

Liz Hayes,
news editor

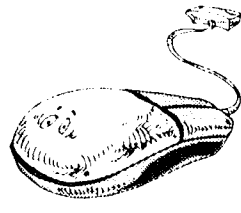


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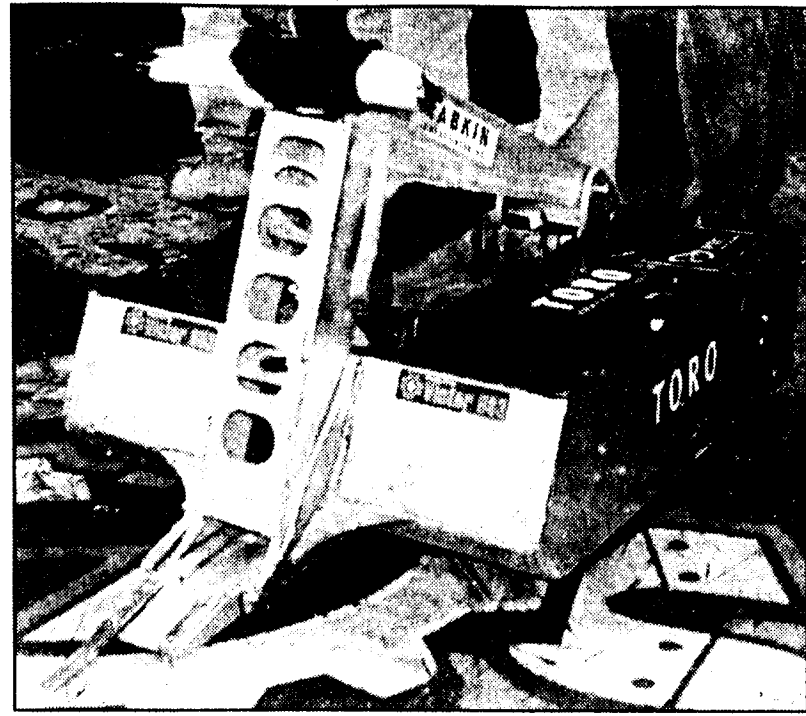
The *Beacon's* looking for new website editor... are YOU up for the job?

Last semester the *Beacon* briefly had a website, but it is now defunct. We would like to get it back online and give it a whole new look. Help us do it.

- Work with professionals
- Gain great experience
- Meet new friends
- Looks great on a resume!



If you're interested, contact the *Beacon* behrcoll4@aol.com (814) 898-6488



KRT PHOTOGRAPH

Phere — a whirling, bladed metal hemisphere created by a team of Fort Worth engineers — lasted a mere 37 seconds in the quarterfinal round of the super heavyweight BattleBots competition currently being aired on Comedy Central.

At a west Fort Worth watching party last month, its creators gasped as television monitors replayed the horror. Toro, shown above, roared toward Phere, reached under its spun-steel shell with a pneumatic arm, then, in one frightening motion, flung the 324-pound bot three feet in the air.

Phere landed upside-down like a defenseless tortoise.

Wireless networking debuts

by Jarred Heigel
staff writer

Technology resources have been improved in several areas at Penn State Berhrend since last semester.

Berhrend is experimenting with wireless networking for students, which allows students to access the Penn State network without physically connecting a computer to the system with cables. The money for this project comes from the student technology fee that all students pay with their tuition, so there is no extra cost for the networking.

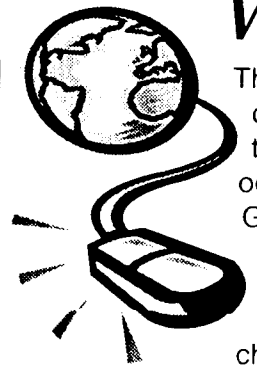
There are currently two access points on Berhrend's campus, one in the Reed Building and one in the Computer Center in Hammernill. Students can therefore utilize wireless networking while in Bruno's, the Reed Wintergarden, the Reed e-mail kiosk by the student mailboxes, and in the food kiosk in Roche Hall. To utilize the wireless network, a student needs his or her own laptop, a mobile network data port, and a wireless adapter that can be obtained from the Computer Center.

Berhrend has also implemented a technology advisory group, which allows students to make suggestions on technology issues. This group helped bring printing capabilities to the e-mail kiosks, new kiosks around campus including in the library, and wireless networking.

The group also helps advise Ron Hoffman, manager of network and information systems, on spending the technology money. Hoffman said that he wants a balanced group representing all of Berhrend's four academic schools, so all students are welcome to come to the next meeting on Friday, October 26, at 4 p.m. in Reed 114.

One other change since last semester is 24-hour access now provided to the Nick 156 computer lab. For access after midnight and on the weekends, students have to enter from the front of the Engineering Complex using their ID cards.

Website insight



The *Beacon's* editors came up with some of their favorite sites to browse — from the fun to the helpful to the down right odd, here's where they've been surf'ing. Got a fave site of your own? Send an e-mail to behrcoll5@aol.com, including your full name, the site's URL, and a few sentences on why it's worth checking out.

Rob's picks:

www.google.com

— "best search engine I've encountered...powers the Yahoo search engine...very little advertising...can find everything and anything I'm looking for...very cool"

www.theonion.com

— "the best source for the latest news, kind of...very professional yet humorous website that is dedicated to making fun of just about everything"

Paige's picks:

www.the-mobile.net

— "features ringtones for mobile phones...just about any song you can think of for your Nokia 5100 phone...all you need is your phone's email address...Motorola and Ericsson capabilities are being developed"

www.ipartyhard.com

— "collaboration of websites having to do with, well, partying...a great site for aspiring bartenders"

Becky's picks:

www.halloween.com

— "cool site for the Halloween season...complete with links to vampire enthusiasts, werewolf information, and links to scary stories and Halloween legends"

www.mla.org

— "the MLA Bibliography website is packed with bibliographies for full-length articles, books, you name it, on any subject you could dream of...free access is provided through the Penn State LIAS system, under Full Text Databases...an excellent way to begin that research project or thesis"

Tech companies see new market for detection

by Guy Gugliotta
The Washington Post

One machine can detect stress by reading flickering eye movements. Another uses X-rays to conduct virtual strip-searches that can spot a razor blade taped to a person's inner thigh. A third videotapes faces in a crowded room and matches them to known terrorists.

For several years, cutting-edge identification and detection technologies have helped specialists in the battle against terrorism, but the Sept. 11 attacks on the Pentagon and the World Trade Center could transform these once exotic gadgets into everyday tools of airport safety.

In Chicago, President Bush described a plan to invest \$3 billion to enhance aviation security, outlining measures ranging from reinforcing aircraft cockpit doors to stationing National Guard members at airport inspection stations.

He also promised to "look at all kinds of technologies," a commitment that could transform today's metal detectors and passport checks into old-world curiosities.

"I think this technology was starting to become a mainstream solution, and it now is mainstream," said Bill Willis, chief technological officer of Iridian Technologies Inc., the Moorestown, N.J., maker of a device that verifies identity by imaging the iris of a person's eye. "People now believe strongly that they want to identify and verify who someone is."

Airport security seeks to accomplish two tasks: identifying potential hijackers or troublemakers, and finding and confiscating explosives or weapons before they get on a plane. Both objectives have stirred controversy from privacy advocates.

Body Search, a device that uses X-rays to penetrate clothing and scan the contours of a person's body, drew outrage a few years ago for its ability to "undress" passengers. Today things have changed: "The public will have less objection if the threat level is justified," said Ralph Sheridan, president and CEO of American Science and Engineering, the Billerica, Mass., company that makes Body Search. "I get lots of questions from airline personnel about 'when can this be used to make me feel more secure?'" It's currently used by the U.S. Customs Service in

five airports to search people for drugs.

Privacy concerns have also hampered deployment of devices that match an iris, handprint, fingerprint, or face to a database of known offenders, techniques known as biometrics because they measure parts of a person's body to create a computer signature unique to that person.

Earlier this year, Tampa police were criticized for "surveillance" of the citizenry when they installed facial recognition video cameras from Visionics Corp. of New Jersey to match pedestrians in an entertainment district against mug shots of known offenders.

"You match the faces against a list of people for whom there are arrest warrants," said security consultant Mark Rasch. "Then you add those 'engaged in criminal activity,' then 'suspected terrorists and their associates.' Once you've created a database, you can use it for anything."

It is not yet clear whether fear of terrorism will overcome Americans' natural antipathy to government prying, but the technologies exist and have been proven reliable.

At the San Francisco airport, would-be employees have their fingerprints digitized in a device developed by Identix Inc. of Los Gatos,

Calif., and checked against FBI databases to see if they are wanted for crimes. Once they are hired, the airport controls employees' access to secure areas with a handprint biometric system developed by Recognition Systems Inc., a Campbell, Calif.-based subsidiary of Ingersoll-Rand.

Using biometrics to search for terrorists among incoming passengers could ultimately prove crucial to keeping them out of the country or identifying them, suggested Don Hamilton, deputy director of the National Memorial Institute for the Prevention of Terrorism, because they marry an individual to a document in a way that cannot be altered.

"The hard part is getting the biometric identifier into the system in the first place," Hamilton said. Iris-scanning and handprints are tremendously reliable, he pointed out, but impossible to use because there is no electronic file of evildoers that contains these biometrics.

Fingerprints have a decided advantage for domestic criminals because the FBI has "a ready-made bad guy database," said Iana Schmitzer, Identix director of public sector sales. "They've got the portrait gallery."

But facial recognition appears to inspire the most interest because it can scan a person's face in an airline

terminal and run the biometric against pictures or videos of a suspect taken anywhere at any time. Its shortcoming is that accuracy deteriorates depending on the quality of the archived image.

"In countries where we have visa requirements, we can get a photograph," said Visionics President Joseph Atie. "We can never guarantee we can capture everybody, but this is an effective shield from terrorism."

In San Diego, Erik Viirre, a cognitive scientist and president of the computer technology firm Sapien Systems, has developed a different use for biometrics, designing a software program that can measure eye movements against a computerized signature that detects stress.

"You look for signs over which people really have no control," Viirre said. He has used the system to gauge fatigue in soldiers and truck drivers, but it could readily accommodate airline passengers.

"If the person matches the indicators, a red light would come on," Viirre said. "This could capture all kinds of things — somebody totally afraid of flying, or drunk or potentially violent."

At security checkpoints, airports and airlines have many other technologies from which to choose.

Barringer Instruments of Warren, N.J., makes a desktop machine that can tell whether a passenger has handled explosives by swabbing down a piece of luggage and running the sample through on-site chemical analysis. The Federal Aviation Administration has bought dozens of the Ionscan machines from Barringer and distributes them to U.S. airports.

Barringer's chief competitor, Thermo Electron of Waltham, Mass., got its start in forensics, monitoring air crash wreckage to determine if an explosion occurred and where the explosive may have originated. Spokeswoman Caroline Grossman said the FAA recently inquired how fast the company can make the machines.

The FAA also buys and distributes to airports an X-ray scanning machine that can create a three-dimensional picture of the inside of someone's luggage — the aircraft security equivalent of a medical CAT scan.

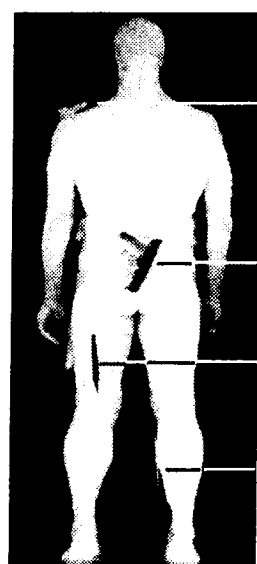
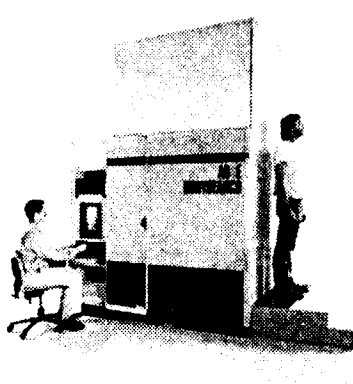
"If the system finds a density similar to that of an explosive, it will issue an alarm," said Yotam Margalit, director of product management for InVision, the Newark, Calif., firm that makes the scanner. If the machine recognizes "areas of interest," it will stop and scrutinize them more carefully.

Airplane Security Technology

Airports are beginning to employ advanced technologies to foil terrorism and trafficking. Two devices being used are:

X-ray searches

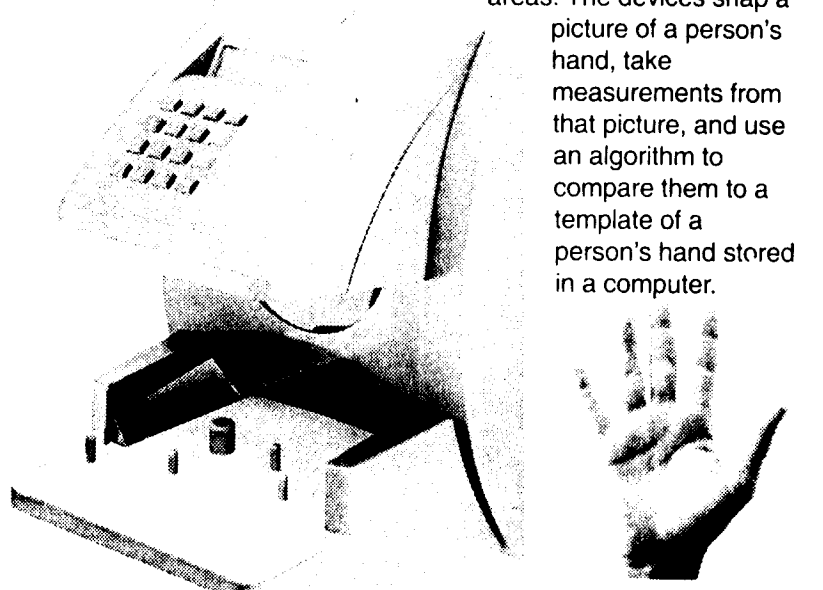
Advanced X-ray scanners are being used at arrival areas in some major airports in place of body searches. The scanners read scattered X-rays that bounce back from their subjects. They pick up various densities of materials — including plastic and powders — and produce much clearer images than traditional X-rays.



- Simulated cocaine
- Plastic handgun
- Metal file
- Plexiglass knife

Hand-recognition scanners

Some airports are using hand-recognition scanners to secure access to doors leading to aircraft operations and baggage-handling areas. The devices snap a



picture of a person's hand, take measurements from that picture, and use an algorithm to compare them to a template of a person's hand stored in a computer.