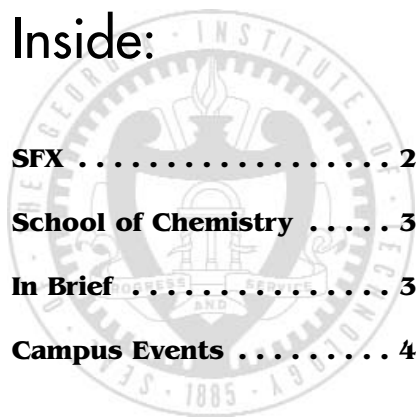


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THE WHISTLE

FACULTY/STAFF NEWSPAPER

VOLUME 29, NUMBER 2 • JANUARY 12, 2004

THE GEORGIA INSTITUTE OF TECHNOLOGY

Tech named to 13-member national nanotechnology network

Research News

Georgia Tech will be among 13 universities participating in the new National Nanotechnology Infrastructure Network (NNIN) announced last month by the National Science Foundation (NSF). The network will be an integrated, nationwide system of user facilities to support research and education in nanometer-scale science, engineering and technology.

Led by Cornell University, the NNIN will enable students and researchers from any school in the United States — as well as scientists from corporate and government laboratories — to have open access to resources they need for studying molecular and higher length-scale materials and processes, and for applying them in a variety of structures, devices and systems.

The \$70 million network is expected to begin operation this month for a five-year period.

Georgia Tech will share its nanotechnology fabrication resources — including a new system capable of creating nanometer-scale features — and lead the network's education and outreach efforts, said James Meindl,

director of Tech's Microelectronics Research Center.

"Georgia Tech is installing a \$4 million electron-beam nanolithography system that will allow etching of patterns at the nano-scale," he said. "This tool, funded by the Georgia Research Alliance, will facilitate advances in bio-electronics, nanotechnology and advanced microelectronics. The system, one of only a few such university-based instruments in the nation, will be available to NNIN partner institutions along with skilled personnel to operate it."

The new network was approved by the National Science Board, the 24-member policy advisory body of the National Science Foundation.

"The network will be an investment of at least \$70 million under NSF's nanoscale science and engineering priority area," said Lawrence Goldberg, NSF senior engineering advisor. "NNIN expands significantly beyond the current capabilities of the five-university National Nanofabrication Users Network (NNUN) that is concluding its ten-year life span this year."

"By assembling and offering to share our specialized resources with any and all qualified users, we have

created the world's largest, most comprehensive and accessible nanotechnology laboratory," said Sandip Tiwari, the Cornell electrical engineering professor who will serve as director of the NNIN.

The network will not only provide users across the nation with access to leading-edge tools and instruments, but also will contribute to the development of a new workforce skilled in nanotechnology and the latest laboratory techniques.

The NNIN comes on the heels of an October announcement by Governor Sonny Perdue of plans for a new Nanotechnology Research Center at Georgia Tech. The facility would be funded by \$36 million from a private donor and up to \$45 million in state money.

To be located at the corner of Atlantic Avenue and Ferst Drive, the center would be the most advanced nanotechnology research facility in the southeast, the first of its kind in the region, and among the most sophisticated in the country. The 160,000-square-foot facility will include 30,000 square feet of clean room space.

NNIN member universities:

- Cornell University
- Georgia Institute of Technology
- Harvard University
- Howard University
- North Carolina State University
- Pennsylvania State University
- Stanford University
- University of California at Santa Barbara
- University of Michigan
- University of Minnesota
- University of New Mexico
- University of Texas at Austin
- University of Washington

For more information...
Microelectronics Research Center
www.mirc.gatech.edu
National Science Foundation
www.nsf.gov

Campus police stress need for community effort to reduce crime

Michael Hagearty
 Institute Communications
 and Public Affairs

The Georgia Tech Police Department is urging members of the community to take an active role in helping to reduce the campus crime rate.

Speaking in the Student Center Theater as part of a seminar on crime prevention, Sergeant Randy Barrone also provided crime statistics for the past year, coupled with suggestions on limiting the risk of becoming a victim.

Each member of the campus community bears some responsibility for creating a safe environment, he said. Whether it involves reporting a bro-

ken light or suspicious activity, Barrone encouraged people to give a voice to their concerns.

"We need the community just as much as they need us," he said. "Campus safety is not just our job; it's the job of all of us who go to school and work at Georgia Tech."

In 2003, larceny was by far the most common crime, with 920 reported incidents. Of those, nearly one-half involved automobile break-ins. Oftentimes, a minimal level of caution can make the difference.

"Things such as leaving your car unlocked or having items in plain view invite criminal activity," Barrone said. "If they can't see anything,

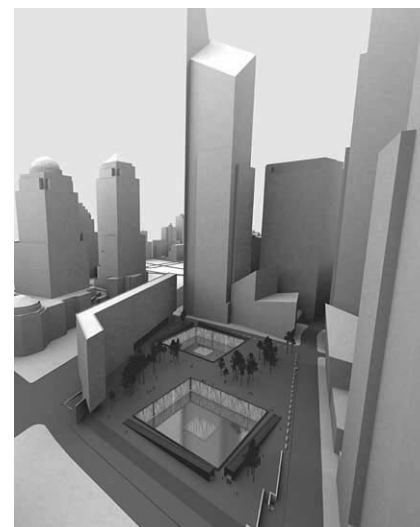
Crime continued, page 3

Alumnus designs 9/11 memorial

Sean Selman
 Institute Communications
 and Public Affairs

Following an eight-month international competition that drew more than 5,000 entries, a memorial designed by a Georgia Tech alumnus has been chosen as the future World Trade Center Memorial in New York City.

Michael Arad, who graduated from Georgia Tech in 1999 with a master's degree in architecture, designed "Reflecting Absence: A Memorial at the World Trade Center Site" for the international World Trade Center Site Memorial Competition, launched in April 2003.



Arad's signature image is a southeast aerial view, where two reflecting pools occupy the footprints of the Twin Towers.

Design continued, page 2

“QUOTE— UNQUOTE”

“The visit (by Indian Prime Minister Atal Behari Vajpayee) has been a small step forward in the long march forward in Indo-China rapprochement.”
—John Garver, a professor in the School of International Affairs, on improving diplomatic relations between India and China, Asia’s two fastest-growing economies.
(United Press International)

“The force has to be reconfigured. We’ve got enough people, but they are not in the right configuration.”
—John Endicott, professor in the School of International Affairs, urging swifter military change: creating smaller, more deployable units that rely more on technology.
(Atlanta Journal-Constitution)

New library service links resources for faster, better research

Michael Hagearty
Institute Communications
and Public Affairs

A new service offered through the Library and Information Center Web site can dramatically cut research time, while substantially increasing the ease of access to thousands of academic journals.

Through a robust linking system known as SFX, users can now jump from abstract citations to the full text of an article. Or, if not available electronically, the system offers alternatives — as users click on a link in a citation, they are able to view a list of other access options, such as Library availability in the print format, document request or interlibrary loan.

“We were getting a lot of faculty input, wanting an easier way to access our electronic resources,” said Lori Critz, a reference librarian closely tied with the implementation of SFX at Tech. “This service saves everybody a lot of time and energy.”

Though designed to be intuitive, Critz said many early users requested a primer on the system, and has organized several information sessions during January to address those questions. All sessions will be in the Library’s Homer Rice Center, 1st Floor West.

**Jan. 16 — 1:30 p.m.
Jan. 23 — 10 a.m.
Jan. 26 — 1 p.m.
Jan. 29 — 10 a.m.**

For more information, e-mail lori.critz@library.gatech.edu.

The Library subscribes to dozens of indexing services, categorized by academic discipline, that connect users with thousands of electronic journals. What Library officials discovered, however, was that access to a large percentage of those journals

required some advanced knowledge of the Library’s holdings. The average user, for example, might not know that one journal may be available through multiple databases.

SFX simplifies the process, integrating all of the Library’s resources and creating greater independence on the user’s part. “Now, all options are presented,” Critz said.

In essence, SFX is an overlay to the Library’s current database system. As users generate search returns and select citations, they will find a button connecting them with a menu showing how to access its full text.

The service is open to all users at Georgia Tech.

For more information...

Library and Information Services
www.library.gatech.edu
SFX
www.sfxit.com

Design, cont’d from page 1

His original design includes reflecting pools and waterfalls in the footprints where the former World Trade Center towers once stood. It is to be built in memory of all the victims of terrorist attacks on Sept. 11, 2001, and of the six people killed in the 1993 World Trade Center bombing.

“I am very honored and overwhelmed by the news that the jury has selected my design,” Arad said. “I hope that I will be able to honor the memory of all those who perished and create a place where we may all grieve and find meaning.”

“I will do my best to rise to the enormity of the task at hand. It is with great humility that I regard the challenges that lie ahead — and it is with great hope that I will find the strength and ability to meet them,” he said.

“I think he did a magnificent job of sorting through all the many different interests and requirements needed for this memorial at this site,” said Doug Allen, associate dean of the College of Architecture.

“His is a quiet scheme. It’s a complex and difficult thing to pull off at this particular location, and for someone at his age to design this scheme and have it chosen is truly significant,” Allen said.

Vartan Gregorian, chair of the jury that selected Arad’s design for the memorial, said, “In its powerful yet simple articulation of the footprints of the Twin Towers, ‘Reflecting Absence’ has made the gaping voids left by the Towers’ destruction the primary symbol of loss. While these voids still remain empty and inconsolable, the surrounding plaza’s design has evolved to include teeming groves of trees, traditional affirmations of life and rebirth.”

“The result is a memorial that

expresses both the incalculable loss of life and its regeneration,” Gregorian said. “Not only does this memorial creatively address its mandate to preserve the footprints, recognize individual victims and provide access to bedrock, but it also wonderfully reconnects this site to the fabric of its urban community.”

Officials said that Arad’s winning design has evolved significantly since the eight finalists were placed on exhibit at New York City’s Winter Garden this past November, and more changes are expected before it is to be built. A new design will be unveiled in a public presentation to take place this week, officials said.

For more information...

World Trade Center Site Memorial Competition
www.wtcsitememorial.org



THE WHISTLE

Editor: Michael Hagearty

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Calendar submissions e-mailed to michael.hagearty@icpa.gatech.edu, or faxed to Michael at 404-894-7214 must be sent at least 10 days prior to desired publication date. Classified submissions are on a first come, first serve basis. For more information, call 404-894-8324.

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Georgia Tech is a unit of the University System of Georgia.

Nominations requested for annual faculty honors

The Faculty Honors Committee is soliciting nominations of faculty members as candidates for recognition in seven categories.

Given the highly competitive nature of the awards, Linda Thomas-Mobley, chair of the committee, said that her committee welcomes re-nominations, which require submission of previously submitted and updated materials. Other noteworthy items include the addition of one

new award category, established to recognize faculty involved in undergraduate research efforts.

The awards, which will be presented at the Faculty/Staff Honors Luncheon on April 7, 2004, include:

- Distinguished Professor Award;
- W. Roane Beard Outstanding Teacher Award and the W. Howard Ector Outstanding Teacher Award;
- Outstanding Service Award;
- Outstanding Continuing Education Award;

- Outstanding Interdisciplinary Activities Award;
- Outstanding Innovative Use of Education Technology Award; and
- Outstanding Undergraduate Research Mentor.

Nominations must be received by January 31, 2004. More information about the categories and nomination requirements may be found at www.facultyhonors.gatech.edu.

School of Chemistry and Biochemistry growing reputation reflected in enrollment, faculty

Sean Selman
Institute Communications
and Public Affairs

With 218 graduate students in Georgia Tech's School of Chemistry and Biochemistry this fall, the School now ranks as the 12th largest program in the country, officials said.

The School also boasts 55 new, first-year students this fall — its largest incoming class to date — and seven new research groups, each of which is producing more research opportunities for faculty and students than ever before at Tech.

"The recruitment within the school has been strong and successful for the past several years," said Professor Thom Orlando, chair of the School of Chemistry and Biochemistry. "Several peer schools have experienced a slight increase in enrollment, too, but not at the level that our school has."

Orlando said that the large increase in graduate and undergraduate enrollment indicates several things, including the

rising prominence of the School in academic research circles. Much of that is due to the acquisition of new, senior faculty members in recent years.

"The students are the most important reason that the school exists, and their presence and efforts are what fuels the science we are all engaged in," Orlando said. "The number of students and their quality and success are the real indicators of our School's strength."

What's more is that the overall research portfolio of the School also is the strongest it has ever been, he said. It has grown into a broad and interdisciplinary research enterprise, with strengths in essentially all areas of chemistry plus fast growing disciplines such as materials science, nanoscience, biophysics and chemical physics.

When they tour programs and meet faculty, prospective students have several new people to meet at the School of Chemistry and Biochemistry for 2003 and 2004. Among the new researchers and programs

this year are:

- Professor Uwe Bunz, who studies synthetic organic chemistry plus polymer and materials science;
- Professor Joseph Perry, a physical chemist studying three-dimensional, nanoengineered assemblies plus organic electronic and photonic materials;
- Professor Seth Marder, an organic chemist who studies the synthesis of novel organic materials for use in non-linear optics and photonics;
- Professor Jean-Luc Bredas, who studies the theory of carrier transport in polymer systems, plus the theoretical description of organic photonic and electronic devices;
- Professor Bridgette Barry, a biophysicist studying mechanisms of photosynthesis and charge transfer in biological media; and
- Assistant Professor Facundo Fernandez, an analytical chemist who examines and develops novel mass spectrometry methods that can be used for disease detection.

IN BRIEF:

Report: China exporting more technology

China has moved higher into the hierarchy of technology exporters, according to a new study from Georgia Tech.

"China's upsurge was a surprise in 1999 and it's still coming on strong," says Alan Porter, co-director of Tech's Technology Policy and Assessment Center (TPAC), which conducts the study, "Indicators of Technology-Based Competitiveness."

The study's goal is to see how different countries rate on high-tech exports, with an emphasis on industrializing economies.

During the last decade, China has more than doubled its score on "technological standing" (TS) — a key benchmark that gauges current global competitiveness.

In 1993, China's closest neighbors on the TS scale were Spain and South Africa, whereas this year's study shows China slightly above the Netherlands and just below Singapore. "That's quite a change in company," Porter says, adding that if China continues at this pace, it might surpass both Germany and the United Kingdom in the near future.

Although Japan is the No. 2 exporter of technology products and well ahead of other countries, it has lost ground in recent years.

The full study can be found on the TPAC Web site: tpac.gatech.edu.

Nunn cited for dedication to reducing the nuclear threat

Former U.S. Sen. Sam Nunn was honored last month by the Heinz Family Foundation for his nuclear nonproliferation efforts and success in reducing the number of nuclear weapons in the world.

Nunn and Indiana Sen. Richard Lugar were presented the Chairman's Medal of the Heinz Awards, established in 1993 to honor the late Pennsylvania Sen. John Heinz.

Nunn and Lugar were recognized for creating the Nunn-Lugar Cooperative Threat Reduction Program that accelerated the destruction of post-Cold War Soviet weapons, including more than 6,000 nuclear warheads, 500 ballistic missiles and 400 submarine-launched missiles.

Nunn retired from the Senate in 1996 and founded the Nuclear Threat Initiative, an Atlanta-based organization working to reduce the global threat from nuclear, biological and chemical weapons.

Prominent computing society taps four faculty members

The College of Computing faculty boasts four of the 30 new fellows selected last month by the Association for Computing Machinery (ACM).

"This year's ACM fellows join the ranks of outstanding ACM members who have contributed to the computing community through distinguished service and significant achievements in information technology," said John White, the CEO of ACM. "By their contributions, they

have advanced the computing discipline and its increasingly critical role in society in countless ways."

The four join a distinguished list of colleagues to whom ACM and its members look for guidance and leadership in the field of information technology. The four new fellows are:

• Mostafa Ammar, Regents' professor, for contributions to the design of systems and protocols for scalable network services.

- Richard DeMillo, dean, for contributions to the engineering of reliable and secure software.
- Mary Jean Harrold, professor, for contributions in software engineering.
- Ramesh Jain, professor, for contributions to computer vision and multimedia information systems.

ACM will formally recognize the new fellows at its annual awards banquet later this spring.

Crime, cont'd from page 1

they're going to move on."

When it comes to recovery of property, Barrone said the public can help by keeping records of an item's serial number. Those numbers, when fed into a statewide crime database, will be flagged should someone try to resell stolen goods.

"A lot of the people we see are repeat offenders," Barrone said. "We're really talking about a small population of criminals."

The Police Department, with 47 sworn officers, 23 security personnel and two new K-9 officers, is the largest force in Tech's history, yet Barrone repeated that community feedback was an essential component to effective policing.

"We want to know what your expectations of us are," he said.

For more information...

Police Department
www.police.gatech.edu

Campus crime: by year

	2001	2002	2003
Aggravated assault	0	0	2
Arson	0	0	0
Burglary	125	167	76
Larceny	896	884	919
Motor Vehicle Theft	54	79	90
Robbery	12	12	10

C A M P U S E V E N T S

Arts & Culture

Jan. 16

The First Center for the Arts welcomes the Aquila Theatre Company for an 8 p.m. performance of Shakespeare's "Othello." Faculty and staff receive a 10 percent discount. For tickets, call 894-9600.

Jan. 17

The First Center for the Arts welcomes the Umbilical Brothers for an 8 p.m. performance. Faculty and staff receive a 10 percent discount. For tickets, call 894-9600.

Brown Bags/Conferences/Lectures

Jan. 21

The School of History, Technology and Society and the Center for the Study of Women, Science and Technology present "DNA (Structure) at 50: Gender, Race, Class, Culture and Scientific Discipline in the Predicament of Rosalind Franklin," at 4 p.m. in the Student Success Center.

Jan. 22

The School of Mechanical Engineering's Woodruff Colloquium welcomes Moe Khaleel, laboratory fellow at the Pacific Northwest National Laboratory, on "Hydrogen: The Fuel of the Future. Where We Are Now and Where Are We Going?" at 3 p.m. in the MaRC Auditorium. For more information, call 894-5687.

Jan. 22

Faculty and research administrators are invited to meet National Institutes of Health (NIH) officials while participating in a forum on the NIH Commons and other NIH eRA initiatives, from 1-4:30 p.m. in GCATT. More information is available at commons.era.nih.gov/commons. To reserve a seat, call 894-6944 or e-mail nadia.zitman@osp.gatech.edu.

Faculty/Staff Development

Jan. 20

The Counseling Center hosts a one-hour workshop on "Building Positive Relationships," at 11 a.m. in room 238, Student Services Building. The program will be repeated on Jan. 27. For more information, call 894-2575 or refer to www.counseling.gatech.edu/workshops.htm.

Jan. 20

The Office of Organizational Development sponsors the one-day course "Get Organized NOW" in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu/mastcal.asp.

Jan. 30

The Office of Environmental Health and Safety hosts a six-hour course in defensive driving techniques. There is no cost to attend. Call 385-0263 for information.

Miscellaneous

Ongoing

Techmasters: Tech's chapter of Toastmasters International for faculty, staff, alumni and spouses, meets every Thursday at 7:30 a.m. in room 102 of the Microelectronics Research Center. For more information, e-mail terry.nolan@business.gatech.edu or refer to www.techmasters.gatech.edu.

Jan. 14

Registration for Student Center Options classes ends. Late registration, with additional charge, is available Jan. 15-16. For more information, visit www.fun.gatech.edu.

Jan. 18

Georgia Tech will hold its annual King Celebration Ecumenical Service with keynote speaker Stewart Burns, a civil rights historian and author of *Daybreak of Freedom*, the history of the Montgomery bus boycott, at 10 a.m. in the Student Center Ballroom. Free and open to the public. For more information, call 894-3070.

Jan. 19

Campus closed for the Martin Luther King Jr. Holiday.

Faculty and staff should send calendar items for events to editor@icpa.gatech.edu as soon as they become available.

C L A S S I F I E D S

APPLIANCES

Kenmore refrigerator, exc. condition, white, \$150. Call 678-232-3475 or e-mail david.gifford@gtri.gatech.edu.

AUTOMOBILES

1992 Ford Festiva. Teal, 2-door, 4-speed manual, aluminum rims. Cute, little, very dependable. Original Mazda 323 engine, Original owner. \$800 OBO. Call Keiko, 770-723-9242.

1993 Infiniti J30, gold, 139K miles with recently rebuilt transmission. Campus car. Call 385-4139 or e-mail koroper@bellsouth.net.

1994 Nissan Altima. Six-cylinder, 4-door, sunroof, CD/FM/AM. High mileage, needs some transmission work, \$3,500 OBO. E-mail annette.gaddis@gtri.gatech.edu. No calls please.

1995 Pontiac Grand AM GT. Teal, 91K miles, 3.1L V6, rebuilt auto transmission, CC, a/c, 16" alloys, K&N, Flowmaster dual exhaust, AM/FM cassette w/6CD changer and subs, \$4,400 nego. E-mail mgilbert@ibb.gatech.edu.

1996 Nissan Quest Minivan. Silver, automatic, 6-cylinder, 7-passenger, AM/FM cassette, a/c, 165K, one owner, excellent condition, new tires, dealer maintained. Ready to drive. \$3,000 OBO. Call Anita at 404-696-3342.

1998 Honda Civic LX sedan. White w/ gray interior, 85,600 miles, 4-cylinder, 5-speed, pw, ps, power locks, AM/FM/CD, great car for student, \$7,450 OBO. Call 678-521-9471 or e-mail april.goode@crc.gatech.edu.

FURNITURE

Full-sized mattress and box springs, excellent condition, \$150 for both. Call Carol Heller, 894-1939.

REAL ESTATE/ROOMMATES

3BR/2.5BA brick ranch in Cobb on 2.5 acres near Harrison HS. Double master BRs, very spacious and private, full basement, fireplace, W/D, available mid-January. \$1,375/mo. Call 770-565-3242.

Midtown, 1BR with full bath, private entrance in a townhome. Close to GT and to Piedmont Park. \$500/month. Call 404-876-5715 or e-mail mi208@yahoo.com.

1BR/BA + sunroom condo in Cross Creek. Convenient to GT. Golf, tennis, pool, gated community. W/D, a/c, fireplace, new carpet, ready to move in now. Eager to sell at \$112K OBO. Call Ron at 678-482-1374.

2BR/2BA condo at GA 400 and Northridge, 1,300+ sq. ft., \$925/month + utilities. E-mail melissa@stricklandportraiture.com for more details and photos.

Picturesque 2BR/1BA house for rent in Fairburn, 20 minutes south of Atlanta just off I-85. Large kitchen. Porch w/swing, rear brick patio. Shaded by big oaks. \$700/month. E-mail angela.shartar@oars.gatech.edu.

Vinings: spacious & light-filled 3BR/2BA condominium, ideally located. Open floorplan with high ceilings, great closets, outdoor space and short commute to Tech. \$239,900. Call 385-2818.

Visiting international exchange student seeks to rent a room from Feb. 9 to June 18 with convenient walking or MARTA access to GT. Call 894-4219 or e-mail marc.levenston@me.gatech.edu.

Professional male seeks professional roommate for 2BR/1BA house in East Point. Convenient to MARTA, \$400/mo. incl. utilities. Call Brian Burnett, 678-637-6887.

Brand new 2-story townhome for sale in a beautiful, gated new community in Mableton, 15 minutes from campus. 3BR/3BA with fireplace, spacious yard. Asking \$125,000. Call Debbie, 678-290-1273.

3BR/2BA townhouse in Decatur. One year old, all appliances, W/D, available now. \$950/month + \$500 deposit. Call 404-286-0944.

SPORTS/FITNESS/RECREATION

Two boat trailer tires and rims. Loadstar 4.80x8 tire. Almost new. \$15 for the pair. E-mail scott.murray@oit.gatech.edu.

MISCELLANEOUS

Hitachi 43-inch HDTV w/stand, excellent condition, \$1,200. Call 678-232-3475 or e-mail david.gifford@gtri.gatech.edu.

Free ping pong table to the first person to pick it up. Good shape. All accessories. Call Doug, 770-528-7048.

130-gallon tank/stand, \$500 OBO, 3 ball pythons, \$25/ea. OBO. Bearded dragon lizard w/20-gallon tank/light, \$150 OBO. Dumerils boa w/50-gallon tank/light, \$300 OBO. Gray banded king snake w/20-gallon tank/light, \$100 OBO. Call 678-462-7132.

Wanted: tickets to the Georgia Tech/Wake Forest basketball game on 2/22. Call 894-8324.

Ads will run for a maximum of three weeks in the order in which they are received. The Whistle reserves the right to edit ads longer than 30 words.