



Carnegie Mellon

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Tartan Racing Wins \$2 Million at DARPA Urban Challenge

■ Byron Spice

The self-driving SUV known as Boss was in the thick of the Defense Advanced Research Projects Agency (DARPA) Urban Challenge race when it entered an intersection, stopped and backed up. An official scorer made note of the incident, assuming it was a driving error that would count against the Carnegie Mellon entry.

But DARPA Director Tony Tether thought differently when he reviewed aerial video of the incident later. The reason Boss backed up, Tether could see, was that the robot saw a car coming and tried to get out of its way.

“I thought that was pretty cool,” Tether said. “That can’t be a penalty.”

Not only did Boss drive safely, it drove swiftly – fast enough to win the Nov. 3 race, which pitted 11 autonomous vehicles against each other on a course of suburban and urban roads in Victorville, Calif. The Carnegie Mellon Tartan Racing team earned a \$2 million prize for Boss’ first-place finish.

Boss, a robotized 2007 Chevy Tahoe, completed the course about 20 minutes faster than its closest competitor, Stanford’s Junior. Though Boss crossed the finish line at 1:45 p.m. (PT), no



PHOTO COURTESY OF TARTAN RACING

THE TARTAN RACING TEAM CELEBRATES BOSS’ FIRST-PLACE FINISH AT THE DARPA URBAN CHALLENGE.

winner was announced until 20 hours later, after DARPA officials had reviewed all of the scorecards and videotapes to determine if the robots had driven well enough to be issued California driver’s licenses.

“At the end of the day, they all

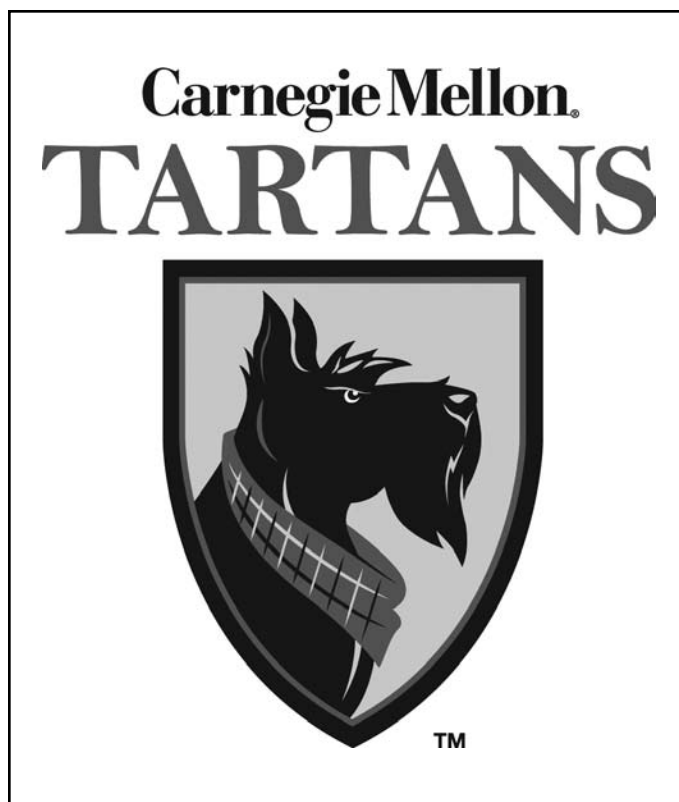
passed,” Tether said, so speed became the determining factor. Boss was the fastest of the competitors by a large margin, averaging about 14 miles an hour over approximately 55 miles.

“Robots sometimes stun the world, inspire a lot of people and change the

belief of what is possible,” said William “Red” Whittaker, a Carnegie Mellon robotics professor and team leader of Tartan Racing. “We’ve seen that here and once the perception of what’s possible changes it never goes back. This is a

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Mascot’s Graphic Identity Unleashed



■ Abby Houck

T-shirts recently distributed by Carnegie Mellon’s marketing communications department encouraged students, faculty and staff to “see what all the barking is about” at the Nov. 10 football game. During the game, the Scottish terrier’s official graphic identity appeared on the scoreboard while members of the Carnegie Clan handed out t-shirts emblazoned with the new mascot.

The Mascot Identity Task Force, co-chaired by Director of Athletics Susan Bassett and Dean of Student Affairs Jennifer Church, partnered with SME Branding to develop, test and select a consistent design. SME has created mascot identities for universities including MIT, Stanford University, Georgetown University, University of Florida and University of Pennsylvania. During October, students and alumni reviewed potential mascot images in a series of focus groups.

“The focus groups clarified the direction and

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the PIPER

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University Begins Work on New Strategic Plan

■ Bruce Gerson

Every plan needs to be refreshed and updated from time to time. And so it is with Carnegie Mellon's Strategic Plan, a document that has guided the university for the last decade.

"This is a particularly good time to review our strategic plan," said President Jared L. Cohon. "The university will be reviewed for re-accreditation this year, as it is every 10 years. We are also preparing for the public launch of our capital campaign about a year from now, when we will need clear and compelling campaign priorities."

"A strategic plan is important because it sets the direction for the university. It indicates our cultural values and what's important for the institution to emphasize," said Provost and Senior Vice President Mark Kamlet. "While, if successful, a strategic plan does influence resource allocation, at the same time it is very much a guide — a general compass — not a detailed mandate. It is designed to be interpreted and implemented in the context of the entrepreneurial opportunities that will arise over the upcoming years."

President Cohon said the current plan authored in 1998 has served the university well and will be used as a starting point for the new strategic planning process, which is now under way. Kamlet is chair of a strategic planning steering

committee that includes the academic deans. Vice President for Research Rick McCullough is the committee co-chair.

A relatively small committee made up of university community members will lead the review of each of the six priorities in the 1998 plan. Vice Provost for Education Indra Nair will head the Education

graduate education, interdisciplinary research, diversity, internationalization of the university, and our contributions to the local economy and community," he said.

"As I enter my third term of service, I am especially proud of our accomplishments to date and enthusiastic about the opportunities before us. I want to continue

"A STRATEGIC PLAN IS IMPORTANT BECAUSE IT SETS THE DIRECTION FOR THE UNIVERSITY. IT INDICATES OUR CULTURAL VALUES AND WHAT'S IMPORTANT FOR THE INSTITUTION TO EMPHASIZE."

— PROVOST AND SENIOR VICE PRESIDENT MARK KAMLET

and Student Life Committee; McCullough will head the Research Committee; Economic Development Director Don Smith will lead the Regional Impact Committee; Heinz School Dean Mark Wessel will chair the Internationalization Committee; Trustee Linda Dickerson will head the committee on Community Success and Diversity; and Vice President and Chief Financial Officer Deb Moon will lead the Infrastructure Committee. Each committee is charged with reviewing progress made since 1998 and recommending new priorities within their respective areas.

In a recent interview with The Piper, Cohon expressed his optimism about the results of the 1998 strategic plan. "I feel good about our progress on all our priorities in the strategic plan — under-

the progress we've made."

The work of the strategic planning committees will be enhanced by broad-based input from the community, including meetings with various governing bodies, councils, advisory groups and departments. In addition, there will be periodic town hall meetings held throughout the process, to which faculty, staff and students will be invited. An online mechanism for feedback may also be employed.

Each committee will complete a preliminary report by late January, and a draft of the 2008 Strategic Plan should be completed by late spring. Kamlet said the plan would most likely be a topic of discussion during a Trustees retreat this summer, followed by final approval in the fall.

Team BioSAC Honors Brown



PHOTO COURTESY OF TEAM BIOSAC

THE BIOLOGICAL SCIENCES STUDENT ADVISORY COUNCIL (BioSAC) RAISED THE MOST MONEY OF ALL PARTICIPATING GROUPS — NEARLY \$23,000 — IN THE AMERICAN CANCER SOCIETY RELAY FOR LIFE HELD AT GESLING STADIUM LAST MONTH. TEAM BIOSAC PARTICIPATED IN THE EVENT AS A TRIBUTE TO ONE OF THE DEPARTMENT'S FAVORITE PROFESSORS, BILL BROWN, WHO DIED THIS PAST SUMMER AFTER COMPLICATIONS FROM BRAIN SURGERY. THE TEAM ALSO EARNED THE EVENT'S TEAM SPIRIT AWARD FOR THEIR DEDICATED EFFORTS IN MEMORY OF BROWN, WHO, DURING LAST YEAR'S RELAY FOR LIFE, WALKED LAPS AND TALKED WITH STUDENTS AS THEY CIRCLED THE TRACK AND EVEN RETURNED IN THE MORNING TO HELP THE STUDENTS CLEAN UP AND CELEBRATE AT THE AWARDS CEREMONY.

Cans Across the Cut



PHOTO BY BRUCE GERSON

AS PART OF CARNEGIE MELLON'S 14TH ANNUAL FOOD DRIVE ORGANIZED BY STAFF COUNCIL, THE NOV. 7 "CANS ACROSS THE CUT" INITIATIVE GAVE STUDENT ORGANIZATIONS, ACADEMIC DEPARTMENTS, RESIDENCE HALLS, ATHLETIC TEAMS AND OTHER CAMPUS GROUPS THE OPPORTUNITY TO GIVE BACK TO THE COMMUNITY. THE ENDEAVOR'S GOAL WAS TO CREATE A LINE OF NON-PERISHABLE FOOD ITEMS THAT RAN ALL THE WAY ACROSS THE CUT, AND THE TEAM THAT DONATED THE MOST FOOD ITEMS DURING THE DAY RECEIVED A TROPHY AS RECOGNITION FOR THEIR EFFORTS. A TOTAL OF MORE THAN 600 ITEMS WERE COLLECTED, WITH THE CARNEGIE INSTITUTE OF TECHNOLOGY LEADING THE WAY WITH 419 ITEMS. "CANS ACROSS THE CUT" ALSO RECEIVED \$120 IN GIFT CARDS AND \$75 IN CASH. ALL PROCEEDS FROM "CANS ACROSS THE CUT" AS WELL AS THE OVERALL FOOD DRIVE WILL BE DONATED TO THE GREATER PITTSBURGH FOOD BANK.

Carnegie Mellon Receives Two Historic Grants To Build Initiatives

Gifts From R.K. Mellon Foundation, Heinz Endowments Total More Than \$47 Million

■ Piper Staff

The largest private foundation grant in Carnegie Mellon's history will augment the university's flourishing life sciences initiatives.

A \$25 million gift from the Richard King Mellon Foundation announced last month will be used to create the Life Sciences Competitiveness Fund, which will support the hiring of faculty and the construction of new labs in addition to establishing a Presidential Scholars Fund to support the best and brightest graduate students focusing on life sciences fields, such as computational biology, medical robotics and biomedical engineering.

"We are deeply honored and profoundly grateful for this gift from the Richard King Mellon Foundation. This grant represents a powerful vote of confidence in Carnegie Mellon and a major investment in the future of our region," said Carnegie Mellon President Jared L. Cohon. "This magnificent grant is the latest in a series of bold and visionary commitments to our university by the foundation and its founders. One of the first was a gift in 1964 from Richard King and Constance Mellon to our nascent Computer Science Department — a program that is now the nucleus of our world leading School of Computer Science."

Richard King Mellon Foundation Chairman Richard P. Mellon echoed the significance of the foundation's lengthy record of philanthropic endeavors to benefit the university.

"The Trustees of the Richard King Mellon Foundation are very proud of the longstanding relationship with Carnegie Mellon University," Mellon said. "This grant will build upon the region's growing body of knowledge in the life sciences arena."

While the university's life sciences efforts will continue to expand as a result of this new funding, the benefits are expected to reach beyond campus as well.

"The building of advanced facilities and attracting and supporting the most talented graduate students in life sciences helps position the region to be competitive nationally," said Richard King Mellon Foundation President and CEO Seward Prosser Mellon.

The grant will help expand Carnegie Mellon's leadership role in a number of interdisciplinary fields in the life sciences. For example:

- **Medical robotics:** Carnegie Mellon research has established Pittsburgh as a world leader in computer-assisted

surgery. Meanwhile, the university and its partners are creating health-care technologies that provide greater independence to older adults and people with disabilities. In 2006, Carnegie Mellon and the University of Pittsburgh received a five-year, \$15 million grant from the National Science Foundation to establish the Quality of Life Technology Engineering Research Center for research in this field.

- **Computational biology:** In the past few years, Carnegie Mellon has assembled one of the country's strongest teams exploring this nascent field. It now offers a joint doctoral program in computational biology with the University of Pittsburgh. The program was made possible by the advent of powerful computing tools and the curiosity of scientists who can now take advantage of vast information databases on subjects such as the human genome and cancer. The university recently received a \$5 million gift from Ray and Stephanie Lane to establish a research center and professorship in computational biology.
- **Neuroscience:** University researchers play key roles in the growth of computational neuroscience to reveal fundamental aspects of the human brain during learning, behavior and disease. Many of their discoveries lead to better understanding of the way the human brain operates and new treatment considerations for diseases.
- **Biosensors:** Carnegie Mellon scientists have been trailblazers in biosensor chemistry, as demonstrated by the institution's leadership on a recent \$13.3 million, multi-institutional grant from the National Institutes of Health. A key player in this initiative, the Molecular Biosensor and Imaging Center has advanced the discovery of molecular probes to explore cell activities in real-time, research that ultimately will help identify disease-causing proteins and possibly lead to new drugs for treatment. Furthermore, Carnegie Mellon engineers and scientists have leveraged the school's top 10 engineering program to develop a Center for Implantable Biosensors, which will conduct research that will eventually enable physicians to monitor patient healing or the ways that cells interact in the face of disease.

The Heinz Endowments last month awarded more than \$22 million to Carnegie Mellon. The gift will be used to strengthen the H. John Heinz III School of Public Policy and Management, expand teaching and research in green chemistry and sustainability and encourage more innovations in robotics and computer science.

The majority of the grant — \$13 million — will support the Heinz School's strategic plan, which includes the creation of a new school of information systems management (IS). The IS school will serve as a counterpart with the Heinz School of Public Policy and Management to form a new college, the name of which is being finalized. The gift will be used to increase the college's endowment, allow the hiring of new faculty and renovate classroom and conference facilities.

"We are deeply grateful to The Heinz Endowments for this remarkable gift, which we believe will have a transformational impact not only on the Heinz School but also on the region," said Carnegie Mellon President Jared L. Cohon. "This gift will be essential to helping the new college attract and train the best faculty and students in the information systems field — a field in which Pittsburgh has the potential to be a world leader."

Cohon also noted the significance of Carnegie Mellon's research in green chemistry, which is the beneficiary of the other major portion of The Heinz Endowments' grants — \$8.5 million.

"Green chemistry and the promise of sustainable products and technology have the potential for changing the world's environmental practices, with Pittsburgh as the starting point," he added.

The gift comes at an opportune time for the Heinz School, with information systems playing a greater role in helping companies and governments solve problems and provide services. The school has been creating a strategic plan to capitalize on the synergies between information systems and public policy.

"Over the years, one of the school's many strengths has been its ability to meld technical expertise and the social sciences to help solve real-world problems," said Mark Wessel, dean of the Heinz School. "The structure of the new college will enhance these strengths, allowing us to train more globally aware and technically astute professionals."

The gift will allow the new college to hire additional faculty and aggressively recruit the best and brightest students, Wessel said. In addition, the Heinz School seeks to partner with firms that rely on information technology as a key part of their business strategy. Integrating the two schools under the college's new name won't be a problem, Wessel added, noting that Heinz professors will have appointments at the college level.

The green chemistry funding will be dedicated to an endowment increase and program expansion. Carnegie Mellon Thomas Lord Professor of Chemistry Terry Collins is considered a leader in the green chemistry field.

"Thanks to the efforts of Terry Collins and his colleagues, Carnegie Mellon has long been a leader in green chemistry, and The Heinz Endowments have been an important partner in this work," said Vice President of Research Richard McCullough. "This latest gift from the endowments will help secure the university's and our region's robust position in sustainability, environmental science and green chemistry."

Other grants provided to Carnegie Mellon by The Heinz Endowments include a \$650,000 gift to enable faculty, students and professionals from the university's Field Robotics Center to refine innovations they have developed for the Defense Advanced Research Projects Agency Urban Challenge Robotics Competition. The endowment also awarded \$400,000 to the Computer Science Department to support the emerging field of human-centered computing.

Shhhhh . . . Doherty Hall Project Quietly Moves Forward

■ Bruce Gerson

It's the best-kept secret on campus, according to Ralph Horgan. And no, it's not the Classic Wrap at Si Señor.

Horgan, the associate vice provost for Campus Design and Facility Development (CDFD), is referring to Phase II of the Doherty Hall renovation project, a \$28.2 million effort that will result in new cutting-edge chemical engineering labs and offices, and new studios and workshops for the School of Art.

Horgan says the project is no secret — it began two summers ago — but when folks see the exterior work being done to the north wing of Doherty, they assume it's part of the adjacent construction for the new School of Computer Science Complex. "Wait till the leaves come off the trees along the Cut between the Purnell Center and Doherty Hall. Then people will say, 'Oh, so that's the Doherty Hall project,'" Horgan predicted.

After it is completed in August 2008, the north wing exterior of Doherty will strongly resemble the south wing, showcasing new vertical ductwork risers in a glass enclosure. In addition to the ductwork, the 16,000-square-foot, seven-story addition will house a new elevator that will bring accessibility to all levels of the building's eastern portion, a fire stairwell, air-handling units, heating and cooling systems and emergency power to support the new labs.

CDFD Senior Project Manager Ed Hydzik said putting these components in a new exterior addition helps to maxi-

mize the interior space, which includes 81,000 square-feet of renovated space, plus 66,500 square-feet of life safety systems throughout the balance of the building.

Those renovations include chemical engineering labs for solid state materials, bioengineering and complex fluids on floors 1, 2 and 3, respectively, as well as offices for process systems engineering on floors 3 and 4. A new Center for Atmospheric and Particulate Study (CAPS) lab will be housed on level B. The School of Art will enjoy renovated woodshops, and studios for sculpture and environmental projects on levels C and D. A green roof, which will include a mini-amphitheater, will be accessible from level B. The new mechanical equipment room is on level C under the green roof, and a new loading dock for the facility will be on level D.

"Seeing the construction process in progress is quite remarkable," said Andy Gellman, professor and head of the Chemical Engineering Department. "The renovation of Doherty Hall is perhaps the most exciting development for Chemical Engineering in many decades."

Gellman said the new laboratories and research offices are being designed to facilitate collaboration between student groups. He said the labs, which will be large open spaces, would also be flexible as needs for space evolve.

While the new labs, offices, work-



PHASE II OF THE DOHERTY HALL RENOVATION PROJECT CAN BE SEEN THROUGH THE TREES BETWEEN THE PURNELL CENTER AND THE DOHERTY HALL FRONT ENTRANCE.

shops, studios and green roof will be the components most talked about upon completion, Hydzik said an important aspect of the project falls under the life safety category. "We're making many improvements in the labs and workshops with regard to life safety issues," he said. "Sprinklers, fire alarms and emergency power systems are all being upgraded. This is very critical to the project."

Amy Sockaci of Burt Hill is the lead

architect on the project, and Jendoco Construction Corp. is the lead contractor. "It's exciting to see this all come to fruition," said Sockaci, who's been working on the project for several years.

The \$26 million Phase I of the Doherty Hall project, which resulted in new state-of-the-art interdisciplinary science and chemistry labs on the building's south wing, began in 2001 and was completed in 2003.

Armband Device Can Control Temperatures, Save Lives



■ Eric Sloss

As the weather grows colder, the elderly become particularly vulnerable to hypothermia, which kills an average of 100,000 people each year, according to the Center for Disease Control and Prevention.

Furthermore, an elderly person may find the simple task of walking across a room to adjust the thermostat physically

THE "SMART THERMOSTAT" DESIGNED BY SCHOOL OF ARCHITECTURE DOCTORAL STUDENT JOONHO CHOI MAY ALLOW PEOPLE TO ADJUST THE TEMPERATURE FROM ACROSS THE ROOM.

overwhelming, exacerbating any other health conditions that might increase the risk for hypothermia.

Carnegie Mellon graduate student JoonHo Choi recently completed a pilot study of a device that would allow the elderly to control the temperature without moving a muscle. The doctoral candidate in the School of Architecture has designed a "smart thermostat" with a mechanical device that a person can wear around his or her wrist or arm to control the temperature in different rooms.

The device works by collecting body temperature data from the person wearing it. The data is then transmitted wirelessly via a network of sensors to a control panel. Based on the body temperature information, the panel adjusts the temperature to create a comfortable atmosphere.

While the device is still in its research phase, it could someday protect thousands of people from extreme weather conditions and the health risks that come with them.

Mascot's Identity Revealed CONTINUED FROM PAGE ONE

detail for the design of our Scottish terrier," Bassett said. "The committee and the designers from SME developed some concepts, but the focus groups effectively created a consensus that we hoped to achieve."

Sophie Nassif, director of university initiatives for the Marketing

Communications Department, said that more activities are being planned to promote the mascot and the university's new graphic identity. Once a Scottish terrier costume is complete, the mascot will greet fans and community members at university events. Interactive Web and video

elements will be available on Carnegie Mellon's Web site and iTunes U. The University Store, which is selling official Scottish terrier t-shirts, will expand its selection of merchandise in time for the holidays.

Q & A With Francesca Gino: Ethics Slipping in Modern Workplaces

■ Geof Becker

In light of highly publicized corporate scandals like Enron and Tyco, it seems as though workplace ethics aren't quite as important as they used to be. In fact, *are* today's employees and organizational leaders more willing to check their ethics at the office door? The answer is yes, according to Francesca Gino, visiting assistant professor of organizational behavior and theory and manager of the Center for Behavioral Decision Research at the Tepper School of Business.

Gino is co-author of a recent paper on ethics, "Slippery Slopes and Misconduct: the Effect of Gradual Degradation on the Failure to Notice Others' Unethical Behavior." She conducted her research in partnership with Max Bazerman, the Jesse Isidor Strauss Professor of Business Administration at Harvard's business school.

Q: Are people becoming more or less unethical in the workplace?

A: Research shows that people are becoming more unethical, and what's interesting is that through laboratory experiments we can look at different factors to try to explain why this might be so. One of the things we found is what we call the Robin Hood effect – people are more likely to steal when lots of resources are likely to be available, when the organization or the boss is wealthy.

Q: What role might an organization's leaders play in fostering a more ethical climate?

A: We did a study where we rewarded unethical behavior with incentives. We found that people behaved unethically with and without incentives. So the role of incentives is that they exacerbate unethical behavior, but unethical behavior occurs in cases in which there are small degradations over time even without incentives. So, I think the role of leaders is to have these review moments in which they clearly compare behavior of people working in the organization at different moments of time and try to pay attention to small changes in behavior as much as to large changes.

Q: The paper compares the slippery slope of unethical behavior with the "boiling frog syndrome," in which a frog dropped in cold water that is slowly heated is unaware of the danger and gradually cooks to death. How does this relate to your research?

A: It's actually a very good metaphor. There are many situations in our life or work in which we deal with very small changes over a period of time. If we look at changes over a year or longer, we can often see that our behavior degraded a lot, ethically speaking.

Q: Could well-known corporate scandals, such as Enron or World-Com, have been prevented with a better appreciation for the gradual erosion of ethical standards?



PHOTO BY KEN ANDREYO

FRANCESCA GINO, VISITING ASSISTANT PROFESSOR OF ORGANIZATIONAL BEHAVIOR AT THE TEPPER SCHOOL OF BUSINESS, EXPLORES THE DETERIORATION OF ETHICS IN THE WORKPLACE.

A: That's an interesting question. There is a debate in the ethical literature where some people believe it's a case of a few bad apples. But more recently, research has shown that's not the case. Everybody, in certain situations, might behave unethically. The scary part is oftentimes that happens without people being aware they are behaving unethically.

Q: How might people avoid sliding down this slippery slope?

A: One idea would be to have regular reviews where we reflect on our behavior or if we are part of an organization, the people we work for could compare our behavior up to a certain point in time and reflect about any changes. But if

these reviews are too frequent, we might not recognize the changes.

Q: In your research, you suggest that Human Resources departments are the best place to begin the process of changing an organization's culture. Why there and not with the CEO or other organizational leader?

A: I think HR has a vital role in creating a process to deliver the standards that are important for reinforcing ethical behavior, but CEOs have an important role, too. Through examples and their own behavior, they can show that ethical behavior is valued and also that if people see unethical behavior they should report that.

Highland Ambassadors Program Connects Students and Alumni

■ Abby Houck

Damian Valdes, a sophomore business administration major, enthusiastically discusses his experiences at Carnegie Mellon with fellow passengers on flights home to Texas. When representatives from the Office of Alumni Relations began recruiting students for its new Highland Ambassadors Program this fall, he thought it would be a great way to share his experi-

ences with a much larger audience.

"We're helping Alumni Relations to provide visitors with a tangible connection to students," Valdes said.

The Highland Ambassadors Program provides students a unique opportunity to interact one-on-one and in small groups with high-profile alumni, board members and campus visitors. The students attend training focused on Carnegie Mellon's approach to alumni relations, as well as cultural sensitivity,

donor relations, the history of Carnegie Mellon and etiquette.

Highland Ambassadors participate in activities such as President's Weekend, campaign events for top donors and fundraising prospects, Homecoming and Reunion Weekend, Spring Carnival and events for the board of trustees.

"We're exposing a group of students to the work of University Advancement, and in return, they are educating their fellow students about the resources that the division brings to Carnegie Mellon," said Dan Barnett, director of on-campus programs for Alumni Relations.

Highland Ambassadors are selected for their leadership skills, academic achievement and school spirit. The 12 members of the program are Joel Bergstein, Eric Blood, Sharon Briggs, David Farkas, Anna Goddard, James Harrell III, Lauren McMicken, Nisha Phatak, Damian Valdes, Swati Varshney, Judith Vogel and Natalie Weir.

Weir, a junior chemistry major, said she joined the program to interact with students outside of her major and meet

individuals connected with the university who she otherwise would not have a chance to meet.

As the program becomes more established, membership likely will grow to 60 ambassadors. Jahna Steiner, assistant director of on-campus programs, said increasing the number of participants will enable small groups of Highland Ambassadors to attend school or department-sponsored events. Through a system established by Alumni Relations, members of University Advancement can request and evaluate Highland Ambassador participation through the division's intranet. Steiner said request and evaluation forms will be made available online to all faculty and staff as the program's membership grows.

The next round of recruiting for the Highland Ambassadors will take place in the spring semester. Interested students will be asked to complete an application and interviewing process. For additional information on the program, e-mail highland-ambassadors@andrew.cmu.edu or call 412-268-1209.



PHOTO BY DAN BARNETT

THE 12 CARNEGIE MELLON STUDENTS PARTICIPATING IN THE HIGHLAND AMBASSADORS PROGRAM ARE TAKING ADVANTAGE OF A UNIQUE OPPORTUNITY TO INTERACT WITH ALUMNI, BOARD MEMBERS AND CAMPUS VISITORS.

Carnegie Mellon Confers Honorary Doctorates on Former Indian President Kalam, Archbishop Tutu

■ Ken Walters

Former Indian President A.P.J. Abdul Kalam and the Archbishop Desmond Tutu received honorary doctorates from Carnegie Mellon in special ceremonies last month, marking the first time that such a degree was conferred outside of commencement.

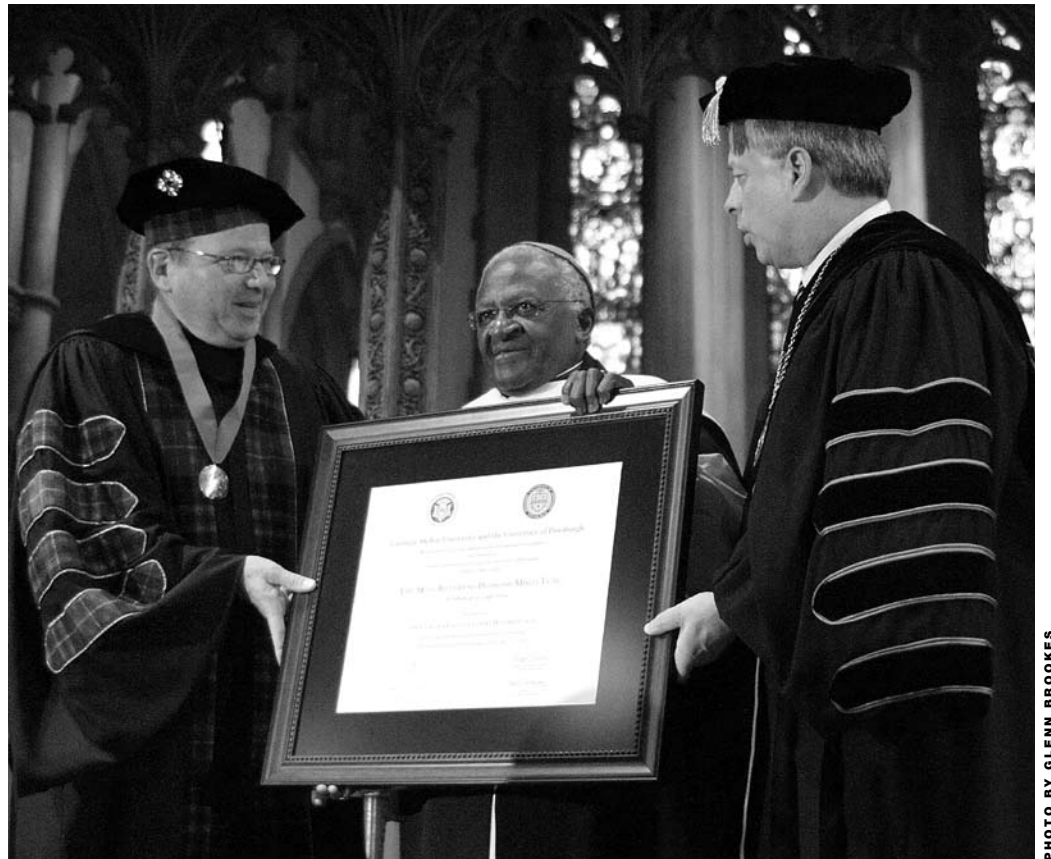
Kalam, who completed his presidential tenure in July, received a Doctor of Science and Technology degree from the university. During his five-year presidency, Kalam focused efforts to transform India from its present developing nation status to a developed nation by 2020. He has also provided a road map for energy independence of the country by 2030. His book, “India 2020 – A Vision for the New Millennium,” is popular throughout India and has been translated in many languages.

“As an engineer, educator, leader of a great nation and world statesman, Dr. Kalam has inspired millions with his commitment to science and technology as instruments of peace and global development,” Carnegie Mellon President Jared L. Cohon said. “We especially honor his unswerving belief in the transformative power of learning.”

“[The] higher the number of creative minds in an organization, the best results of invention and discoveries will emerge,” Kalam told an audience of more than 600 people at the ceremony in Rangos Ballroom. “A unique academic environment results into great thinking that leads to creativity. Carnegie Mellon is one of the great example(s) for this creative environment.”

Sunil Wadhvani, chief executive officer of iGate Corporation and a vice chairman of Carnegie Mellon’s Board of Trustees, lauded Kalam as both a statesman and an educator.

“He is truly a remarkable human being who sets an inspiring example of how much can be accomplished in one life,” Wadhvani said. “President Kalam has shown it is possible to have big dreams,



CARNEGIE MELLON PRESIDENT JARED L. COHON AND UNIVERSITY OF PITTSBURGH CHANCELLOR MARK NORDENBERG PRESENT ARCHBISHOP DESMOND TUTU WITH A JOINT HONORARY DOCTORATE FROM THE TWO UNIVERSITIES AT CALVARY EPISCOPAL CHURCH IN SHADYSIDE.

make a difference and do it without compromising values.”

Kalam made his first trip to Pittsburgh to present Indian industrialist Ratan Tata with the Carnegie Medal of Philanthropy during an awards ceremony at the Carnegie Music Hall in Oakland. He also met with Carnegie Mellon students and faculty during his two-day visit to the campus.

“The university took the unusual step of awarding his honorary degree at a special academic convocation to take advantage of President Kalam’s presence in Pittsburgh for the Carnegie Medals of Philanthropy events,” Cohon said. “Dr. Kalam is not able to travel such a long distance very often, and we were very pleased to have this opportunity.”

Carnegie Mellon awarded an honorary doctorate to Archbishop Tutu during the Nobel Peace Prize winner’s visit to Pittsburgh. The degree – the first such honorary degree to be awarded jointly with the University of Pittsburgh – was conferred at a ceremony at Calvary Episcopal Church in Shadyside. Tutu also gave a sermon at the event as part of an Interfaith Service for Justice and Peace.

“Rare things continue to happen in His Grace’s presence, as he continues his urgent work for peace and justice. The University of Pittsburgh and Carnegie Mellon are proud and grateful to be able to honor him in this way,” Cohon said at the ceremony.



UNIVERSITY PROFESSOR DICK TUCKER (LEFT) AND PROVOST AND SENIOR VICE PRESIDENT MARK KAMLET PRESENT FORMER INDIAN PRESIDENT A.P.J. ABDUL KALAM WITH HIS HOOD AS PART OF LAST MONTH’S CEREMONY AWARDING HIM AN HONORARY CARNEGIE MELLON DOCTORATE.

Sidewalk Café Opens at Gesling Stadium

■ Bruce Gerson

You could call it Gesling’s Stadium’s first luxury box.

The Tartans Pavilion, Carnegie Mellon’s newest place to eat, meet and greet friends, overlooks the playing field at Gesling Stadium giving customers a great view of athletic events, or just a neat spot to enjoy the scenery.

The new 4,100-square-foot eatery extends west from the Carnegie Café on the plaza adjacent to the West Wing and Resnik Hall. It includes a brick grill and oven for pizza and ho-

gies, and seating for about 100.

The new venue is enclosed by glass with seven glass garage doors facing the athletic field. The doors will be raised in nice weather and a canopy will extend outward, creating an outdoor sidewalk café. The interior features an “industrial loft” look with structural elements in plain view. The 12-foot high ceiling consists of tongue-and-groove wooden planks.

Bob Reppe, director of design for Campus Design and Facility Development, said the \$1 million project is the second phase of the effort to “reinvent”

the old Highlander Dining Hall. Phase one resulted in the Carnegie Café, which opened last year.

“The Tartans Pavilion will take some of the pressure off the University Center dining areas,” Reppe said. “We hope it will have a big impact on student life and create another popular spot for university events.”

The project was designed by Springboard, whose principals include Paul Rosenblatt, an adjunct faculty member in the School of Architecture, and Petra Fallaux, former director of the Regina Gouger Miller Gallery.

The Tartans Pavilion is not the only addition to the campus dining scene. Entropy, the convenience store located in University Center, has expanded and relocated.

With an additional 500 square feet of space, Entropy has bolstered its selection of fresh produce and added an array of products that cater to virtually any dietary preference, from gluten-free to vegan. Entropy remains in the UC, but it has moved to new space across from Si Señor and adjacent to the Merson Courtyard.

Women and Girls Foundation Honors Bassett For Accomplishments in Athletics

■ Andrea James

The Heinz Field East Club Lounge served as an appropriate venue to honor 25 extraordinary western Pennsylvania women for their achievements in and contributions to sports on local, national and international stages.

The occasion last month was the Women and Girls Foundation (WGF) of Southwest Pennsylvania's annual awards ceremony, which this year had the theme "Women in Sports: Leveling the Playing Field." Carnegie Mellon Athletic Director Susan Bassett was one of the women honored for their impact on the world of sports.

"It is a distinct honor to be recognized by the Women and Girls Foundation," noted Bassett. "I am delighted to be included with such an exceptional group of women leaders in the world of sport."

The celebration featured a keynote speech from 1984 Olympic gold medal gymnast Mary Lou Retton, who discussed her experience as a female in sports as the video of her historic Olympic performance played on a screen

behind her.

As a corporate table sponsor, Carnegie Mellon was able to offer a number of its female student-athletes the opportunity to attend the event and meet and mingle with honorees ranging from sports columnists and lawyers to professional athletes and coaches.

A total of 12 freshmen athletes were joined at the event by the children and friends of Head Men's Basketball Coach Tony Wingen and Assistant Director of Athletics for University Programs Mike Mastroianni. The Carnegie Mellon group represented the women's sports of soccer, basketball, volleyball, track and cross country.

Each honoree was presented to the audience by a local female athlete who wrote a paragraph describing what the honoree meant to them. Alexandra Davies, a varsity soccer player from Highlands High School, introduced Bassett.

"It was meaningful to be introduced by a student-athlete. Alexandra did a wonderful job and her introduction was



SUSAN BASSETT (SECOND FROM RIGHT) WAS JOINED BY (L TO R) SARA POMAYBO, SALLY WEBSTER AND MATT KINNEY AND MANY OTHER SUPPORTERS AT LAST MONTH'S "WOMEN IN SPORTS: LEVELING THE PLAYING FIELD" EVENT HONORING AREA WOMEN FOR THEIR ACCOMPLISHMENTS IN SPORTS.

quite gracious," Bassett said.

The program's "Jerseys and Jewels" theme prompted attendees to wear athletic jerseys as part of their ensembles for the night. The most significant jersey on display may have been the one worn

by Retton and the WGF staff, which had the WGF logo on the front and the number 52 with the "name" equality above it. The 52 is symbolic of the female population in the world, now 52 percent.

PHOTO BY TOM FITZPATRICK/VISUAL PERCEPTIONS INC.

Upcoming Events

Special Events

Spiritual Development Month Events

Campus-Wide Thanksgiving Celebration

Monday, Nov. 19
7 p.m.

UC Rangos 1/2/3

The Campus-Wide Thanksgiving Celebration is exactly that. We invite students, staff, and faculty to gather together to give thanks and to celebrate one another.

Faith: What Difference Does it Make to You?

A panel conversation sponsored by CMIC
Tuesday, Nov. 27
7 p.m.
UC Danforth Lounge

Interfaith Explorers and PUSH Movie Night
Wednesday, Nov. 28
7 p.m.

UC McConomy Auditorium

Shabbat at Hillel

Friday, Nov. 30
4:30 p.m.

Meet at the Morewood Gardens Turnaround

A Forum with President Jared L. Cohon

Tuesday, Nov. 27
Noon - 1 p.m., Rangos 3, UC
Sponsored by Staff Council

Madrigal Dinner 2007

Featuring the Carnegie Mellon Madrigal Singers
Saturday, Dec. 1
Reception, 6:30 p.m., Upstairs at the UC
Dinner, 7:30 p.m., Rangos Ballroom, UC
Tickets available at UC Information Desk
For more information, 412-268-4886

Drama Performances

"Guys and Dolls"

Nov. 29 - Dec. 8, Philip Chosky Theater, Purnell Center for the Arts
For tickets and show times, call the Drama box office at 412-268-2407

Exhibits

Patricia Maurides, Michelle Stitzlein and Julie Stunden

Three artists whose works have developed in recent time into mature collections of paintings, sculptures and multi-media explorations.
Through Dec. 21
Regina Gouger Miller Gallery

Learning & Development Classes

For more information and to complete the required registration form, visit:
<https://acis.as.cmu.edu/gale2/servlet/HRLearn2>

Influencing Skills

Nov. 27
9 a.m.
Connan Room, UC
You will learn influencing strategies by focusing on three skill areas: uncovering needs, connecting with others, and presenting information persuasively.

Human Resources Employee Module (HREM) Training

Dec. 6
9 a.m.
Whitfield Hall
HREM is used to enter employee appointment, salary, demographic and biographic information.

Talent Management System (TMS) Position Module Training

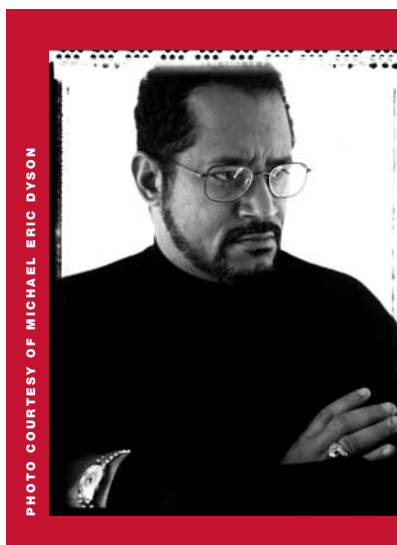
Dec. 11
9 a.m.
Whitfield Hall
The TMS is used to enter and edit position descriptions and post job openings to the Careers@Carnegie Mellon employment opportunities Web site.

Buyer Introductory Training

Dec. 11
9 a.m.
Whitfield Hall
This program will educate buyers on the university purchasing policy and their responsibilities and obligations when purchasing on behalf of the university.

Procurement Card Training

Dec. 13
9 a.m.
Whitfield Hall
This program will review the policies and procedures to use when purchasing goods / services with the procurement card on behalf of the university.



MICHAEL ERIC DYSON WILL BE THE KEYNOTE SPEAKER FOR THIS YEAR'S MARTIN LUTHER KING DAY PROGRAM. NAMED BY EBONY MAGAZINE AS ONE OF THE HUNDRED MOST INFLUENTIAL BLACK AMERICANS, DYSON, THE AUTHOR OF 14 BOOKS, IS UNIVERSITY PROFESSOR AT GEORGETOWN UNIVERSITY, WHERE HE TEACHES THEOLOGY, ENGLISH AND AFRICAN AMERICAN STUDIES. HIS LECTURE, WHICH IS FREE AND OPEN TO MEMBERS OF THE CARNEGIE MELLON AND PITTSBURGH COMMUNITIES, WILL TAKE PLACE AT 5 P.M., MONDAY, JAN. 21 IN RANGOS BALLROOM.

Lectures

School of Art

Osman Khan uses technology to construct artifacts and experiences for social criticism and aesthetic expression.
Nov. 20, 5 p.m., Kresge Recital Hall, College of Fine Arts

University Lecture Series

"Alan Turing's Computers and Our Computers"
Martin Davis, NYU and Cal Berkeley
Nov. 29, 4:30 p.m., Adamson Wing, Baker Hall 136A

School of Art

Trenton Doyle Hancock uses painting, printmaking, drawing, collage and sculpture to create a mythological world where the classic battle of good versus evil is acted out between his central characters, the Mounds and the Vegans.
Dec. 4, 5 p.m., Kresge Recital Hall, College of Fine Arts

Sports

Men's Basketball

Skibo Gym
Nov. 24-25, Radisson/Carnegie Mellon Tournament
Nov. 24:
1 p.m., Ohio Northern vs. Susquehanna

3 p.m., Carnegie Mellon vs. Haverford
Nov. 25:

1 p.m., Consolation Game
3 p.m., Championship Game
Dec. 20, 7 p.m., vs. Christopher Newport
Jan. 13, 1 p.m., vs. Lycoming
Jan. 18, 8 p.m., vs. Brandeis
Jan. 20, Noon, vs. NYU

Women's Basketball

Skibo Gym
Nov. 16-17, Radisson/Carnegie Mellon UAA/OAC Challenge
Nov. 16:
6 p.m., Case Western Reserve vs. Mt. Union
8 p.m., Carnegie Mellon vs. Otterbein

Nov. 17:
2 p.m., Case Western Reserve vs. Otterbein
4 p.m., Carnegie Mellon vs. Mt. Union
Jan. 14, 7 p.m., vs. Bethany
Jan. 18, 6 p.m., vs. Brandeis
Jan. 20, 2 p.m., vs. NYU

Swimming & Diving

UC
Nov. 17, 1 p.m., vs. Franklin & Marshall, Washington & Lee, and Rochester
Jan. 19, 1 p.m., vs. Allegheny

For more events, visit
<http://my.cmu.edu/site/events/>

Wireless Network To Undergo Powerful Upgrade

■ Bruce Gerson

Wireless Andrew is getting an upgrade. The group responsible for the world's first wireless computing network on a university campus will unveil a new and improved one, sporting the power and speed that users experience with most wired connections.

Computing Services, which made history in 1998 with the installation of Wireless Andrew, has joined with hardware vendors Aruba Networks and Xirrus, Inc., to equip the 144-acre Carnegie Mellon campus with new, more powerful access points that will increase the current wireless computing power nearly tenfold. Wireless Andrew 2.0 will elevate wireless computing speeds from today's rate of 11 megabits per second in most areas to near 100 megabits per second, enabling users to access the Internet, check their email and download files almost 10 times faster than they do today. In technical terms, the new access points support the emerging 802.11n standard.

"Carnegie Mellon is one of a handful of universities that are taking the next step in wireless computing," said Joel Smith, vice provost for Computing Services and chief information officer. "This university has been at the forefront of computing since the Andrew Network was created in the 1980s. From Andrew, came Wireless Andrew and now Wireless Andrew 2.0. This is a logical next move for Carnegie Mellon."

"Today, we view Wireless Andrew as a complementary network to our campus wired network," said Director of Network Services Chuck Bartel, "but with the speeds 802.11n will offer, we can start to consider Wireless Andrew 2.0 as a replacement for the wired network for some applications used on campus."

Bartel said the project goal is to provide connectivity that will rival the wired connections on campus, so the university community can benefit from the latest technological advances in wireless communication.

Dan McCarriar, assistant director of Network Services, said over the next several months Computing Services will be working with technicians from Aruba and Xirrus to survey campus buildings in an effort determine the best placement for the new antennas.

"The new technology will provide more power, more speed and greater coverage, all with less hardware," McCarriar said. "The equipment will be much more efficient."

Aruba's three-antenna access points will be deployed in the core academic and administrative buildings. Xirrus, whose access points are circular with internal antennas, will cover the residence halls.

McCarriar said the site surveys should be completed by January 2008, and installation will begin in early spring. He expects the project to be completed by the end of 2008.

You can stay abreast of the progress of Wireless Andrew 2.0, by visiting the project Web site at www.cmu.edu/computing/news/wireless2/.

RENOVATED WEST WING CLUSTER SCORES HIGH MARKS WITH STUDENTS

■ Maria Zayas

Since its re-opening in late September, the newly remodeled West Wing Collaborative Cluster has received an outstanding response from students, garnering high marks for its space, design and available technology.

Before renovating the West Wing cluster, which is located in the West Wing Residence Hall near the University Center, Computing Services conducted numerous surveys. They interviewed and conducted studies with focus groups—including students and faculty—to better understand student needs and cluster use. The group then worked with the Eberly Center for Teaching Excellence and the Office of Technology for Education to remodel the cluster.

"Our goal is to create clusters that meet students' needs. Each area on campus has its own specific needs. From the results of our work, we found that students needed an open space for collaborative work, where they can focus on team projects," said Kimberly Hennessey, a cluster service consultant and the project lead for the West Wing Collaborative Cluster.

The survey data revealed that the quality of classroom technology and overall comfort was more important to students than room flexibility and aesthetics. The top six desired physical features included Ethernet and AC outlets on desks; good ventilation; space for optional laptop use; larger tables to facilitate group work; optimal lighting that reduces monitor glare; and secure, personal storage where laptops can be recharged.

In response to these findings, the cluster's design features varied seating arrangements and an open space that accommodates different work styles in a comfortable atmosphere. Students can brainstorm on a whiteboard wallpaper, have convenient access to power outlets for laptop use and share information with a 46-inch LCD screen on a rotating stand. The cluster also features a "stop-in" kiosk-like area for checking e-mail, printing and scanning. Hennessey noted that since the cluster's opening, students have filled out an encouraging amount of Early Impression Feedback Cards with their reactions and suggestions on the cluster. For example, one student complimented the cluster for its "excellent design, arrangement and technology."

"I'm looking forward to further analyzing this data," Hennessey said. "Such a large response so soon is atypical and only happens when people are excited. I'm pleased about these changes and our work with clusters."

Computing Services continues to work with students and faculty to improve cluster services, and they encourage anyone to send questions, comments or suggestions to clusters@andrew.cmu.edu. Although the group has not yet found a new target for further cluster renovations, they are embarking on an estimated three to five-year project to redefine cluster services and spaces.

Maria Zayas is a work-study student in the Office of Media Relations.

Cookies, Pies and Pastries...Oh My!



PHOTO BY KELLI MCELHINNY

ALL OF THE TEMPTING FRESH BAKED GOODS SOLD AT CARNEGIE MELLON'S VARIOUS DINING VENUES ARE THE HANDIWORK OF THE CARNEGIE MELLON BAKERY'S HARD-WORKING NATALIE SEBULA (LEFT) AND DEBRA ZAVOLTA. ZAVOLTA AND SEBULA PRODUCE 5,000 COOKIES, 500 LARGE MUFFINS AND 70 HALF AND FULL SHEET CAKES PER MONTH, FOR STARTERS. FACULTY, STAFF AND STUDENTS LONGING FOR A WAY TO SATISFY A SWEET TOOTH NOT ONLY CAN BUY COOKIES, PASTRIES AND THE LIKE AT THE CARNEGIE MELLON CAFÉ OR ENTROPY, BUT THEY CAN ALSO PLACE SPECIAL ORDERS FOR ALL BAKERY ITEMS FOR ANY OCCASION THROUGH THE CAMPUS'S CATERING SERVICE. DINING MANAGER CHRIS BAIERBACH CAUTIONS THAT MORE ORDERS COME IN NEAR HOLIDAYS LIKE THANKSGIVING, CHRISTMAS AND VALENTINE'S DAY, SO A THREE-WEEK ADVANCE NOTICE IS RECOMMENDED FOR THOSE TIMES. CARNEGIE MELLON HOUSING AND DINING ALSO OFFERS A NUMBER OF CARE PACKAGES WITH THEMES RANGING FROM "MOVIE NIGHT" TO "GET WELL SOON" THAT CAN BE SENT TO MEMBERS OF THE CAMPUS COMMUNITY.

Tartan Football Player Grows “Locks of Love”

■ Mark Fisher

Pittsburgh Steelers safety Troy Polamalu may be recognized more by the hair flowing from his helmet than for his performance on the field. But he's not the only one.

Carnegie Mellon senior defensive lineman Clay Crites can be readily spotted from the highest bleacher thanks to the shock of blond hair that brushes the top of the number 37 on his jersey.

Unlike Polamalu, who plans to hang on to his tresses, Crites is growing his hair out to cut it and donate it to Locks of Love, a nonprofit organization that provides hairpieces to financially disadvantaged children.

While the hairpiece recipients suffer from a variety of medical conditions that result in hair loss, most of the children helped by Locks of Love have lost their hair due to alopecia areata, which has no known cause or cure.

Crites didn't have such philanthropic intentions when he set out to grow his hair long. A star on his high school baseball team, Crites was required by the coaching staff to keep his hair short. One day in the middle of his senior season, he decided that he wanted long hair. So, he started to grow his hair out and has kept it that way ever since.

He nearly cut it that summer, but

a challenge from loved ones motivated him to keep going.

“When I mentioned the idea of growing it out to donate it, my friends and family told me I wouldn't do it,” Crites said. “From then on I decided that I wasn't going to cut it and that I wanted to do something easy to help out someone in need.”

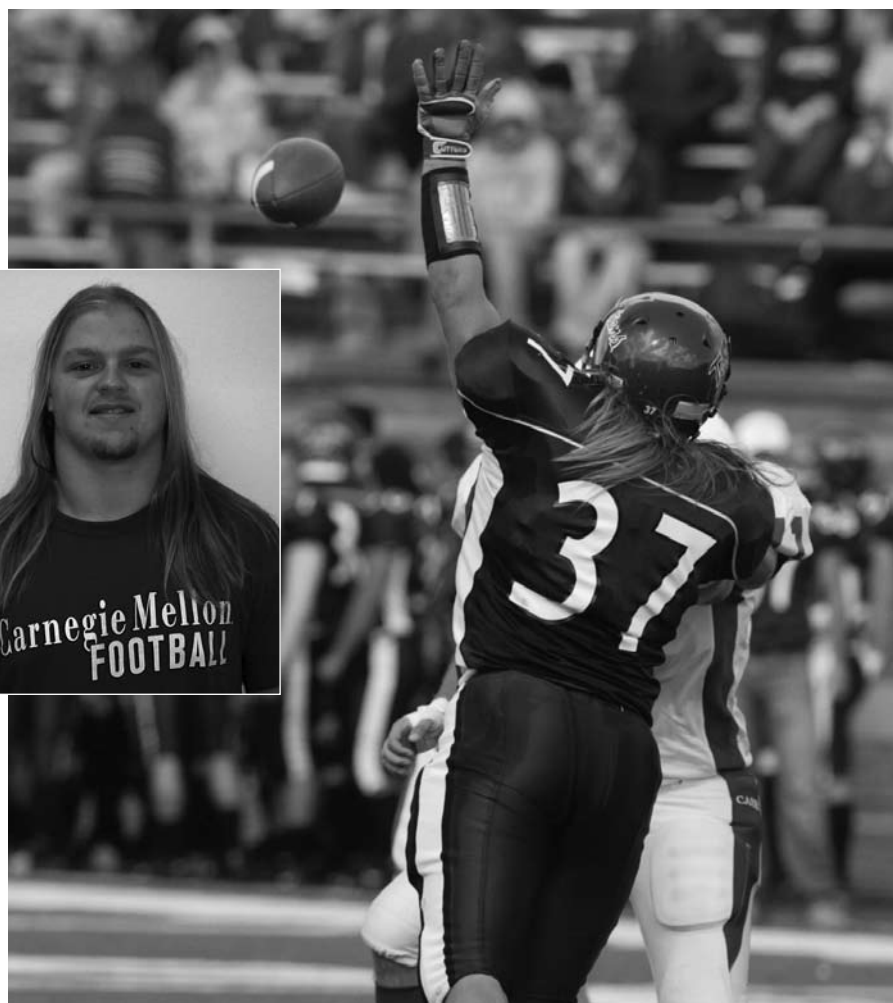
“I know a lot of kids who have done this, donated hair to Locks of Love, so I might as well keep growing my hair and donate since I have gone so far already.”

Although Crites has had long hair for more than four years, he said that it has taken a lot longer than he thought to meet the Locks of Love donation guidelines — hair that is at least 10 inches measured tip to tip. Crites still doesn't have an estimate on when he will reach that goal.

What do Crites' Tartan teammates think about the whole thing?

“There are a lot of guys on the team that like to call me ‘sunshine’ and a ‘pretty boy,’ but I know they are just joking with me and they appreciate what I am doing,” Crites said.

“Some of them are just jealous because they are going bald,” he added with a chuckle.



CARNEGIE MELLON SENIOR DEFENSIVE LINEMAN CLAY CRITES IS GROWING HIS HAIR OUT TO DONATE IT TO LOCKS OF LOVE, A NONPROFIT ORGANIZATION THAT PROVIDES HAIRPIECES TO FINANCIALLY DISADVANTAGED CHILDREN WHO HAVE LOST THEIR HAIR DUE TO MEDICAL CONDITIONS.

PHOTO BY MARTIN SANTEK PHOTOGRAPHY

Tartan Racing Wins Urban Challenge CONTINUED FROM PAGE ONE



MEMBERS OF THE CAMPUS COMMUNITY GATHERED TO WATCH A LIVE WEBCAST OF THE DARPA URBAN CHALLENGE RACE IN THE ADAMSON WING, BAKER HALL 1360A. THE EVENT WAS SO POPULAR THAT IT DREW A STANDING-ROOM ONLY CROWD AT TIMES.

phenomenal thing for robotics.”

Showing the world that autonomous driving technologies are robust and will ultimately make driving safer and more enjoyable has been a major goal of the 45-member Tartan Racing team.

“This is really a fantastic accomplishment,” Tether said. “I watched these things driving and I forgot after awhile that there was nobody in there.”

Autonomous driving technology

will save lives on the battlefield, he said, by removing soldiers from supply convoys and other vehicles in harm's way.

DARPA had declared Boss the top-rated robot in the event based on its performance on a series of qualifying runs at the former George Air Force Base in the week prior to the final event. Boss was slated to start first on Saturday morning, but radio frequency interference caused in part by a Jumbotron television moni-

tor next to the start chute jammed GPS signals to Boss. The TV monitor was subsequently shut down, the GPS signals returned and Boss was ready to go.

The delay cost Boss the pole position it earned in qualifying runs and resulted in Boss being the 10th robot to start. But the robot performed impeccably despite occasionally being caught behind slower moving vehicles in the early going. With each of its three required missions, Boss steadily gained time on its rivals.

“Everything that I saw Boss do looked great,” said Chris Urmson, the team's director of technology. “It was smooth. It was fast. It interacted with other traffic well. It did what it was supposed to do.”

Tartan Racing includes Carnegie Mellon faculty, staff and students from the School of Computer Science's Robotics Institute, as well as Carnegie Mellon's College of Engineering. It received major support from General Motors, Caterpillar and Continental AG. Strengthening the team were engineers from GM, Caterpillar, Continental and Intel who were embedded with the team in Pittsburgh.

Boss was rigorously tested during its development, with two identical versions of the machine logging more than 2,000 autonomous miles, many on the former

LTV site along the Monongahela River known as Robot City.

One of the team's advantages was a software system it developed called TROCS, which produced graphic animations of Boss' sensor and data inputs during each run. Much as game-day video allows the Pittsburgh Steelers to review and analyze their play, TROCS enabled Tartan Racing to understand what Boss saw as it drove and how and why it responded to its environment. Troublesome behaviors could be quickly identified and fixed, while appropriate behaviors, which might occasionally look odd to an observer, were left untouched.

Tartan Racing benefited from team members with experience in two previous DARPA Grand Challenge robot races, including Whittaker and Urmson, both of whom earned their doctorates from Carnegie Mellon. It also built on the wealth of expertise of the Robotics Institute, one of the largest robotic research and education organizations in the world.

In addition to GM, Caterpillar and Continental AG, Tartan Racing's sponsors include Intel, Google, Applanix, TeleAtlas, NetApp, Vector CANTech, Ibeo, Mobileye, HP, CarSim, CleanPower Resources, M/A-Com and McCabe Software.

PHOTO BY NICK THOMAS

SCS Conference for Women Features Computer Science Pioneer Fran Allen

■ Anne Watzman

Frances Allen grew up on a farm in upstate New York in the 1930s with no telephone, central heating, electricity or indoor plumbing — a far cry from IBM's Thomas J. Watson Research Center, where she serves as Fellow Emerita. However, Allen's humble origins didn't prevent her from going on to a successful career in computer science and becoming a female pioneer in the field. Allen, who this year became the only woman ever to receive the A.M. Turing Award — computing's highest honor — visited the School of Computer Science recently as a distinguished lecturer and keynote speaker at "Opportunities for Undergraduate Research in Computer Science" (OurCS), a first-of-its-kind conference that attracted 70 female undergraduates studying computer science to Carnegie Mellon last month.

OurCS gave teams of attendees the opportunity to work on real research projects, guided by scientists from academia and industry. The participants worked on a variety of topics ranging from "Disagreement in Wikipedia" to "Claytronics" and "A Multi-Robot Choreography." A diverse group of students from throughout the country and the world participated in the event.

Allen was impressed with what she saw.

"Coming to Carnegie Mellon has been an eye-opener," she said. "I've realized how unusual it is to have so much cross-disciplinary work and the expectation that students contribute to research on exciting new problems. It's a great place for women from just that point of view."

During her 45-year career at IBM, Allen had plenty of opportunity to see the fortunes of women wax and wane in



FRAN ALLEN SPEAKS WITH ATTENDEES OF THE OPPORTUNITIES FOR UNDERGRADUATE RESEARCH IN COMPUTER SCIENCE CONFERENCE HELD LAST MONTH AT CARNEGIE MELLON. ALLEN, THE ONLY WOMAN TO RECEIVE COMPUTING'S HIGHEST HONOR, THE A.M. TURING AWARD, GAVE THE KEYNOTE ADDRESS AT THE CONFERENCE.

the computer business. She was immersed in the field from its infancy in the late 1950s until she retired in 2002.

Now, there are more opportunities for women in computer science than when the field emerged as a science in the 1970s. The challenge lies in attracting women to take advantage of them. In many instances, computer science is being taught as a skill rather than as a science, a way of thinking and an opportunity of extending knowledge, according to Allen, and this may be a primary obstacle in drawing women to the field.

She said Jeannette Wing, Carnegie Mellon's President's Professor of Computer Science who is currently serving a two-year stint as assistant director for

Computer Science & Information Science and Engineering (CISE) at the National Science Foundation, is leading the vanguard toward a new way of thinking about the field. "Jeannette's paper on computational thinking made the idea light bulb flash on in my head," she said. "It was marvelous. It addresses just this issue."

Computer science is a rigor like mathematics, Allen said. It presents models of thinking and problem solution. But there's something more involving systems that hasn't been articulated. "We've built incredible computing and information systems that have changed the world, but we haven't done a good job of articulating the new science

behind these systems in a way that captures the imagination of students, especially women."

Allen has been and continues to be a mentor for female computer scientists in industry, but she expresses frustration with the focus on moving up the management chain as the visible way to excel.

"We've got to start recognizing and encouraging promising young technical women," she said, noting that women must be promoted and rewarded for their contributions. "Our field needs many more women in the pipeline for awards like the Turing. They are out there but often not as visible as they should be."

NEWS BRIEFS

Carnegie Mellon Earns Spot on "Coolest" List

Sierra Magazine, the national magazine of the Sierra Club grassroots environmental organization, ranked Carnegie Mellon the 10th "Coolest" School in its November/December 2007 cover story for the university's efforts against global warming and toward creating a greener campus.

The survey, which considered everything from university green-building policies and clean-energy purchases to campus food quality and bike facilities, was the magazine's first on college and university green practices. The "Top 10 That Get It" list of universities and colleges excluded the Eco League, the United State's only environmentally themed consortium made up of five small liberal arts institutions (Alaska Pacific University, College of the Atlantic, Green Mountain College, Northland College and

Prescott College.)

Carnegie Mellon was ranked 10th for several green initiatives on campus, including the university's student-designed green roofs atop The Posner Center and Hamerschlag Hall, the nation's first eco-friendly residence hall, New House, and the Collaborative Innovation Center, which features a modular raised-floor system that doubles the amount of fresh air that circulates throughout the building.

The other schools in Sierra's top 10 were, in order: Oberlin, Harvard, Warren Wilson College, the University of California system, Duke, Middlebury, Berea College, Penn State and Tufts.

Meanwhile, Carnegie Mellon earned improved grades in the second edition of the College Sustainability Report Card and was named a Campus Sustainability Leader. Newsweek's fall Current magazine identified Carnegie Mellon as one of "16 Schools that Care" for its rooftop

gardens and for providing transportation options like carpooling, bus passes and shuttle buses and using alternatively-fueled vehicles.

AlertNow Provides Text Messaging Option

The university's AlertNow emergency notification service now includes a text messaging option. The expansion of service will enable AlertNow to send voice and/or text messages to registered phones in the event of an emergency on campus.

All members of the campus community are encouraged to participate in the AlertNow program by signing up online at <https://my.cmu.edu/site/main/page.alert> (when you click on this link, you will need to login with your username and password to access this page).

The privacy of your contact information is guaranteed. You will be contacted by the Alert-

Now system only if there is an incident/event that threatens public safety or during tests of the system in the spring and fall semesters. Please note that the text and voice options may carry a nominal fee for recipients, depending on your cell phone carrier and cell phone plan. The recipient is responsible for these fees.

If you have any questions or problems registering your information, please contact the Computing Services Help Center at 412-268-HELP (4357) or send email to advisor@andrew.cmu.edu.

Athletics Department Launches Webcasts

In the age when video catches everyone's attention, the Department of Athletics has started webcasting their sporting events for fans, family and alumni. In conjunction with the university's Network Media Group, the sports information

staff has made Carnegie Mellon the first school in the University Athletic Association to stream live video of soccer and football games. Basketball games and track and field events are being considered for future webcasting.

With 12 states represented on its roster of 20, the women's soccer team may benefit the most from this new service. Thirteen players live more than five hours away from home, making traveling to games difficult for their parents. The live video gives parents a chance to watch their daughters perform and become more familiar with Carnegie Mellon and the Department of Athletics from a distance.

Spiritual Development Explored in November

Carnegie Mellon's November calendar is filled with a variety of events commemorating Spiritual Development Month, a Student Development Office-sponsored initiative that focuses attention on the importance and significance of exploring one's spirituality through religious and non-religious avenues. A campus-wide Thanksgiving celebration scheduled for the Monday before Thanksgiving break highlights the schedule, which also includes "faith field trips" to various local houses of worship, panel discussions and invited lectures. More information, including a detailed schedule, is available at www.studentaffairs.cmu.edu/student-development/spirituality/developmentmonth.html.

Extra! Extra! Read All About It!

Want to keep tabs on who's making news on campus? Visit <http://www.cmu.edu/news/index.shtml>, which features a number of resources from Carnegie Mellon's Office of Media Relations.

The site includes a News Clips section that is updated every Friday and highlights Carnegie Mellon people making local, national and international headlines. The News Blog offers a different take on current events with regularly posted entries that showcase the campus' research, people and events or weave a Carnegie Mellon thread into the day's big story. The News Blog recently ventured into the world of live blogging during events, as well.

Press releases and a featured events section are other vehicles by which the site informs the campus community, and site visitors can also subscribe to an RSS feed to have Carnegie Mellon headlines delivered to their inboxes. Online versions of the Piper and the weekly 8 1/2x11 Newsletter can also be found on the site.

Brockmann Receives German Studies Prize

The American Institute for Contemporary German Studies (AICGS) has awarded its DAAD Prize for Distinguished Scholarship in German and European Studies to German Professor Stephen Brockmann. The highly competitive award is given annually to an exceptional scholar, who is an American citizen or resident, in one of the institute's three areas of research: policy studies, economics or culture and politics.

Brockmann, who has been a member of the Carnegie Mellon faculty since 1993, is an accomplished scholar in the field of German studies, which blends the study of German

literature, history and politics. His work examines the relationship between literature and culture and German national identity.

The AICGS presented Brockmann with the DAAD Prize, which carries a \$5,000 stipend, at the organization's Global Leadership Award Dinner Nov. 15 in New York City. DAAD is an acronym for the German Academic Exchange Service (Deutscher Akademischer Austausch Dienst), which supports the prize.

Klahr Named Bingham Professor

Carnegie Mellon has named leading education researcher and psychologist David Klahr the Walter van Dyke Bingham Professor of Cognitive Development and Education Sciences. Klahr is one of an increasing number of scientists who have made Carnegie Mellon into a leading center of educational research, although the university has no school of education.



Klahr is the training director of Carnegie Mellon's Program in Interdisciplinary Education Research (PIER), which trains doctoral students from several disciplines to conduct applied educational research. He is also the education director of the Pittsburgh Science of Learning Center, a joint venture between Carnegie Mellon and the University of Pittsburgh that sponsors rigorous research into how people learn and develop innovative learning technologies and strategies. In April, he became the first Carnegie Mellon faculty member to be elected to the National Academy of Education.

American Chemical Society Honors McCullough

Richard D. McCullough, vice president of research and professor of chemistry, received the 2007 Pittsburgh Award from the Pittsburgh Section of the American Chemical Society (ACS) at its awards dinner held last month.

McCullough was recognized for his "innovation and research prowess combined with his leadership skills and contributions to the local economy." In addition to his research and service at Carnegie Mellon, McCullough is the founder of Plextronics, a world leader in developing active layer technology for printed devices.

The Pittsburgh Award was established in 1933 by the Pittsburgh Section of ACS to recognize outstanding leadership in chemical affairs in the local and larger professional community. The award is a symbol of the honor and appreciation accorded to those who have rendered distinguished service to the field of chemistry.



Kanade To Be Honored With Okawa Prize

Takeo Kanade, the U.A. and Helen Whitaker Professor of Computer Science and Robotics, is the 2007 recipient of the Okawa Prize, sponsored by the Japan-based Okawa Foundation for Information and Telecommunications.

Kanade will receive the prize, which publicly recognizes people who have made outstanding international contributions to research, technological development and business in the information and telecommunications fields, at a Nov. 21 award ceremony in Tokyo, where he'll receive a certificate, gold medal and a prize of 10 million yen (approximately \$86,000 dollars).

Kanade is the second Carnegie Mellon faculty member to be honored with the Okawa Prize. Raj Reddy, the Mozah Bint Nasser University Professor of Computer Science and Robotics, received the prize in 2004.



Drama Graduate Student Wins Javits Fellowship

Dale Fanning, a graduate student in the School of Drama's lighting design program, has been awarded the Jacob K. Javits Fellowship for graduate study in the arts, humanities or social sciences. A panel of academicians and scholars selected Fanning based on his achievements, future promise and financial needs.

The fellowship, offered by the U.S. Department of Education and named for the late New York senator known for his advocacy for education and the arts, may be renewed for up to four years or to the completion of the degree and provides funding and a stipend for students doing graduate work. Based on need, the fellowship recipient receives a stipend up to \$30,000 and the school receives a payment of \$12,627 toward tuition.

United Way Campaign in Full Swing

Carnegie Mellon's United Way Campaign is under way. Last year, the university community raised more than \$187,000 for United Way of Allegheny County, which marked its strongest campaign to date. This year's goal is to increase participation from the 10 percent recorded last year to 15 percent.

"It is important to keep this trend going," said Barbara Smith, associate vice president and chief Human Resources officer. "The strength of a community is directly influenced by the health and well-being of its residents. As the community's fundraiser, United Way of Allegheny County streamlines the process of getting resources to agencies that are affecting critical community needs."

The agencies helped by United Way include Boys and Girls Clubs of Western Pennsylvania, The Center for Hearing and Deaf Services and Mercy Behavioral Health, among many others. Donations can be made online at www.unitedwaypittsburgh.org/carnegiemellon.

Drama, CLO Partner With ASCAP Foundation, Stephen Schwartz

The School of Drama and the Pittsburgh CLO have announced a new partnership with The ASCAP Foundation and composer/lyricist and Carnegie Mellon alumnus Stephen Schwartz to develop new musicals as part of the Pittsburgh CLO/Carnegie Mellon University School of Drama New Works Program.

The ASCAP Foundation and Schwartz will select this initiative's musicals from participants in the prestigious ASCAP Foundation/Disney Musical Theatre Workshop, which is part of the foundation's ongoing commitment to nurturing new American musicals. The first musical selected for further development through the partnership was "Alive at Ten" by Ryan Scott Oliver and Kirsten A. Guenther, which was explored in a six-day workshop that culminated in an Oct. 20 staged reading for invited guests in the Helen Wayne Rauh Studio Theater.

Drama's Bradley Leaving for NYU

Elizabeth Bradley, head of the School of Drama since September 2001, will leave Carnegie Mellon at the end of the 2007-08 academic year to become chair of the Department of Drama at New York University's Tisch School of the Arts. During her time at Carnegie Mellon, she implemented a new curriculum, created the International Artist Residency program, instituted the student collaborative training program "Playground," and reinforced the school's reputation in the theatre arts industries.

In 2004, she was appointed artistic director of the Pittsburgh International Festival of Firsts bringing artists from around the world to showcase their work in Pittsburgh and to train and teach students. Bradley was also instrumental in creating the stage management, sound and dramaturgy foci and recruited many gifted faculty.

ETC Faculty, Students Attend SATE Conference

ETC faculty member Brenda Harger led a contingent of ETC students attending the first annual Storytelling, Architecture, Technology, and Experience (SATE) Conference in Orlando, Fla. Created by the Themed Entertainment Association of America, SATE focuses on the convergence of the four areas as 21st century cornerstones of experience, design and planning. SATE attendees were treated to two-days of talks and discussions centering on these topics. Following the conference, the ETC students shuttled SATE attendees to the 'Give Kids the World' resort/village in Kissimmee, Fla., to tour this unique facility and to see the various interactive installations created and installed by the ETC over the last three years.

Madrigal Dinner Slated for Saturday, Dec. 1

THE 2007 MADRIGAL DINNER IS SLATED FOR SATURDAY, DEC. 1 WITH A RECEPTION BEGINNING AT 6:30 P.M. ON THE SECOND FLOOR OF THE UNIVERSITY CENTER AND DINNER SCHEDULED FOR 7:30 P.M. IN THE RANGOS BALLROOM. THE MADRIGAL DINNER FEATURES A VARIETY OF ENTERTAINERS, INCLUDING JUGGLERS, MAGICIANS AND MIMES AND THE CARNEGIE MELLON MADRIGAL SINGERS DIRECTED BY ROBERT PAGE. THE MENU FEATURES BRAISED BEEF AS AN ENTRÉE, AND A VEGETARIAN OPTION IS AVAILABLE AS WELL. ATTENDEES ARE ENCOURAGED TO WEAR COSTUMES TO THE EVENT.



PHOTO COURTESY OF ANNE WITCNER

Read more about what's going on at Carnegie Mellon in the Upcoming Events on page seven.

“Carnegie Cadets” Game Helps Students, Parents Become Cyber Savvy

■ Chriss Swaney

Whether their children are shopping, chatting or doing homework online, parents are increasingly on edge about Web safety.

“Carnegie Cadets: The MySecureCyberspace Game,” an interactive cyber safety game created by Carnegie Mellon’s Information Networking Institute (INI) and Carnegie Mellon CyLab, is helping students and parents become more cyber savvy.

“The key is to keep your children interested by introducing the concepts interactively, and keeping that balance between fun and learning,” said INI Director Dena Haritos Tsamitis.

Last month, Attorney General Tom Corbett and students at the J.H. Brooks Elementary School in the Moon Area School District helped demonstrate “Carnegie Cadets.” Before the demo, students in several area schools played pilot versions of the game then gave Carnegie Mellon researchers feedback on what worked and what didn’t so the game could be tweaked.

In Carnegie Cadets, children enter a cyber academy to take on missions that teach them how to secure cyberspace by fighting Internet criminals such as Elvirus and MC Spammer. Children get points for completing the missions and teaching other cadets what they learn about cyber threats. They can use those points to buy virtual items to decorate virtual dorm rooms.

“President Bush’s strategy to secure the nation’s cyberspace is the impetus for the game,” Tsamitis said.

A 2006 survey conducted by Carnegie Mellon and marketing research firm Campos Inc. found 97 percent of the 500 Allegheny County residents interviewed not only wanted to know more about cyber safety, but they wanted simpler tools to monitor their child’s online activities. The survey also reported that half of the parents and guardians preferred cybersafe tutorials be offered online.

“We did a lot of market research before developing the game and that really gave us the drive to keep pushing the research envelope to develop the game,” Tsamitis said.

A companion Web site with interactive learning activities related to Internet safety is available at the MySecureCyberspace Web portal, www.MySecureCyberspace.com. The game can be found at www.CarnegieCyberAcademy.com.

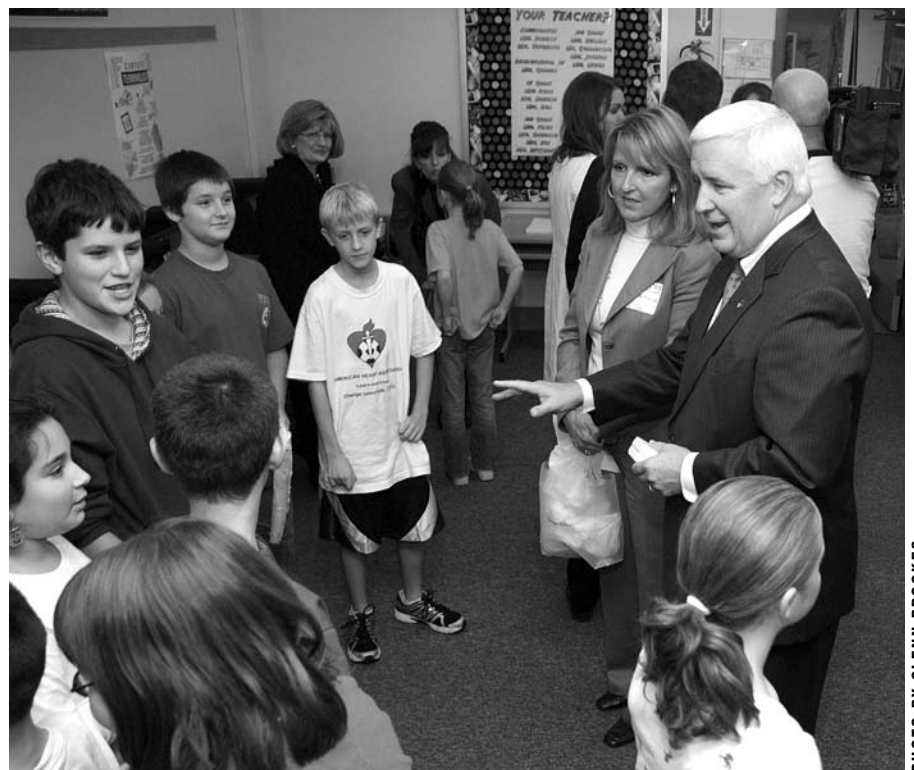


PHOTO BY GLENN BROOKES

PENNSYLVANIA ATTORNEY GENERAL TOM CORBETT AND INFORMATION NETWORKING INSTITUTE DIRECTOR DENA HARITOS TSAMITIS VISIT WITH STUDENTS AT THE J.H. BROOKS ELEMENTARY SCHOOL IN THE MOON AREA SCHOOL DISTRICT TO DEMONSTRATE “CARNEGIE CADETS: THE MYSECURECYBERSPACE GAME.”

HAVE A PIPER STORY IDEA OR SUGGESTION?

WE’D LOVE TO HEAR FROM YOU.

EMAIL BRUCE GERSON (BG02@) OR

KELLI McELHINNY (KELLIM@) WITH YOUR INPUT.