technical fluency. Investments to achieve this goal include the Education Technology Center, faculty training, and “smart” classrooms. Future strategic projects include:

**Technology Fluency**

## Teaching and Learning Center

- **Center for Teaching and Learning** – Over the next few years Ashland University will explore the options of developing a Center for Teaching and Learning. This Center would be a valuable resource for faculty and students as it would bring together many of the resources now distributed throughout the campus into one area designed to help enhance the teaching and learning experience.

## Technology Grants

- **Technology Grant Proposals** – The Office of Information Technology, working in conjunction with other university departments, would offer a series of faculty grants to encourage the use of distance learning resources and the use of technology in the delivery of courses.

## Faculty Support

- **Instructional Support Group Enhancements** – Additional student workers and funding for new technologies will ensure this group meets the needs and expectations of the faculty members as they are challenged to use technology in new ways in the classroom.

### Technology Access

## Technology Access

Putting the tools of the 21<sup>st</sup> century in the hands of students and faculty is an important ingredient to our continued success. Some steps have already been taken to make this a reality including replacement of traditional faculty desktop systems with laptop or other mobile computing, laptop carts for students, technology enhanced classrooms, personal PC purchase agreements with Dell and Gateway and opening the main computer lab to 24 x 7 operations. Future strategic projects include:

## New Buildings

- **Technology for New Construction** – The advent of the Dauch College of Business and Economics set a new standard for technology in the classroom. “Smart” classrooms, technology enabled public areas, wires access, video conferencing technology will all play a role in the new College of Education and Recreation and Sport Sciences Facility and in the renovation of the Kettering Science Center.

## Laptop Computing Initiative

- **Pilot of Laptop Computing Initiative** – Several departments within the university have been looking at laptop (mobile) computing initiatives at other institutions. This program provides students with laptops to help facilitate the learning process and enhance the collegiate experience. Several models will work well and departments are anxious to run a pilot program for a portion of our students to learn more about how a program of this nature would work at Ashland University. Many faculty already have mobile (laptop or tablet computers) thus putting AU a step forward in integrating this technology in the classroom.

## Software Licensing

- **Student Software Licensing Program** – Ashland University has licensing agreements with several software vendors that provide very favorable pricing on popular software packages. These software packages are important to

student productivity and are essential to the educational process. Extending software agreements to students (i.e. Microsoft Office Suite, web development packages, Adobe software packages and computer security and anti-virus packages) is a priority.

- **Computing Facilities Access** – This summer we converted an existing staffed open lab to a 24 x 7 remotely monitored facility. The response from students has been very positive. Expanding the number and type of facilities that are available 24 x 7 to allow students greater access to technology resources.

**24 x 7 Lab  
Access**

### **Information Access**

Access to the physical tools of technology is important but equally important is access to information. Information on the Internet is abundant and it has become a primary tool for conducting research. It is also a critical resource in the teaching and learning process at Ashland University. A large investment is made annually to ensure information about the university is accurate and timely and a large investment is made to ensure adequate access to the Internet and online resources. Initiatives that can be accomplished with this additional funding include:

**Information  
Access**

- **Internet Tools** – There are a vast array of tools available to obtain and share information on the Internet. An important part of the research process is our ability to pilot new informational resources over the Internet. Faculty could be encouraged to test and adopt these new tools and the Office of Information Technology would be given the appropriate resources to support these efforts.
- **Internet Bandwidth** – Internet bandwidth is what connects Ashland University with the rest of the online world. If this access is saturated then students and faculty can not get to the resources and information they require in a timely manner. A reasonable goal would be to double our Internet bandwidth and provide quicker access to online information.
- **Third Frontier Network** – The Third Frontier Network (TFN) is an Ohio project to bring high speed Internet connections to universities. All academic institutions in Ohio will eventually be linked to high speed Internet via the TFN project. Substantial portions of this program are not funded including the area that would bring Internet 2 to Ashland University. One option would be to partner with an institution that will receive access earlier and connect to the next generation Internet through them until we are connected via the Third Frontier. This could make Internet 2 access for Ashland University a reality much sooner.
- **Web Portal** – The development of a Web Portal is a high priority for many Ashland University departments and will have a direct and profound impact on how students and faculty conduct administrative tasks, access university information, and access online resources. The Office of Information

**Pilot  
Programs**

**Internet  
Bandwidth**

**Third  
Frontier  
Network**

**Web Portal**

Technology has worked hard to develop what we currently offer online but we are at the point where we need to take the next step – an integrated Web Portal for all student, faculty and staff resources.

### **Infrastructure Enhancement**

The network and computing infrastructure at Ashland University has received significant enhancements over the past several years. The technology infrastructure, unlike other infrastructure components (water, power, HVAC) is subject to rapid changes and new threats every day. Therefore, it is important to ensure the network and computing infrastructure uses the latest proven technology and is built to be very resilient to internal and external threats. Initiatives that can be accomplished with this additional funding include:

- **Security** – Network security is currently a considerable cost to the university and additional resources are needed to ensure a stable network environment. Anti-virus, spam filters, intrusion detection systems, firewalls, etc. are good measures but some of these services are in need of updating or replacement. Additionally, there are many other security tools which could be used to ensure network stability but require a full assessment before implementation.
- **Disaster Recovery** – There are several vulnerabilities that exist in our networking and computing environment which must be mitigated over the coming years. Remedies include battery and generator backup for Founders Hall, off-site data storage and cold/warm site operation alternatives. Improving our disaster preparedness is a priority over the next few years.
- **Hardware Replacement** – There are several new initiatives which will cause strains on our existing network. Making improvements and building redundancy in the network is critical to the implementation of new systems and the future health of our network.

### **World Class Support Staff**

In the field of technology it is not only important to invest in hardware and software but investment in human resources is equally important to reaching the “future state”. Ashland University has made a considerable investment in the Information Technology department. In order to keep a cohesive and productive team it will be important to address the areas of quantity, quality and compensation levels of the staff members. As Regional Centers expand course offerings and new facilities are brought online the need for technology grows. We must constantly reassess the technology support structure to ensure adequate and appropriate staff resources are available.

- **IT Staffing Levels** – As the technology needs of the university grow and facilities and services expanded the support staff has had to adapt to new challenges. Eventually, the support structure must be reassessed to ensure the

## **Infrastructure Enhancements**

## **Network Security**

## **Disaster Recovery**

## **Hardware Replacement**

## **World Class Staff**

technology needs of faculty, students and staff members are being met. This reassessment often leads to position title and description changes, compensations adjustments and changes in responsibility. Areas requiring additional staff resources include the desktop support/client services group and the networking group. These areas will each need on additional full time staff person in the immediate future. In addition, the staff support model for the Regional Centers must be reevaluated to ensure their technology needs are met. Additional resources in the area of database support, web development and design will be needed as we proceed but some of these needs can be met with consulting agreements for a short term solution. Still, there are distinct advantages to having these resources in house and available as needed.

**Staffing  
Levels**

### **Initiatives Outside Baseline Funding**

The Office of Information Technology is continuously faced with the challenge of balancing a seemingly infinite demand for technology and services with a finite supply of staff and funding. As new buildings are brought online and new technologies take hold at Ashland University the demand for these resources increases thus straining the resources of the Office of Information Technology. The ½ of one percent Revenue Allocation (.5 percent of Tuition and Fee revenue) permits progress in many areas that have a significant impact on teaching and learning activities at Ashland University. These initiatives include:

- Faculty Laptop/PC Refresh
- Server and Infrastructure Upgrades
- Student Labor (partial funding)
- Departmental Hardware, Software and Audio Visual Upgrades

**Current  
Projects**

In order to build on this progress and move Ashland University to the “future state” of technology additional funding is required. ***At this time, the major initiatives in the Foundations of Technology are not funded.*** Opportunities for funding include:

- Increasing the Revenue Allocation to between 1 and 1.5 % for 5 years
- Increasing the Technology Fee for students from \$75 per semester or \$6 per credit hour to \$125 per semester or \$10 per credit hour (65% increase)
- Increasing the Operating Allocation by 75%
- Developing a “charge-back” system for technology services and support

**Funding  
Options**

Each option has wide-spread impact on the university community and budgets but the Office of Information Technology is committed to make as much progress as possible on several of these initiatives to move technology forward and serve the AU community. A

valid approach will be for modest increases in several areas as opposed to a substantial increase in just one area.

### **Funding Requirements**

The future funding requirements of the Office of Information Technology are identified as either strategic initiatives, operational requirements, or staffing requirements. Strategic initiatives are the projects identified in the “foundations of technology” section of this report. Operational requirements are increases required to keep pace with increasing maintenance costs. Staffing costs are those associated with improving the staff structure and additional staff positions that are required as more technology comes into use at the university. These figures represent best estimates and are in addition to the existing funding levels.

- Strategic Initiatives to build the “Foundations of Technology” - \$1,539,860 over 4 years
- Operational Requirements - \$132,400 per year increase in funding to meet increased costs for the Telephone Plant, Datatel Maintenance, and Student Worker support.
- Staffing Requirements - \$48,800 for adjustments to the existing staff structure; \$91,500 for two additional staff positions (networking and client services). These costs include benefits.

### **Funding Requirements**