Envisioning the New Century: On the Road to World Class Status

Revising the Georgia Tech Strategic Plan

Tech President G. Wayne Clough
Georgia Tech Advisory Board
October 29, 1999
Campus Planning History

- GT Strategic Plan - 1995
- Facilities Assessment and Space Study - 1996
- Capital Plan and Financing Proposal - 1996
- Campus Master Plan - 1997
Capital and Campus Plan Revision Timeline

- Revised Capital Plan and Financing Proposal - 2000
- Revised Campus Master Plan - North Avenue Research Area and Fifth Street developments - 2000
- Campus Master Plan Implementation - continuing.
Strategic Plan Revision Timeline

• Unit Strategic Plans - submitted Fall 1999
• GT Strategic Plan Update - 2000
• GT Strategic Plan Implementation Report - 2000/01
The Mission

• Mandate for engineering and architecture; special responsibilities in computing, sciences, and technology in humanities and social sciences

• Prepare extraordinary students for leadership in a technological world

• Conduct leading-edge research

• Inculcate expectation of excellence, respect for others and ethical behavior
The 1995 Agenda

• Enrich educational opportunities
• Improve student life
• Maintain and enhance research
• Take full advantage of technology
• Improve the infrastructure
• Identify optimum size and composition
• Expand collaboration, linkages, economic development efforts
Changing Context for Educating Students

- New admissions procedure
- Student Computer Initiative, revised curriculum with web enhancements
- Internet degree delivery
- GT Regional Engineering Program
- More students living on campus
- Shift in preference for majors
Changing Context for High-Tech Development

• Yamacraw Mission
• Metro Atlanta Chamber Industries of the Mind
• Growth of the Georgia Research Alliance
• Participant in Midtown renaissance, creation of high tech corridor
Changing Context for Resources

• Endowment has grown
• Capital Campaign is ahead of projections
• Faculty salaries for the USG have surpassed the national average
• Yamacraw Mission funds 45 faculty positions in CS and CmpE
Changing Context for External Perceptions

- Rankings improvement on fast-track
- Increased involvement in state and national technology policy activities
- Recognized leader in diversity
- Perceptions still lag reality (strategic communications task force)
Revising the Plan Because...

- The context within which we operate has changed.
- Our most pressing problems have changed.
- Our level of outside recognition has increased.
- Opportunities have never been greater.
- It is time to recalibrate goals and strategy to complete with the best.
The Context of the Coming Century

Technology is ubiquitous
Computing is pervasive

Internet + Information = Unlimited Access
Talent is dominant

Population is diverse
Interdisciplinary is in
Entrepreneurs have
the edge
The economy is globally networked

Research drives innovation
Opportunities and Challenges
Opportunities and Challenges

Developing a Global Scope

• Sam Nunn School of International Affairs
• European Union Center
• Study abroad programs
• International beachheads
Georgia Tech’s Global Reach
Opportunities and Challenges

Achieving World-Class Status

- Raise our Blue Chip profile
- Develop policy expertise and influence
- Build partnerships
- Achieve excellence across the board
Opportunities and Challenges

Exploring the New Economy

• DuPree Center for Entrepreneurship
• iXL Center for Electronic Commerce
• Executive master’s degrees in the management of technology and international logistics
• Executive Education Center
Continuing Education and Executive Conference Center
Leading the Way in Computing
Visualizing a Virtual Future

- Enrollments double in CS and CmpE; constructing the ATC Building
- Virtual Reality: Graphic Visualization and Utilization Lab
- GT Information Security Center
- Internet education delivery
Layered Manufacturing

- Beginning of Lecture
- Possible Manufacturing Methods for Metal Bolts
- Organize Processes
- Problems due to grain structure
- Mass Production
- Cost
- Flexibility
- Tolerance

Georgia Institute of Technology
ME 6222: Manufacturing Processes and Systems
Prof. J.S. Colton

Layered Object

Mirror

Laser

Vat

Platform
Opportunities and Challenges

Into the Community and Across the State

- Yamacraw Mission
- Metro Atlanta Chamber
- Industries of the Mind
- GCATT
- ATDC
Midtown Renaissance

- GT Facilities
- Start-ups
- Expanding giants
- Atlantic Steel
- 17th St Bridge

Numerous loft/condo/apartment projects
Changing the Neighborhood

Techwood Homes

Centennial Place
Opportunities and Challenges

Becoming Interdisciplinary From the Ground Up

• Biotechnology partnership with Emory
  – Joint department, joint degrees
  – Joint biotechnology research park

• Sustainable technology
  – Center for Sustainable Technology
  – Skidaway Institute of Oceanography

• BEM Complex
BEM Complex
Opportunities and Challenges

Pushing the Leading Edge

- Engineering of living tissues and biotechnology
- Next generation semiconductors
- Internet 2; Southern Crossroads
- Nanostructures and miniaturization
- Advanced manufacturing
- Quality growth
John Williams Center for Quality Growth and Regional Development

SMARTRAQ
Transportation Research Institute
Opportunities and Challenges

Smart Growth for Georgia Tech
Enrollment
70% over past 30 years; graduate: 167%
Academic Faculty
60% over the past 30 years
Student Housing on Campus

129% over the past 30 years
Continuing Education
285% over the past 20 years*

*CEUs did not yet exist in 1969.
Sponsored Research
3300% over the past 30 years
Adding It All Together
30-Year Growth by Percentage

(3300% in 30 years)
Managing and Focusing Growth

• Hold the line on enrollment
• Improve student:faculty ratio
• Catch up infrastructure with growth
• Target research growth
• Meet market needs for continuing education
Committed to Diversity

Percentage of New Students Entering Fall Term

1979 1989 1999

0% 5% 10% 15% 20% 25% 30% 35%

Women

Minorities
Opportunities and Challenges

Improving Basic Infrastructure

• Classrooms
• Educational technology
• Athletics
• Campus community
From the slide rule to the computer slide
Undergraduate Learning Center
SAC and the Aquatic Center
“Unless an organization sees that its task is to lead change, that organization -- whether a business, a university or a hospital -- will not survive.”

Peter F. Drucker

*Management Challenges for the 21st Century*