



UNIVERSITY OF PHOENIX

The University of Phoenix (UOP) was founded twenty years ago in Phoenix, Arizona, as a private, for-profit higher education institution whose mission is to provide high quality adult education (students must be 23 years of age or older and employed to qualify for admission). Accredited in 1978 by the North Central Association of Colleges and Schools, UOP currently enrolls 31,000 students and employs approximately 4,000 faculty. The University offers undergraduate degrees in business, management, information systems, nursing, and accounting, and graduate programs in business, management, nursing, education, counseling, and computer information systems.

Through innovative methods, including distance education technologies, the University offers educational access to working adults regardless of their geographical location. Programs are offered at physical campuses and learning centers in Arizona, California, Colorado, Florida, Hawaii, Louisiana, Michigan, Nevada, New Mexico, Utah, and the Commonwealth of Puerto Rico. Degrees are also offered through distance education programs to more than 3,100 students in all fifty U.S. states and abroad, using the directed study and teleconferencing options of UOP's Cen-

ter for Distance Education or enrolling through the Online Campus.

UOP is one of three major subsidiaries owned and operated by Apollo Group, Inc., a for-profit higher education corporation also headquartered in Phoenix. The other two are the recently acquired Western International University and the Institute for Professional Development (IPD).¹

Technology—a strategic resource

The University of Phoenix is unique in its focus on delivering higher education to working adults, using a highly interactive and experience-based educational model (see sidebar, facing page). To the extent that technology supports that focus and educational model, it is viewed as a valuable strategic resource in which UOP is willing to make major investments. All technology acquisitions and applications are directed at solving a business problem or enabling a better way of doing business, as well as supporting the teaching

and learning model. Thus, proposed technology investments are accompanied by cost/benefit analyses, a significant component of the planning and budgeting process.

Planning at the University is very much driven by the goal of growth within the framework of continuing to offer quality adult education. Technology is seen as making a major contribution to both of these ends; according to UOP President William Gibbs, "If we want to keep growing and improving our programs, technology must continue to be a significant resource for the University."

Debra Kelin, vice president of the University's Mountain Region, describes technology as a "tool to help us achieve three areas of importance to the University: quality, knowledge, and innovation." At the Colorado Campus, an Information Systems Advisory Committee has been charged with envisioning the campus's future in the Information Age and proposing appropriate technology investments to enable that future.

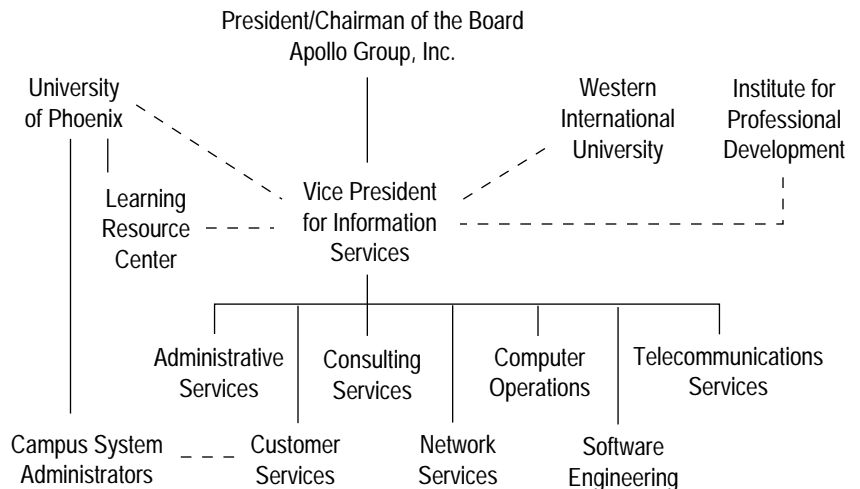
According to Todd Nelson, UOP's executive vice president, while many functions of the University are decentralized to the campuses, there are nonetheless a number of key functions that are highly centralized, and for which effective information systems are critical. "Every problem we have, we try to address

¹ IPD is a consulting company that contracts with four-year colleges and universities to market and/or run adult education programs on their behalf. Currently IPD has eighteen such contractual agreements, serving more than sixty sites in eighteen U.S. states.

Information Services Organization



From the top, left to right: UOP President William Gibbs, UOP Executive Vice President Todd Nelson, Online Campus Vice President Terri Hedegaard, Vice President for Information Services Jan Baltzer, Learning Resource Center Executive Director Kurt Slobodzian





John G. Sperling
Founder

“Education that Goes to Work”

In a time of stabilization for many higher education institutions, why is the University of Phoenix experiencing significant growth, both in terms of new campuses and numbers of students? John G. Sperling, founder and president of Apollo Group, Inc., the corporation that owns the University of Phoenix, attributes much of their success to *focus*, and to the application of a teaching and learning model that is very attractive to working adults: “We specialize in delivering higher education to working adults. For twenty years, we have

known our mission and not varied from it. We also saw the demographic and social trends—an increasingly older, more mature population in need of professional and continuing education—and took aim at them. And from the beginning we treated our students as customers. The most precious thing working adults have is time, so we deliver education in a way that recognizes that, and also recognizes and complements their maturity, experience, and personal and professional responsibilities.”

Phrases such as student-centered learning, facilitated learning, lifelong learning, and learning outcomes and assessments have been part of the vocabulary of the University of Phoenix from its inception. These concepts reflect the philosophy on which it was founded, a philosophy responsible for the use of a teaching system in which lectures are minimized, and simulations, seminars, group discussions, and student work-related projects constitute the primary methods of learning.

Because the learning model also recognizes the importance of integrating theory and practice, the curriculum for each UOP degree program is designed by a task force of both faculty and industry professionals, and all courses are taught by working professionals with advanced degrees and current experience in the subject areas of their courses. The carefully planned curriculum identifies specific learning outcomes for each course, stated in terms of skills, competencies, and other performance-based measures, and a system is in place that enables consistent evaluation of both students and faculty.

with a technology-based solution. There is without doubt a concerted strategy for significant investment in information technology to enable greater efficiencies and cost savings. From the top down and bottom up there has to exist a mentality that you are willing to spend money to be more effective. Then you need the money to do this. We’ve been fortunate in that we have a corporate culture that embraces technology as a solution to the future, and because we are a successful for-profit enterprise, we also have the resources to invest in the technology.”

Tony Digiovanni, vice president of the UOP’s California Region, agrees: “Being a for-profit institution is an advantage, as it keeps us extremely accountable. It forces us to watch the economic trends, to see how the technology continues to go down the cost curve, to know when to jump on board.

As we look at the critical mass in the major population areas, while at the same time having a mission to provide access wherever students have needs, emerging network and communications technologies make a lot of sense for us to help maintain the University’s growth.”

Planning for information services

While a formal, written strategic plan for information technology is not a critical activity, an ongoing strategic planning effort *is*. This effort is being led by the central Information Services organization, in conjunction with the enterprises it supports—Apollo Group corporate offices, IPD, Western International University, and the University of Phoenix central offices as well as all of the UOP campuses.

An Information Services Steering Committee at the corporate level serves as an advisory board to Information Ser-

This article is based on a visit to the University of Phoenix headquarters by editor Julia Rudy. The magazine’s Campus Profile department regularly focuses on the information resources environment—information, technology, and services—of a CAUSE member institution, to promote a better understanding of how information resources are organized, managed, planned for, and used in colleges and universities of various sizes and types.

vices, capturing input from the president of Apollo Group, presidents of the three subsidiaries, Apollo Group’s chief financial officer, heads of the IS departments, directors of major corporate departments, and several UOP regional vice presidents. The committee focuses on a different topic at each meeting, so in addition to the standing membership, additional areas are represented, depending on the topic under discussion.

According to Jan Baltzer, Apollo Group’s new vice president for Information Services (IS), until last year the IS organization had been reactive, rather than proactive, in terms of meeting technology needs. But the creation last fall of her chief information officer position with a direct reporting relationship to Apollo Group’s president enabled a total reorganization of Information Services and initiation of the strategic planning effort. With a more strategic and unified view, Baltzer says, “IS can focus on being ‘out in front’ of needs. We are much better positioned now to work with campuses in determining their technology needs and, in the process, help campuses plan for and budget for these investments.” Nina Omelchenko, vice president for University Services at UOP, believes the creation of the CIO position and the consequent reorganization and refocusing of Information Services was a key decision: “It has made technology not just a tool, but a part of the strategic direction of the organization.”

As part of the strategic planning process, Information Services staff created a mission statement and identified eight major goals and a series of tasks related to those goals within Apollo Group:

- to establish networking as the cornerstone technology;
- to promote and support the use of information technology to improve all aspects of communication;

- to increase the technology literacy level of all employees;
- to provide information technology support for delivery and support of instruction;
- to provide high quality customer service;
- to establish and maintain high quality data management applications and processes;
- to assume a leadership role in process improvement; and
- to establish Apollo as a leader in the use of information technology in higher education.

Managing information services

While all of these strategic goals are important, Baltzer says the highest priorities are establishing networking technologies as fundamental to the support of both administration and instruction, and

promoting the use of technology to improve communications and business processes. Addressing these goals has been facilitated by reorganizing IS, which is now much more "customer-centric."

The new Information Services organization has seven units: consulting services, customer services, administrative services, software engineering, telecommunications services, network services, and computer operations. Director of Administrative Services John Lewis has worked closely with Apollo Group's human resources department in rewriting every job description and revising the organization's performance management system.

The new consulting services unit, in particular, will facilitate the goal of aligning technology with business needs. A major function of this unit is to

consult with administrators at UOP campuses, Western International University, and IPD sites to help them determine how technology can be applied to solve their business challenges, as well as prepare them for technology that will be rolled out at the corporate level. Betty Maisel, director of this new unit, explains the importance of creating service level agreements: "In the past, IS has had conflicts with the campuses because of different levels of expectations; we haven't communicated very well. So managing expectations is a large part of what consulting services will be doing."

As part of this effort, a research and development function has also been created in IS. Once the consulting services unit has worked with the customer to identify business needs, R&D will work to find the best technology to meet those needs. Three new technology projects

Online Campus—A Natural Fit for the University of Phoenix

Ten years ago, when the University began to research the idea of reaching students using electronic communications, it found that some early research done by the Ontario Institute for Studies in Education fit very closely with the teaching and learning model already in use on UOP campuses. Computer-mediated communications are very supportive of the highly interactive environment that is the hallmark of a UOP degree—a teaching model that revolves around students sharing ideas as opposed to students listening to a lecture. The University realized that the facilitative nature of UOP's learning system would actually be enhanced by the ability to be asynchronous.

Thus in 1989 the University launched its Online Campus, succeeding in building a computer-based delivery system that provides interaction of the same quality as that found in its traditional face-to-face classrooms. According to Terri Hede-gard, vice president of the Online Campus, UOP was careful to adopt only mainstream technologies to deliver online education. "We wanted a cost-effective and rugged system that would be accessible and cost-effective for students as well. We could get 'glitzy' but our primary evaluation criterion is, does it add value to the learning environment. That's why we aren't doing 'talking heads.'"

Currently, UOP is delivering online education using computers and modems and a computer conferencing system called Alex (Apollo Learning Exchange, based on a product from Convenc). Students access Alex on a host system by calling direct via modem or through Internet service providers or other Internet gateways. As increasing numbers of students gain access to the World Wide Web, this will become a more universal resource for delivering online courses.

While classes that meet in physical locations have an average of sixteen students, the average online class size is eight because of the intensive nature of the online interaction.

More than 200 faculty are currently teaching online, with 50 in training. Faculty training is also intense, consisting of eight weeks of online training, followed by practice teaching and observation of an experienced faculty member teaching a course. The first time faculty teach an online course, a mentor is assigned to advise them and monitor their class. From start to finish, it takes about three months to train a faculty member.

For online students, the curriculum is the same, but oral presentation skills are not included in the outcomes sought. However, writing skills and online communication skills are greatly enhanced. Students enrolling in the Online Campus take a brief communication skills class before taking courses.



The Online Campus is enabling hundreds of working adults to work toward degrees at their convenience.

Current Technology Environment

Hardware Standards:

Sequent minicomputers at the server level
Compaq microcomputers at the desktop level with Windows operating system
Toshiba laptops

Software Standards:

UNIX
Oracle 7 relational database management system and development tools

Applications:

Oracle financials
OSIRIS (in-house student records system)
Contact management and enrollment tracking (in-house)
Financial aid (in-house)
Student and course scheduling (in-house, interacts with OSIRIS)
Faculty scheduling (in-house, interacts with OSIRIS)
Online transcript evaluation (in-house)
Oracle mail (to be replaced shortly)
Multiple desktop applications
Transcript exchange through EDI (under development)

Networking and Telecommunications:

Local area networks at campuses (Novell servers) are tied together in an administrative wide area network (frame relay through AT&T)
Student wide area network (frame relay through MCI) provides Internet access
PBX and key systems manufactured and supported by InterTel
Voice mail
Integrated voice response (IVR)

are currently under way: enterprise-wide electronic communications (new groupware products, such as Microsoft Exchange, for faculty and student interchange); a videoconferencing pilot in conjunction with the Salt Lake Campus; and wireless technology for use in the classroom to support such activities as recording student attendance.

A staff member within the central IS organization is responsible for assisting in the selection, training, and coordination of the work of Campus System Administrators (CSAs), who manage the information services functions on their campuses and serve as liaisons to IS.

Learning Resource Center

According to Kurt Slobodzian, executive director of UOP's Learning Resource Center, the University has been "on top of" electronic delivery of information resources for some time, offering an impressive collection of online and

CD-ROM databases as well as full-image documents. Ironically, he says, one of the reasons UOP has been able to proceed so rapidly with electronic information delivery is its lack of a massive print collection, for which it has been criticized in the past. "In moving into electronic delivery," Slobodzian says, "traditional academic libraries are hindered by their massive legacy systems. It's not easy to convert collections of several million books! Also, because UOP's content area is very focused, we don't have to build a collection of chemical engineering or art history, so our collection can be smaller and we can really emphasize currency of the collection and full image. Unless they are working on a final thesis-type project, our students have little reason to delve into archival literature; they are much more interested in currency."

The University purchased a system called Powerpages from UMI, and

adapted it to the Internet for student access. A million articles are housed on 1,500 CD-ROMs that can be manipulated to deliver documents to students. UOP has a fully automated access point for students and can deliver full image, rather than full text, which Slobodzian thinks is more useful.

Students can do their own searches through the University's World Wide Web interface to the Center's online databases and CD-ROMS and automatically retrieve the articles, using fax-back delivery, or they can phone or fax in their search request and have professional librarians do the search and return the results. There is a charge for the assisted document delivery, but not for the searches or consultations. UOP has chosen to use fax as the delivery mechanism because of its mainstream properties—all students have access to facsimile technology, but many do not have the capability to download imaged documents for local printing.

Many UOP campuses have workstations connected to the Internet so students can access a service from EBSCO that provides full enhanced text. Slobodzian has also built a collection of links on the Web, a kind of "virtual" library collection aligned to UOP's programs and available to the public.

A changing technology environment

At a recent 20th anniversary celebration, President Gibbs spoke of a vision for UOP's future that includes more intensive use of network technologies, especially the Web: "The face and nature of education is going to change dramatically in the next five years. What's different is the ability to have open systems, seamless communication and exchange of information. This is a huge paradigm shift; nothing in our history has ever been like this before. Technology will play an important part in the classroom of the future, enhancing our ability to put not only the faculty member in front of the classroom, but also key subject experts via multimedia, and to facilitate faculty sharing of best practices. But it will be important for us to marry these technologies to face-to-face interaction, providing students a combination of distance, online, and classroom education that will continue to reflect their professional world."