ITU Academia Partnership Opening Ceremony

Rafael L. Bras
Provost and Executive Vice President for Academic Affairs

December 2, 2019

Drivers of Change in Higher Education

EARLY EDUCATION
- Digital natives
- Participatory experience
- From K-12 to K-10

DEMOGRAPHICS
- Shrinking number of 18 year-olds
- Decreasing % of high school graduates choosing college
- Increasing diversity

IRON TRIANGLE
- Affordability
- Accessibility
- Excellence

CHANGING NATURE OF WORK
- Globalization
- Automation & Productivity
- Churn of Knowledge
- Gig economy

NEEDS AND CAPABILITIES
- Agility
- T-Shaped thinkers
- 21st century skills

SCIENCE & TECHNOLOGY OF EDUCATION
- Cognitive Science & Behavioral Economics
- Ascendance of Data
- Convergence of technologies

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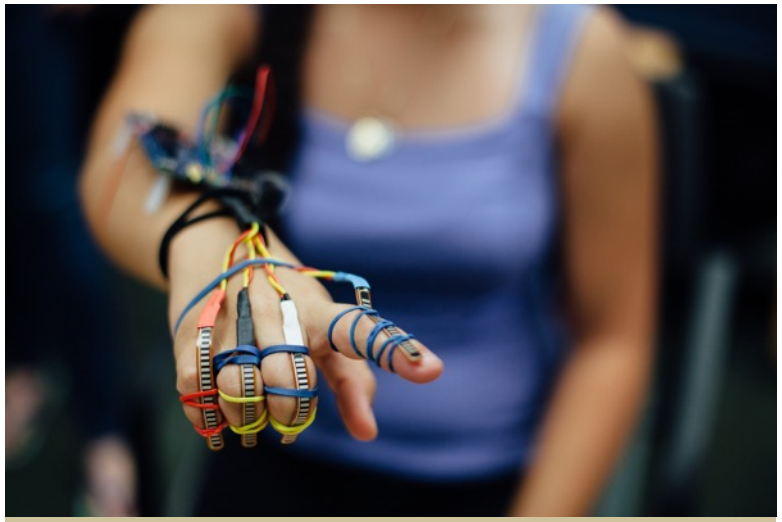
Commission on Creating the Next in Education

Deliberate Innovation, Lifetime Education

The Georgia Tech Commitment to a Lifetime Education



The Initiatives

Whole Person Education
New Products and Services
Advising for a New Era
AI and Personalization
Distributed Worldwide Presence

The Culture – Becoming Deliberately Innovative

Read the report: gatech.edu/ed-innovation

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Technology-Enabled Educational Innovation
Online Master of Science (OMS) Programs

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Computer Science (2014)
Analytics (2017)
Cybersecurity (2019)

12,300+

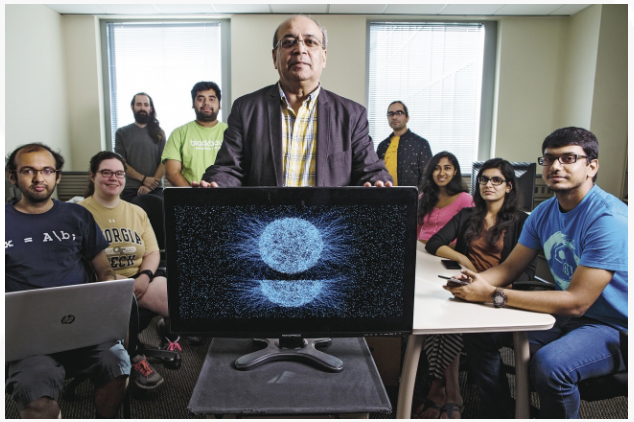
Fall 2019 OMS Programs Enrollment

Affordable.
Accessible.
Applicable.

Technology-Enabled Educational Innovation

Artificial Intelligence, Automation, and Personalization

"Jill Watson" and Friends



19% student engagement

90% response accuracy

"Jill" is considered ***conscientious, optimistic, and resilient***, three traits associated with effective teaching.

CS1301:

Fully-automated evaluation

Immediate feedback
Integrated assessment
Unlimited scale

Authentic to ***real world, trial-and-error scenarios*** computer science professionals face.

Looking Ahead:

Near-term and Longer-term

- AI-enabled personalized learning system
- AI-based, adaptive learning platforms for mastery learning
- Human-centered AI

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Technology-Enabled Educational Innovation

Blockcerts

- Blockchain-powered academic credentials via mobile application — decentralized, secure, and verified.
- Launched summer 2018.
- Conducted Testing in spring 2019
  - Undergraduate and graduate students, faculty, staff from the admissions and registrar's offices
  - Local employers
- Issued 255 certs across 16 events.
- Presented at InteractUSG and OLC Accelerate about our work in blockchain credentials.

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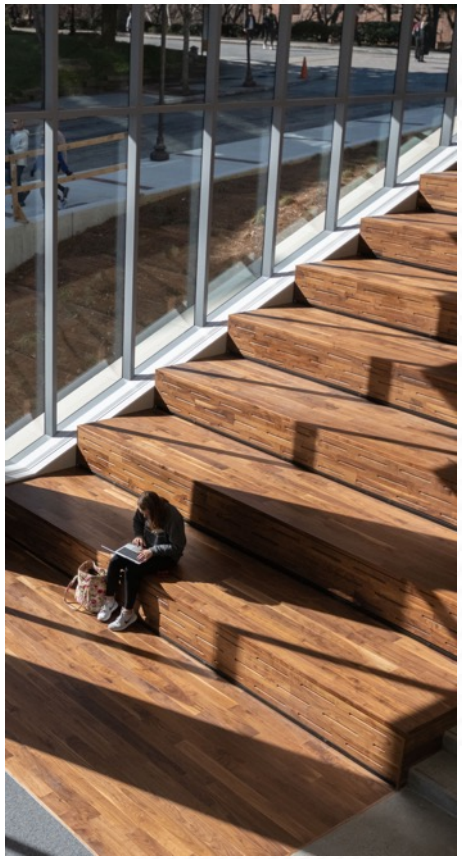
Deliberate Innovation

Reimagining the 21st Century Library with "Library Next"



Data visualization, high-performance computing, multimedia studies, collaboration, and iterative design.

librarynext.gatech.edu/

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