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Information Technology in the News

IBM AND STANFORD TEAM UP ON SPINTRONICS

■ IBM and Stanford University will open a joint research center to study the promising field known as spintronics. The IBM-Stanford Spintronic Science and Applications Center, or SpinApps, will include lab space and hardware at the Stanford campus in Palo Alto and the IBM Almaden Research Center in San Jose. Rather than studying how electrons transmit electrical charge, those involved in the field of spintronics are concerned with manipulating the spin of electrons. Spintronics holds the promise of smaller electronic devices that require less power and generate less heat than devices that transmit electrical charges. The new center also highlights the growing importance of partnerships between corporate and academic organizations following a decline in corporate funding for such research. (*New York Times,* <http://www.nytimes.com/2004/04/26/technology/26ibm.html> [registration required])

COLLECTING DATA TO IMPROVE THE INTERNET

■ Researchers at Georgia Tech have launched a project they hope will ultimately lead to improvements in the basic functioning of the Internet by collecting usage data from individual users. The NETI@home project is an open-source application that is available for download. When installed, the application gathers data including response time, connection time, and numbers of packets sent and received. Those data are then transmitted to Georgia Tech, where they will be used by researchers to create simulations of Internet traffic and usage. The simulations, according to researchers, will lead to improved protocols and eventually a better Internet. Users who install the application can specify a privacy level that determines what data are collected. Further, copies of all reports sent to Georgia Tech

FEDS ALLOW RELEASE OF STUDENT DATA WITH ELECTRONIC SIGNATURE

The U.S. Department of Education announced that it will allow colleges and universities to release student data and records with an electronic signature rather than requiring a handwritten signature, though the department did not specify which kinds of electronic signatures will be allowed. A future notice from the department is expected to specify requirements for the electronic signatures. Formerly, the department's interpretation of the Family Educational Rights and Privacy Act (FERPA) required handwritten signatures for the release of data. A number of colleges and universities, however, had argued that FERPA allows electronic signatures and had already begun releasing student data without handwritten signatures. Those institutions have not been reprimanded by the department, which proposed the new interpretation of FERPA last summer. (*Chronicle of Higher Education,* <http://chronicle.com/prm/daily/2004/04/2004042205n.htm> [subscription required])

Legal Issues

are stored on the user's machine, where users can see exactly what information was sent. (*Wired News,* <http://www.wired.com/news/technology/0,1282,63180,00.html>)

GOOGLE TO OFFER SEARCHES OF ACADEMIC PAPERS

■ Working with the Massachusetts Institute of Technology (MIT) and sixteen other institutions, Google is developing a search tool feature that will allow users to search specially tagged academic content. Using a tool called DSpace, which MIT developed, colleges and universities can build "superarchives" of scholarly work, including metadata tags that allow for online searches of that content. According to MIT's MacKenzie Smith, about 125 institutions have used DSpace, but there has not been a tool to search across all of these archives. The Google tool will use an interface created by the Online Computer Library Center and will likely be part of Google's advanced-search page. Smith said she hopes all institutions that use DSpace will eventually be included in the search tool. She also noted that the search capability is not restricted to

Google but that other search engines can create search tools specifically for academic content. (*Chronicle of Higher Education,* <http://chronicle.com/free/2004/04/2004040901n.htm>)

MEDIA LAB LAUNCHES NEW INITIATIVE

■ Nicholas Negroponte, director of MIT's Media Lab, announced a new initiative focused on consumer electronics and the technologies that drive them. The CELab will not have distinct facilities but will include research projects at both the Media Lab in Massachusetts and Media Lab Europe, based in Ireland. Because the new lab will not require separate physical space, it has the possibility to generate significant income for Media Lab with very low overhead costs. Negroponte said that people will soon be "eating, wearing, and breathing computers" and that the CELab will be instrumental in developing the technologies that will enable this breed of consumer electronics. Negroponte made the announcement to a group of executives from consumer electronics companies that he hopes will join CELab as members. Companies that

become members, for as much as $200,000 per year, will be able to license intellectual property developed by the lab and to join the lab's steering committee. (*Wired News*, <http://www.wired.com/news/infostructure/0,1377,63412,00.html>)

ARTSTOR NEARS LAUNCH

■ A digital repository of nearly 300,000 works of art has begun accepting subscriptions from college and university libraries. ArtSTOR, a project of the Andrew W. Mellon Foundation, includes digital images of paintings, photographs, sculptures, and architectural landmarks. According to officials with the project, eliminating the need for many colleges and universities to make their own scans of the same piece of art was the primary reason the service was developed. Faculty, staff, and students of subscribing institutions will be able to view images in the collection and zoom in on specific parts of the images, though images cannot be saved to individual users' computers. Faculty can use the service to create groups of images for particular classroom presentations. Because of copyright concerns, the service will not initially include works whose copyright remains in effect, though organizers hope to make arrangements to eventually include images of newer works of art. (*Chronicle of Higher Education*, <http://chronicle.com/prm/daily/2004/04/2004041202n.htm> [subscription required])

PATENT GRANTED FOR ANTI-FILE-SHARING TOOL

■ A professor and a Ph.D. student at the University of Tulsa have been granted a patent for technology designed to defeat P2P networks by flooding them with bogus files. The application generates many thousands of files that masquerade as music or movie files but are nothing more than white noise or ads to buy a legitimate copy of the file. According to John Hale, the professor involved in the project, the effect of the technology is that file-traders spend enormous amounts of time searching for actual versions of the

files they seek amid all the spoofs, which is "like looking for a needle in a haystack." Companies including Overpeer and MediaDefender already offer tools that work in a similar fashion, though Hale said it isn't clear how their tools differ from his because the companies are secretive about their products. Hale and the graduate student, Gavin Manes, filed their patent in 2000, and the two are working with the university to market their technology to record, movie, and software companies. (*Wired News*, <http://www.wired.com/news/digiwood/0,1412,63384,00.html>)

FEDS REVAMP SUPERCOMPUTING PROJECT

■ The Bush administration announced its support of the High-Performance Computing Revitalization Act of 2004, which would coordinate national supercomputing resources and expand access to them for various research programs. Currently, oversight of supercomputing efforts is spread among the Energy Department, the National Science Foundation, and eight other federal agencies. Under the proposed legislation, the White House Office of Science and Technology Policy would have authority to manage all federal supercomputing systems, implementing a plan that would "provide for sustained access by the research community . . . to high-performance computing systems that are among the most advanced in the world." The measure would also provide support for federal efforts to develop associated software technology and to promote graduate and undergraduate studies in several areas, including engineering, computer science, library and information science, and applied mathematics. (*Chronicle of Higher Education*, <http://chronicle.com/prm/daily/2004/05/2004051404n.htm> [subscription required])

FEDS NO LONGER RECOGNIZING BOGUS DEGREES

■ Following an investigation by the General Accounting Office (GAO), the

MORE PRESSURE TO POLICE CAMPUS NETWORKS FOR PIRACY

Developers of a new technology supported by entertainment and technology companies say it will help colleges/universities and ISPs combat digital piracy on their networks. College and universities continue to draw fire from entertainment companies for the relatively high incidence of digital piracy on campus networks. According to a technical summary of the new technology, the Automated Copyright Notice System (ACNS) is "an open-source, royalty-free system" that streamlines the handling of copyright notices, which are sent by copyright holders to those suspected of infringing copyrights. ACNS allows network administrators to force certain actions, such as cutting off network access or sending an e-mail warning, when a copyright notice is received. Developers of ACNS say it does not impose policy but rather helps network administrators enforce existing policies. UCLA and the University of Florida have implemented similar systems for dealing with copyright notices on campus. Fred von Lohmann, of the Electronic Frontier Foundation, has criticized ACNS, suggesting it will simply draw colleges and universities into an "arms race" of competing technological means to protect and circumvent copyright. (*CNET*, <http://news.com.com/2100-1027_3-5194341.html>)

federal government's Office of Personnel Management (OPM) has announced a new policy of not recognizing degrees from diploma mills. The GAO report identified several hundred federal employees, including some high-level officials, who had reported earning degrees

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from unaccredited institutions. In a memo to all federal managers, Kay Coles James, the director of OPM, stated that diplomas from degree mills cannot be used in applying for any federal job, in obtaining salary increases, or in receiving tuition reimbursement. The memo stated: "You may not send employees to diploma mills for degree training or any other form of education. . . . You may not use your authority to repay student loans if the degree is from a diploma mill." According to the OPM, diploma mills are institutions that are unaccredited or that award degrees with little or no coursework. (*Federal Computer Week*, <http://www.fcw.com/fcw/articles/2004/0510/web-creds-05-14-04.asp>)

APPLE OFFERS HARDWARE FOR BIOINFORMATICS RESEARCH

■ In an effort to get more researchers to use Macintosh technology, Apple Computer is offering workgroup clusters to five bioinformatics research projects in the United States. Apple will choose five projects based on "the applicant's scientific record, the likelihood that this project will discover something novel using the award, and the likelihood that this research focus would yield methods or discoveries applicable to the broader life science community." Apple has been working with researchers to encourage wider use of its products in scientific pursuits, such as an initiative at Virginia Tech to combine 1,100 Apple computers in a cluster configuration. That project resulted in one of the fastest computing systems in the world. (*Internet News*, <http://www.internetnews.com/dev-news/article.php/3354081>)

RIAA ENDS AMNESTY PROGRAM

■ The Recording Industry Association of America (RIAA) has terminated an amnesty program it had offered to computer users who illegally shared music online. Under the Clean Slate program, users who admitted in writing to having violated copyright by trading music online, and who removed the files from their computers, could not be targeted by the recording industry's copyright lawsuits. More than 1,000 people signed up for the program. A California man had sued the RIAA over the program, saying the RIAA was guilty of fraudulent business practices. Now that the program has been halted, the RIAA has asked that the case be dismissed. Critics of the program said it was misleading because the RIAA could not guarantee that copyright owners would not prosecute file-traders. The RIAA said the program is no longer useful because consumer awareness of copyright issues has been raised sufficiently. (*San Jose Mercury News*, <http://www.siliconvalley.com/mld/siliconvalley/8469523.htm>)

STUDENTS CREATE SOFTWARE COMPANION

■ Three British college students have won a Microsoft-sponsored technology competition with their University Leisure and Lifestyle (ULL) manager, a software application designed to aid university students with academic as well as social parts of their lives. Built to run on smartphones or handheld computers, the ULL offers tools such as a service that helps students choose textbooks and a feature to provide feedback on academic work. On the social front, the "Take Me Home, I'm Drunk" feature sends a message to a local taxi service, indicating where the user is located and the user's home address. The ULL also includes a buddy list that can tell users exactly where friends are and a tool that translates languages for foreign students. The students who built the ULL were selected from 4,500 entrants in the competition and will represent the United Kingdom in Brazil this summer in an international competition. (*BBC*, <http://news.bbc.co.uk/2/hi/technology/3623315.stm>)

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