Education to Employment: Designing a System that Works

Workforce 2020 Forum
April 2014

G. P. “Bud” Peterson
President, Georgia Institute of Technology
Expectations are changing

Today, institutions of higher learning are expected to:

• Ensure that graduates are both employable and prepared to adapt and lead in an ever-changing world that many times requires an interdisciplinary approach to developing solutions to grand challenges.

• Move our research from the bench top to the consumer quickly in order to enhance economic development of the region and nation to create more jobs.

• Be global in nature and to provide lifelong learning opportunities for the world using advanced technology.
<table>
<thead>
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<th>Characteristics of 3 Generations</th>
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<tbody>
<tr>
<td><strong>Boomer</strong></td>
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<tr>
<td>1945-1964</td>
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<tr>
<td>Face-to-Face or Call</td>
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<tr>
<td>Loyal to Job</td>
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<tr>
<td>Print Me a Copy</td>
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<tr>
<td>Respect My Title</td>
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<tr>
<td>Focus on Process</td>
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<tr>
<td>Work Comes First</td>
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<td><strong>GenX</strong></td>
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<td>1964-1980</td>
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<td>Email or IM</td>
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<td>Work to Live</td>
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<td>Send Me the Data</td>
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<tr>
<td>Respect My Ideas</td>
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<tr>
<td>Focus on Results</td>
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<tr>
<td>Family Comes First</td>
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<tr>
<td><strong>Millennial</strong></td>
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<tr>
<td>1980-2000</td>
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<tr>
<td>Just Text Me</td>
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<td>Play then Work</td>
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<tr>
<td>I'll Google It Myself</td>
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<tr>
<td>Respect My Skills</td>
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<tr>
<td>Focus on Involvement</td>
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<td>Friends Come First</td>
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<td>Confident</td>
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<tr>
<td>Open to Change</td>
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<td>Connected</td>
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Thomas Friedman – in 2004

Facebook didn’t exist
Twitter was still a sound
The cloud was in the sky
4-G was a parking place
Linked in was a prison
Applications were what you sent to college
Big Data was a rap star, and
Skype was a typo
Georgia Tech Students

- Enrollment – 21,500 Students
  - From 115 countries

- Fall 2013 Freshman Class
  - Largest, best-qualified, and most diverse in Georgia Tech history

- Fall 2014 Class
  - 23% international applicants
  - Admitted students from 87 countries
  - 25,500 applications for 2,400 slots
  - Admission decision is based on a combination of academic excellence and leadership activities
The Georgia Tech Campus
3.6 million combined visits to the Library and Clough Commons complex last year.

27,000 instructional hours during 2013.

2.5 million visits in 2013.

Clough Commons — Resources for Collaborative Learning and Engagement
Strategic Plan Goals

**Goal 1:** Be Among the Most Highly Respected Technology-Focused Learning Institutions in the World

**Goal 2:** Sustain and Enhance Excellence in Scholarship and Research

**Goal 3:** Ensure That Innovation, Entrepreneurship, and Public Service are Fundamental Characteristics of Our Graduates

**Goal 4:** Expand Our Global Footprint and Influence to Ensure That We Are Graduating Good Global Citizens

**Goal 5:** Relentlessly Pursue Institutional Effectiveness
Tech’s Global Focus

- Global Strategy:
  - Expanding the world’s footprint at Tech
  - Expanding and leveraging Georgia Tech’s impact around the globe
  - Embracing and supporting globally engaged students
Georgia Tech has grown into one of the most globalized universities in the world, with partnerships in more than 30 countries a campus in **France** and global centers in

- **China**
- **Singapore**
- **Costa Rica**
- **Panama**
A Global Education

46%* of Georgia Tech undergraduates study abroad before graduation

*Based on 2013 Degrees Conferred by College
Focus on Student Innovation

Capstone Design

Invention Studio

Smart Grid Challenge

Convergence Challenge
6th InVenture Prize March 26

- 560 students in 2014
- 2,400 in 6 years
- 1st Prize:
  - $20,000
  - free licensing
  - Flashpoint
Revitalizing Undergraduate Education

• Center for 21st Century Universities
• Embracing new technology and teaching methods
• “flipped” classroom
• Service learning
• X Degree
• Vertically integrated projects that foster innovative thinking and entrepreneurial behavior
• Preparing leaders by integrating liberal arts into our curriculum, student life, research, community outreach
• Significant contribution to the multi-disciplinary research and innovation that considers the human and social dimension of problem solving
• Bridges humanities, social sciences, and technical disciplines
Student Leadership Opportunities

400 student organizations

ORGT engaged more than 5,000 students

Grand Challenges
Living Learning Community

Leading Edge
Celebrating A Decade of Innovation at Tech Square
VentureLab ranked No 2 globally by University Business Incubator.

ATDC has launched 140 companies, attracting $2 billion in investment.

ATDC is one of 12 business incubators changing the world named by Forbes.

Innovation Centers in Tech Square:
- AT&T Foundry
- Panasonic
- ThyssenKrupp

Innovation Ecosystem
12 Core Research Areas

- Big Data
- Bioengineering and Bioscience
- Electronics and Nanotechnology
- Energy and Sustainable Infrastructure
- Manufacturing, Trade, and Logistics
- Materials
- National Security
- Paper Science and Technology
- People and Technology
- Public Service, Leadership, and Policy
- Robotics
- Systems
Online Master’s in Computer Science

• OMS-CS

• 380 students this semester

• 2,360 applicants

• Partnership with Udacity and AT&T

• Part of Tech’s commitment to exploring new approaches to education and incorporating innovative technologies into the curriculum
Providing Lifelong Learning Opportunities Using Advanced Technology

• In 2013, Georgia Tech Professional Education programs served
  – 26,000 individuals
  – from 111 countries
  – representing 3,000 companies
  – Ranging in age from 13 to 91

• Leadership in Massive Open Online Courses
Discussion