

Technology



Left: Anthony Hendrickson, associate dean and associate professor of management information systems, helps student Lauren Damme while associate professor Tony Townsend demonstrates the Virtual Reality Applications Center. Above: Devices such as this wearable computer with a miniature viewscreen from MicroOptic are a focus of study in Iowa State's new degree programs in human computer interaction technologies.

New Programs in HCI at ISU

Management information system (MIS) faculty from the Iowa State University College of Business in Ames have teamed up with faculty from the university's colleges of agriculture, design, education, engineering, and liberal arts and sciences to launch masters and doctoral programs in Human Computer Interaction (HCI).

The programs, which begin this spring, will place Iowa State with Carnegie Mellon and Georgia Tech as the only universities offering graduate degrees in this discipline, say school representatives. Students who enroll in the interdisciplinary Ph.D. program will be the first doctoral candidates to matriculate through the ISU College of Business.

HCI refers to the way electronic technologies affect and shape people's daily lives. Students and faculty in the program will explore areas such as the design of user interfaces on Web sites and in software, the

use of computer operating systems, the implementation of electronic voting machines and online libraries, and voice control of computers.

"Iowa State's new graduate studies programs will train researchers and practitioners to meet the challenges faced by the rapid emergence of human computer interaction and its ultimate impact on nearly every facet of business and everyday life," says Anthony Hendrickson, the College's associate dean for academic programs and a member of the HCI graduate program faculty.

The College of Business will work especially closely with the College of Engineering to apply technology to business functions, says Anthony Townsend, associate professor of MIS. "They're creating marvelous things in the College of Engineering, but they need an understanding of the business user's requirements in the corporate environment," he emphasizes. "Engineering has a

deeper focus on the technology, but we can see needs and help work on projects that are significant to the business world."

Participating faculty members emphasize that HCI technologies can be applied to fields as diverse as database management, psychology, and architecture. One likely area of research will examine how businesses can make better decisions by improving their capability to gather and analyze data collected electronically at points of sale.

Getting New Technology to Market

At its recent inaugural NUS-SME Conference, the National University of Singapore signed technology licensing agreements with five small and medium-sized enterprises (SMEs). The five SMEs include Cyclelect Holdings, Brooklyn Media, DecisionWare Simulations & Games, Biomimetic, and RidgeWave Technologies. Each company will bring to market technologies developed at NUS research labs.

The five companies will be working with INTRO, a unit of the NUS Enterprise Cluster. INTRO manages a portfolio of approximately 140 technologies available for commercial use. Available NUS technologies include an adsorption chiller, which uses waste heat from equipment such as personal computers to generate cooling power; real-time mixed reality software, which merges physical and virtual worlds in an interactive gaming envi-

DATABIT

In a recent survey of 192 companies, the Center for Business Ethics at Bentley College in Waltham, Massachusetts, found that 92 percent monitor employees' use of e-mail and the Web. In addition, 26 percent monitor their employees' electronic activities all the time. However, few companies have checks in place to protect employees' privacy or to ensure such monitoring is not abused.

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ronment; and document compression, which is designed to document accessibility, increase productivity, and cut costs.

These agreements will complete the cycle of technology development, say school officials. They also illustrate how commercially viable technologies can be transferred from academia to industry.

“The signing demonstrates the importance NUS places on SMEs as technology transfer partners,” says Tay Kim Huat, INTRO’s deputy director. “INTRO will continue its efforts to partner with industry and provide services based on NUS technologies.”

USC Tests National Cyber-Security

University of Southern California’s Marshall School of Business in Santa Clara is working with the Information Technology Association of America (ITAA) to test America’s readiness to fend off cyber attacks. Marshall’s Center for Telecom Management (CTM) will direct its research to the abilities of small, mid-sized, and large businesses to safeguard the national computer network.

The research will be conducted on a semiannual basis, according to a metrics tool kit developed by TechNet, a network of CEOs pro-

moting technology issues. Later surveys will focus on how well the nation has met its goals to improve security and pinpoint where further work is needed.

“The resulting work will provide a snapshot that can be used by decision makers for determining improvement goals, IT security investment, research, and public policy options,” says Morley Winograd, executive director of CTM.

“If cyber security is truly a national priority, then we need to be able to ‘take our temperature’ in terms of measuring the cyber security health of the nation,” says Harris Miller, ITAA president. Miller adds that the challenge is to understand how companies are protecting their information systems from attack, what cyber security vulnerabilities require attention, and how to measure progress in fixing them.

The research program, Miller believes, “goes a very long way toward meeting that challenge.”

TOOLS OF THE TRADE

Harvard ManageMentor Plus Adds New Topics

Harvard Business School Publishing has introduced a new version of Harvard ManageMentor PLUS, its online performance support tool for managers. Version 2 adds four new topics—implementing strategy, making business decisions, implementing innovation, and persuading others—to the e-learning program, bringing the number of total topics covered to 37.

The four topics were developed with the help of practitioners in the field. “Implementing strategy” teaches managers how to align teams and individuals to help them achieve

strategic goals. “Making business decisions” offers practical approaches to effective decision making, including steps to identify core issues, to evaluate multiple alternatives, and to communicate and implement the decision. “Implementing innovation” teaches managers the skills necessary to bring

ideas—their own or someone else’s—to fruition. Finally, “persuading others” helps develop a manager’s ability to influence outcomes, command attention, change minds, and influence decision makers.

“Today’s organizations are trying to make dramatic moves forward in a new age of competitiveness, which requires employees to be in lockstep with the corporate mission,” says Maureen Betses, vice president of e-learning at HBSP. “These four new topics provide managers with tactical, practical advice on core business activities.”



Georgia WebMBA Links to Germany

The Georgia WebMBA—an online MBA program involving five Georgia universities—has now added an international component. Students from Anhalt University of Applied Sciences in Bernburg, Germany, will work together this summer with students from Kennesaw State University, Georgia College & State University, Georgia Southern University, The State University of West Georgia, and Valdosta State University.

The expansion to Germany will put Georgia WebMBA students in the same online class with MBA students at Anhalt, giving participating students the international experience

NEWSBYTES

■ \$7 MIL GIFT TO ARKANSAS

Oracle Corporation has donated software and curriculum valued at more than \$7million to the Information Technology Research Center in the Sam M. Walton College of Business at the University of Arkansas located in Fayetteville. The gift includes the Oracle9i Database, iDS, iAS, diagnostics, and tuning and change management tools. The company also donated data mining and data warehousing software, which will be used as part of the information system department's business intelligence and enterprise systems curricula.

■ SPAM WARS

Sick of spam e-mail? So is Richard Jowsey, president of New Zealand's Death2Spam Project. Jowsey, who was the keynote speaker at this January's Spam Conference at MIT, maintains that his Death2Spam Internet e-mail filtering service can accurately recognize and block virtually all spam e-mails. After users "train" Jowsey's "High Q" filtering server to their preferences, he promises it can block spam with more than 99 percent accuracy. For more information, visit www.Death2Spam.com for instructions for filtering e-mails through Jowsey's spam-zapping server.

■ U.S. TAKES A STAND

In more spam-related news, a new U.S. law—the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, or the CAN-SPAM act—went into effect in the U.S. on January 1. The law makes illegal misleading subject lines in bulk

commercial e-mails and requires unsolicited e-mail to include a means for recipients to "opt out." Although many hail the new bill as the beginning of the end for spam, others are more pessimistic. Many expect spammers simply to move to other countries, outside the law's reach.

■ E-MAIL STRIKES HARD BARGAIN

A study from the University of Notre Dame's Mendoza School of Business explored the effect e-mail has on business negotiations. Management professor Charles Naquin, who conducted the study, found that online negotiations inspired lower levels of pre- and post-negotiation trust than did face-to-face negotiations. Those who negotiated via e-mail also were less satisfied with the negotiated outcome and less confident in the quality of their negotiating skills, even when the economic outcome was the same as that achieved through a face-to-face interaction.

■ NEW ONLINE NEWSLETTER

Stanford Business School is now offering the StanfordKnowledgebase, a free online newsletter dedicated to issues in business, economics, and policy. The monthly newsletter will contain summaries of academic research by Stanford business faculty and cover books, conferences, and other news generated by the business school, including talks from CEOs and links to papers, video clips, and audio presentations. To read the current issue of StanfordKnowledgebase and sign up for a monthly e-mail subscription, visit www.gsb.stanford.edu/news/knowledgebase.html.



required for business, says Daniel Papp, senior vice chancellor for academics and fiscal affairs for the University System of Georgia. "Georgian and German students will learn together about international business and benefit from their shared educational experience," he says.

Such online opportunities offer students the opportunity to work in "global teaming environments," agrees Tim Mescon, dean of the Coles College of Business at Kennesaw State. "It prepares MBA graduates for the competitive and dynamic international business arena," he says. "The opportunity to interact with peers in Western Europe adds another dimension to the WebMBA program."

Eventually, WebMBA students will travel to Germany and visit companies in Bernburg, and German students will come to the U.S. to visit companies throughout Georgia. The exchange is being coordinated by Georgia Southern University professor Cathy Swift, who teaches international business in the WebMBA program, and Anhalt University professor Elena Kashtanova, who teaches international banking and finance.

■ 'Crimson Grid' Comes to Harvard

Harvard University and IBM have announced their collaboration to create a universitywide grid—dubbed the "Crimson Grid"—that students and faculty can use for research, data sharing, and team projects. In the process, Harvard and IBM also plan to create pre-test grid tools and protocols to help other academic institutions bring grid computing to their campuses in the future.

"Grid computing" works on the

principle that the capacity of many connected computers is greater than the sum of individual systems. Like the Internet, a grid connects many different computer systems to each other. Grids, however, make the resources of all linked machines available to every user. Although many computer systems can be involved, users can access the grid through a single, unified interface.

“A grid could potentially provide the tools to solve any type problem, from a complex literature search to mining the genome,” said Dr. Jayanta Sircar, CIO and IT director of Harvard’s Division of Engineering and Applied Sciences (DEAS) and principal investigator for the project, in a press release. “Harvard’s goal is to help create an ‘out-of-the-box’ implementation of grid computing that will enable students throughout the region to leverage commonly shared resources for collaborative research and knowledge sharing.”

Once the Crimson Grid is in

place, project planners hope to expand it to other nearby universities and, eventually, to national and international locations.

■ Bridging the Digital Divide

At a recent three-day conference of the World Summit on the Information Society, discussion centered on increasing access to information and communications technology (ICT) in developing nations. Approximately 90 percent of the global population is still without access to the Internet.

Attended by officials from 175 countries, the conference dealt with questions ranging from how to battle spam to whether the Internet should be internationally supervised. Speakers at the conference included UN Secretary-General Kofi Annan and Zimbabwe President Robert Mugabe.

The conference ended with the unanimous adoption of “The Decla-

ration of Principles,” which highlighted the goal of creating a free and inclusive “information society” where everyone can access and utilize ICT. Delegates agreed to form working groups for future discussions of topics such as Internet governance and funding technological development.

According to *Computerworld*, few delegates from Europe and North America attended, which sparked criticism by the UN. Some also noted that certain governments at the conference were themselves obstacles to technological development in their countries.

Even so, the conference was the first to create an international agenda for global technological development, said Mark Malloch Brown, administrator of the UN development program, at a press conference. However, he admitted that no consensus was reached on the issue.

The next World Summit will be held in 2005 in Tunis, Tunisia. ■

