TEXT OF 2012 INSTITUTE ADDRESS

August 28, 2012
Room 152, Clough Commons

Good morning - I want to welcome all of you and in particular those watching in the overflow room or participating by webcast. The slides you just saw highlighted some of the accomplishments of Georgia Tech faculty, staff and students. While we all know some of the amazing things going on at Georgia Tech, when you see them all rolled up together, it is very impressive and gives a big picture perspective of all the many things we're doing at Georgia Tech to change the world.

Strategic Plan Progress

Three years ago this month we formally initiated the development of our 25-year Strategic Plan, Designing the Future (http://www.gatech.edu/vision), and a year later we formally launched it. Thanks to the continuing engagement of the Georgia Tech community, we have made solid progress, and I continue to be impressed by the collaborative and innovative spirit of those working on the various aspects of the plan.

The true sign of success in this type of endeavor is when it ceases to remain as a stand-alone document and becomes woven into the fabric of the Institute. These leaders of the 15 active projects (http://gatech.edu/vision/projects) are joining with hundreds of other faculty, staff, and students who are engaged in bringing our Strategic Plan to life. I would like to ask the Strategic Plan - Project Team co-chairs, as well as the project liaisons, to stand. Please join me in thanking them for all of their efforts on our behalf.

Today we will touch on the progress we have made towards the goals outlined in our strategic plan as we also examine the many challenges and opportunities that lie ahead for Georgia Tech.

Facilities

In case you were wondering, this is Georgia Tech, not Google. While the recent filming of a movie has presented challenges for some and inconvenienced others, it has provided a unique insight into how movies are produced. In selecting the Georgia Tech campus for the film, the producers were seeking a forward looking space and one that was representative of the best in technology.

About 200 members of the Tech community have participated in the filming, either as extras or by working on the set. Some people have asked how this all worked – we submitted a bid designed to cover any expenses incurred as a result of the filming. We agreed to allow the filming on campus for the intangible benefits we anticipate once the movie is released.

I want to thank those of you who have been inconvenienced, either by having to park in other places, select new routes through campus, or find new places to study, meet, or get coffee. I also want to thank all of the groups who have been involved in helping with the project, including the Georgia Tech Police Department, Capital Planning and Space Management, Parking and Transportation, Dining Services, the Clough Commons staff and all of the building managers and staff in the other facilities that were used.

Clough Commons

Speaking of facilities, since we opened the Clough Commons (http://clough.gatech.edu/) a year ago, there have been more than 2.1 million visits, or approximately 12,000 student visits every day.

You can find students here just about any time of day or night. In fact, last spring, I invited Kevin Riley, editor of the Atlanta Journal Constitution, to join me in a ride-along with the Georgia Tech police. We stopped in Clough Commons, and he asked me what all the students were doing there at 1 in the morning. I told him “This is Georgia Tech. They’re studying and working on group projects.”

It is a wonderful facility and while Google may have brought in the spaceship, we already had a whale and a cabin in the lobby, built by Georgia Tech students. They were projects from Professor Hugh Crawford’s classes that have become immensely popular because of the innovative teaching approach he employs.
Facilities through Partnerships

It is easy to see why the film company would want to film at Georgia Tech. Our campus is impressive, and through a combination of private philanthropy, state and industry support, we are continuing our efforts to improve the facilities we need to accomplish the ambitious goals we have established.

There are a number of projects in various stages of completion. In less than a week, we take occupancy of the new McCamish Pavilion, and just across the street is the new Ken Byers Tennis Complex that will open in January. The new Carbon Neutral Energy Solutions, or CNES building on North Avenues, is designed to set a new standard for sustainable design for buildings of its type. And, just this past week, we learned that it has been selected for the ENR Southeast Best Project Award and also the Georgia Chapter of the ASLA 2012 Design Award.

Further west on 10th street, construction is underway on the new Engineered Biosystems Building, made possible by a commitment from the state as well as institutional and private funds. This facility will allow us to continue to improve and expand our world-class activities in the biotechnology arena and will provide an economic boost to the state by fueling Georgia’s growing biotechnology industry. We have spread the Civil and Environmental Engineering faculty and staff all over campus as we undertake a $10.5 million renovation of the Mason building. And finally, we continue the phased renovation of our residence halls and student dining facilities.

Changing the Way We Educate Students

Georgia Tech is fortunate to have some of the brightest and best-qualified students in the world and these new facilities are helping us to change the way we educate them, in order to help create an environment where they can succeed and reach their full potential. We are also working to enrich the student experience by taking advantage of new technologies and instructional methods, while at the same time creating opportunities for increased student/faculty interaction.

The universities of the future will embrace both new technologies and teaching methodologies that expand their reach, and maximize their effectiveness, through teaching methods such as Vertically Integrated Projects that foster innovative thinking and entrepreneurial behavior.

We have some outstanding faculty at Georgia Tech, who are leading the way in the development of new educational methodologies and who are changing the way we educate our students. Today it is my pleasure to share with you that two nominees from Georgia Tech have been selected as recipients of the Regents’ Teaching Excellence and Scholarship Awards for FY2013.

Steve Potter, associate professor in the Laboratory for NeuroEngineering (http://www.bme.gatech.edu/faculty_staff/faculty_record.php?id=39), won in the faculty category for research universities. Professor Potter engages his students through a personal, discussion oriented approach, by exposing them to actual research and challenging them to create YouTube videos to explain research to lay people. I believe that Professor Potter is here with us today.

The second award goes to the Wallace H. Coulter Department of Biomedical Engineering (http://www.bme.gatech.edu/index.php) won the program/department category across the entire University System for their implementation of an innovative problem-driven learning approach. Please join me in congratulating them.

Since we launched the Center for 21st Century Universities, or C21U (http://c21u.gatech.edu/) under the direction of Rich DeMillo last fall, faculty from Management, Public Policy, and Industrial & Systems Engineering have come together to focus on the role of disruptive technologies, serving as a living laboratory for testing new transformational educational ideas and approaches.

We recently announced an agreement with Coursera (http://provost.gatech.edu/hg/item/140591), a spinout of Stanford to put web-based courses online and create new educational opportunities outside of the traditional classroom and to provide opportunities for lifelong learning for people throughout the world.

Tech is a founding member of a small group of highly respected university partners in this bold experiment in the future of education. I just learned yesterday that we have over 57,000 students signed up for our first five courses. We also have a number of other similar projects and partnerships in the works that will ensure that Georgia Tech is on the cutting edge in this area.

Several of the Strategic Plan project teams are focusing on changing the way we teach and creating new and exciting approaches - things like the Burdell Design Center, the X-Degree, Technology and the Law, and others. Details on these and other initiatives can be found on the Strategic Plan web site.

It’s important to note that while we remain committed to our primary focus of residential undergraduate and graduate instruction, these activities will give us the opportunity to investigate new methods and approaches and thereby improve our traditional courses.

Our Outstanding Students

This fall, our student body includes 21,566 undergraduate and graduate students from 127 countries, including the largest, best qualified, and most diverse freshman class in Georgia Tech history. The fall 2012 freshman class includes students from 65 countries. The average SAT of the new freshman class is 1394. The average GPA is 3.89 and over half of them have a 4.0 in high school. Many of these students have been involved in leadership activities before they step foot on campus.
This year as we celebrate the 60th anniversary of the admission of women at Georgia Tech, our freshman class includes 35 percent women, the largest number of women ever enrolled. Our undergraduate student body includes 33 percent women.

In addition, in the past three years, we have increased the number of underrepresented minorities in the freshman class by 48 percent.

This success is the direct result of the efforts of many of you who over the years have been working to attract an exceptionally well qualified and diverse student body. I would like to take this opportunity to thank all of you who have worked continuously through the years to help us attract the best and the brightest students. Your efforts are continuing to help us attract a wonderful group of students and we owe much of our reputation for excellence to your efforts.

**Commitment to Diversity**

Georgia Tech’s commitment to diversity has never been stronger. We see it in increased diversity in our student body, and our staff, and are making great inroads in faculty diversity.

As you can see from the slides our statistics in various categories represent dramatic increases. (Freshman class since Fall 2008: Black/African American students up 24 percent. Hispanic students up 76 percent. Students of two or more races up 118 percent. Overall student body since Fall 2008: Black/African American students up 7 percent; Hispanic students up 33 percent; overall increase in underrepresented minorities 19 percent) Again, this is a reflection of the commitment of our staff. While the statistics are dramatic, our original numbers were low. We still have much work to do. We aspire to be an institution that pursues excellence and embraces and leverages diversity in all of its forms to benefit the entire Tech community.

**Co-op**

2012 is also the 100th anniversary of our cooperative education program [http://coop.gatech.edu](http://coop.gatech.edu), the largest voluntary co-op program in the nation.

More than 50,000 students have participated in Tech’s co-op program over the past century, and there are 5,000 current undergraduate and graduate co-op students. It’s a great way to earn money for college while gaining valuable work experience that gives you a competitive edge upon graduation.

I invite you to join us back here in Clough Commons on September 18 for the co-op celebration.

Co-op is just one of the many ways our students can maximize their time at Tech. It is our hope that many of them will participate in a number of the more than 450 student organizations, or be included with the more than 40 percent of Tech’s students who participate in an international experience. It is the combination of these experiences that helps to prepare them as leaders in an ever-changing world.

**Safety**

As we begin the academic year, I want to take a few minutes to focus on safety. The safety and security of Georgia Tech students, faculty, and staff is our top priority. Some of the current initiatives are listed here.

- 5,000 signed up for Jacket Guardian [www.guardian.gatech.edu](http://www.guardian.gatech.edu)
- 1,000 security cameras, 400 emergency phones
- Adding 5 sworn officers, force of 82
- Enhanced and high-visibility point patrols with Atlanta and GT Police
- 10 - 12 officers patrolling 24/7
- Launch of SkyCop
- “See Something? Say Something” Campaign
- Automated Stingerette system from laptops or smartphones
- New co-branded squad car
- HAWK Pedestrian crossing on North Avenue

In addition we are partnering with the Atlanta Police Department, Midtown Blue and the Georgia State Patrol.

If you have not done so already, I encourage you to sign up for our new Jacket Guardian system, a security service provided free of charge to the campus community. An app for it was developed by our students.

**Clery Act Safety Alerts**

Because Georgia Tech is an open, urban campus with many students living in surrounding Atlanta neighborhoods, we take a very proactive stance when it comes to notifying the campus community about safety concerns. For that reason, we are probably in the news more than some other universities.
For example, the Clery Act requires universities to alert the campus community of incidents occurring on campus. Georgia Tech expands that to include areas adjacent to the campus, something that other universities sometimes choose not to do. In the past two years, more than 70 percent of the incidents triggering Clery Act alerts from Georgia Tech have occurred off campus. While this policy increases the number of alerts issued and prompts some negative attention, our first priority is to ensure that our students, faculty and staff are both aware and vigilant.

We are having some success - compared to the first seven months of 2008, property crimes the current year are down 48 percent and violent crimes are down 62 percent. This is good news, but one crime is one too many and we continue to work to improve the safety of our campus and surrounding areas and to encourage our students to practice safe behaviors, and to help us by reporting any suspicious activities.

**Student Led Campus Safety Campaign**

Our students are on board, and in fact have taken the initiative to create a student-led campus safety campaign. They have a number of special activities planned for September 4-7. Details can be found on their Facebook page, Georgia Tech Campus Safety Campaign.

**Power of Partnerships**

The power of partnerships is a theme that permeates all of Georgia Tech. A sterling example is Campaign Georgia Tech [http://development.gatech.edu/campaign-georgia-tech](http://development.gatech.edu/campaign-georgia-tech). To date, we have raised $1.16 billion towards our goal of $1.5 billion by December 2015.

While state support is declining, the outstanding support we receive from our alums and other partners is helping us realize the goals outlined in our Strategic Plan, and to achieve a level of excellence that would otherwise not be possible. The Campaign is helping us to add endowed chairs and professorships and to continue to attract and retain the very best faculty.

Prior to the start of the campaign, one in eight faculty held endowed chairs, today it is one in six and our goal is for one in four tenure-track faculty to hold an endowed chair or professorship.

In addition, the Campaign will allow us to provide scholarships for undergraduate students and fellowships for graduate students, in order to ensure that any qualified student can come to Georgia Tech. And finally, it will allow us to continue to construct and renovate existing facilities to ensure that we can continue to offer the best possible education to our students.

This past summer Ernest “Ernie” Scheller Jr. made a transformational gift of $50 million to our college of business [http://www.gatech.edu/newsroom/release.html?nid=134491](http://www.gatech.edu/newsroom/release.html?nid=134491). Mr. Scheller, a 1952 Industrial Management graduate, credits Georgia Tech for teaching him to be disciplined and focused in everything he did.

The Scheller College of Business is already ranked No. 8 among public business schools in the nation, and as we celebrate the 100th year of our management program, the Scheller’s generosity will help position our program for continued global prominence.

We are achieving powerful results through our partnerships with business, industry, government and non-profit organizations. In June Children’s Healthcare of Atlanta and Georgia Tech announced a $20 million joint investment to strengthen our commitment to developing technological solutions in the area of pediatric health care.

Research will include everything from nanomedicine and regenerative medicine to innovative approaches for healthcare delivery.

**Research**

We believe that much of the research that will change our world will be interdisciplinary in nature, and as a result we continue to work to create the world’s foremost innovation ecosystem that incorporates the pursuit of “game changing” research and then helps to move the results toward commercialization. This will provide our industry partners with a competitive advantage, while benefiting the economy and society.

Our industry partners often tell us that while they value the research taking place here at Georgia Tech, they especially value the access to our students. They tell us that they bring a new level of creativity and innovative thinking, and are job-ready upon graduation.

As we embark on our exciting new research strategy, one that will move us beyond the traditional models in place at other research universities, we have identified 12 areas that will make it easier for the outside world to better understand all that we do.

**Focus Areas**

- Big Data
- Bioengineering and Bioscience
- Electronics and Nanotechnology
- Manufacturing, Trade, and Logistics
- Materials
National Security
Paper Science and Technology
People and Technology
Public Service, Leadership, and Policy
Robotics
Sustainable Infrastructure Systems

This list is not all-inclusive. We anticipate that it will evolve as our research evolves and grows. By aligning and integrating our resources, and presenting our research activities in a market-focused way, it will become even easier for Georgia Tech to work with and clearly communicate our areas of expertise to our partners in government and industry.

Let me share a couple of examples of how our innovation ecosystem is coming together. In energy, we will soon open our new Carbon Neutral Energy Solutions Building.

We are partnering with GE Energy on the Smart Grid Challenge, a student competition and Tim Lieuwen, in his role as director of the Strategic Energy Institute, will lead our overall energy strategy.

In addition, Georgia Tech is a major player in advanced manufacturing. The Manufacturing Research Center under the leadership of Ben Wang is targeting specific industry needs in manufacturing, by forming collaboratories — pilot plants or prototype shops between industry, government and academia.

MaRC has recently morphed into The Manufacturing Institute, which represents a broader mission that includes accelerated technology translation, for innovative manufactured products. It is really all about competitiveness and impact.

**Innovation Ecosystem**

Georgia Tech is partnering with the City of Atlanta, the State, and business and industry to create a culture of innovation. We are actively and aggressively working to commercialize the technologies developed at Tech, moving the discoveries made in our laboratories to the marketplace, and building the companies that will create jobs, drive our economy, and stimulate economic growth.

We’re also committed to helping individuals in the community transform their intellectual property to drive innovation.

Technology Square has become a high-energy hub, bringing together needed resources, expertise, and opportunities for collaboration that creates an exciting environment for innovation to flourish. Georgia Tech continues to work closely with the Georgia Department of Economic Development headquartered in Tech Square to attract new business and industry. The Centergy Building is home to about 40 companies, and several other organizations are exploring having a presence there.

You can almost feel the energy that is building.

In May Panasonic announced that it would locate its new automotive innovation center in Centergy One in Tech Square, creating an incubator for next generation automotive infotainment technologies. A driving factor was their interest in enhancing partnerships with Georgia Tech, including [EI2](http://innovate.gatech.edu/).

Tech Square is home to [Flashpoint](http://flashpoint.gatech.edu), Tech’s latest startup accelerator, and of course [ATDC](http://www.atdc.org), the nation’s first university based technology incubator, and widely regarded as one of the best.

Just last month [Georgia Tech was selected for a leadership role in the National Science Foundation’s I-Corps program](http://www.gatech.edu/newsroom/release.html?nid=140891). Tech, along with Stanford and the University of Michigan, is a founding network node for I-Corps, which aims to develop scientific and engineering discoveries into useful technologies, products and processes.

**Student Innovation**

I think the real excitement comes from what our students are doing. They are an active part of research and discovery, and today over 70 percent of innovation disclosures at Tech name one or more students among the inventors.

We are continuing to offer programs to foster innovation and entrepreneurship, such as the [Georgia Tech Integrated Program for Startups](http://www.industry.gatech.edu/innovators-entrepreneurs/integrated-programs-startups), [TI:GER](http://tiger.gatech.edu), an award winning program and partnership between Georgia Tech and Emory University School of Law; and the [InVenture Prize](https://inventureprize.gatech.edu), an annual competition that inspires undergraduate students to create inventions for cash prizes. Many of those innovations from the past three years have already been commercialized.

**Athletics**
Athletics continues to be an important part of the campus culture. More than 400 student athletes represent Georgia Tech in 17 intercollegiate varsity sports. In addition, several represented the U.S. and other countries in the summer Olympics in London.

We had a number of things to celebrate last year. Our baseball team won its eighth ACC championship, and the golf team won its fourth. Our football team earned a post-season bowl bid for the 15th season. Our women's basketball team made the sweet 16 for the first time in Tech history. And, members of the men's and women's track team members broke several school records.

Georgia Tech is a challenging institution and because of that, we're especially proud of their academic accomplishments. The average team GPA is over 3.0 for all of the women's teams, and for half of the men's teams. This past May, all five of the seniors on the women's basketball team graduated in four years. Athletes participate in the Total Person Program to help them develop professionally, socially and intellectually.

Challenges

While there are many positive things happening, higher education is in the public spotlight because of Integrity and accountability issues, anticipated challenges in federal support, dwindling state support due to economic pressures and rising student debt.

Still, today, a Georgia Tech education remains one of the best investments a student can make. This was reaffirmed in the past spring when BusinessWeek ranked Georgia Tech number two in the nation and first in the state of Georgia, in annualized return on investment. According to the survey results compiled by Payscale.com, Georgia Tech was one of 24 schools whose graduates earned in excess of $1 million over 30 years.

Because of the generosity of Georgia Tech alumni and other supporters, we are able to provide numerous academic, athletic, and needs-based scholarships, including the G. Wayne Clough Georgia Tech Promise. Students can help defray costs through programs like cooperative education, mentioned earlier. We remain sensitive to costs for students, and continue to develop ways to help make a Georgia Tech education within reach of every qualified student.

Earlier this month I distributed a letter to the campus community in an effort to keep you informed about the latest developments regarding Tech's financial outlook. The Office of Planning and Budget in the Governor's office required the University System of Georgia, as well as most state agencies, to submit a three percent reduction plan for FY13 and FY14.

For Georgia Tech, this amounts to a reduction of just under $6 million for each of the two years. Through careful planning, we are hopeful that we can handle these reductions centrally for this budget year. It will, however, significantly limit our ability to undertake new initiatives.

As in the past, our priority is to preserve the value of the degrees that we award to students, and we will continue to support our core areas that have made Tech what it is today. In the past three years, we have created 53 new faculty positions – these are not replacement positions, but new ones. We will continue our commitment to reduce class size when possible and to provide needed resources for learning throughout the Institute.

Institutional Effectiveness

One of the five goals outlined in the Strategic Plan is to relentlessly pursue institutional effectiveness. Achieving this goal can facilitate all aspects of our business, including both the academic and research operations.

For maximum effectiveness, it requires a common definition and conversation, including the right people, the right tools and the right culture. To begin implementation, Steve Swant's team identified a cross-institutional working group tasked with soliciting input from the campus, drafting a plan, socializing the concepts and principles and proposing actions going forward.

Critical success factors are the desire for change, the freedom and discipline to be a learning organization, and managing expectations of the community. There will be some things that we implement that are an immediate win. There are others that require improvements. The goal is to create the best platform for academic and research success.

Close

Thank you for your engagement today. In closing, I want to share something from our Strategic Plan created by the Georgia Tech community.

“All universities educate students, and most pursue research. Great universities also lead. They lead in education, by defining what and how we teach, and by understanding how our students learn.

They lead in research — by creating new knowledge and by identifying new solutions, new directions for research, and new ways in which we perceive the world around us. In short, great universities help shape the world, rather than being shaped by it.”

Thanks to your diligence and hard work, we are well on our way. Thank you again for all you are doing to help position this great Institute as a world leader.