



Catalyze

IPaT facilitates interdisciplinary research between faculty, students, and industry partners.



Support

IPaT provides the continuity and capacity to empower longterm research programs and partnerships.

Partners

ACT, Inc. | Adobe Research | Aflac Cancer Center | American Board of Family Medicine | Association of County Commissioners of Georgia | AT&T | Atlanta Braves | Atlanta Regional Commission (ARC) | BMW | Childrens Healthcare of Atlanta | City of Atlanta | Cincinnati Children's Hospital | Cisco | Coaches Studio | CopTrax | Cox Communications | Department of Pediatric Emory Medical School | DowDupont | Emory University Hospital | Flextronics | Ford | Georgia Centers of Innovation | Georgia Chamber of Commerce | Georgia Department of Community Affairs | Georgia Municipal Association | Georgia Power | German American Chamber of Commerce | Google | GPB | Gyroscope | Historic Rural Churches of Georgia (HRCGA) | Honeywell | IBM | Intel | Keysight | KPMG | Lateshift | NIST/Global Cities Team Challenge | Marcus Autism Center | Metro Atlanta Chamber | MetroLab Network | Microsoft | Moxie | Samsung | Sharecare | Sibley Heart Center | Steelcase | Technology Association of Georgia | Tekwave Solutions | Texas Instruments | Thyssenkrupp | UCB | Verizon Connect | Verizon Wireless

Message from the Director

"Impact" is the most critical aspect of the work we do at Georgia Tech, and it can be the most difficult to nail down. The impact of our research and educational activities ranges from transforming the GT campus into a living laboratory for mobile and computing research to reimagining the experience of cancer care for the youngest Georgians. The breadth and depth of IPaT's research initiatives and partnerships stretch across the world, expanding the reach of our thought leadership, and improving the lives of Georgia communities. This powerful cycle of innovation and impact infuses our work each day and is informed by our core values: collaboration, transparency, innovation, and diversity.

Thank you for reading and learning more about our work. We are committed to fulfilling Georgia Tech's Strategic Plan addressing society's biggest challenges through multi-disciplinary approaches. We invite you to partner with us and join us in shaping the future of human-centered technologies, systems and environments to promote fulfilling, healthy and productive lives in Georgia and across the globe.



Elizabeth D. Mynatt

Elizabeth D. Mynatt
Executive Director, Institute for People and Technology

Educate

IPaT cultivates human-centered engineers, scientists, designers, business leaders, and policymakers.



Advocate

IPaT champions socio-technical change to address society's biggest challenges.



IPaT Network



Academic Faculty
IPaT draws together the leadership and diverse expertise of academic researchers from all six Georgia Tech colleges.

Research Faculty
Our work is powered by expert research faculty and staff who translate research insights into real world impact.

Students
Hundreds of bright, talented Georgia Tech students are at the heart of IPaT research projects and partnerships.

Georgia Tech Campus
IPaT cultivates partnerships and resources to transform our campus into a living laboratory.

Industry and Non-Profit Partners
IPaT engages with a thriving coalition of strategic national and international partners from industry and non-profit organizations.

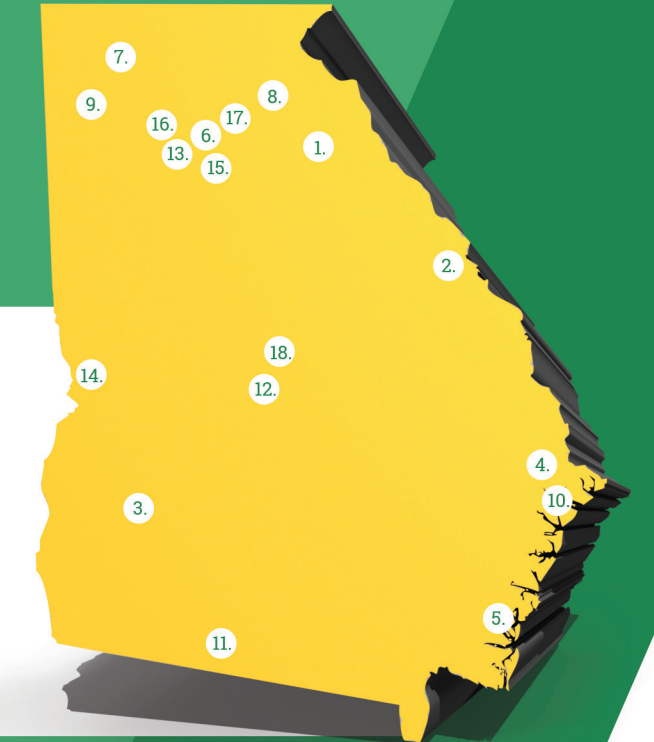
IMPACT REPORT

The IPaT Impact in Georgia

Georgia Tech's Institute for People and Technology (IPaT) creates a networked research ecosystem of Georgia Tech faculty and government, industry, and non-profit partners to amplify thought leadership and revolutionary research to create positive economic and societal impact in Lifelong Health and Well-Being, Smart Cities and Inclusive Innovation, Human Technology Frontier, and Platforms and Services for Socio-Technical Systems. Our impact reaches not only large, metropolitan cities, but also small towns across the state of Georgia.

Impacted Counties and Cities

- | | |
|----------------------------|--------------------------------------|
| 1. Athens-Clarke County | 11. City of Valdosta |
| 2. Augusta-Richmond County | 12. City of Warner Robins |
| 3. City of Albany | 13. Chatham County |
| 4. City of Atlanta | 14. Columbus Consolidated Government |
| 5. City of Brunswick | 15. DeKalb County |
| 6. City of Chamblee | 16. Fulton County |
| 7. City of Dalton | 17. Gwinnett County |
| 8. City of Gainesville | 18. Macon-Bibb County |
| 9. City of Rome | |
| 10. City of Savannah | |





Lifelong Health and Well-Being

From pediatrics to aging, IPaT's continuum of healthcare research is working to promote and enable vibrant and lifelong physical and mental health.

“
Supporting patients throughout a difficult journey can go a long way to improving cancer care into survivorship.”

Beth Mynatt
IPaT Director

Smart Cities and Inclusive Innovation

Through interdisciplinary expertise in technology and policy, IPaT is developing innovative approaches to shaping resilient and sustainable communities.

“
We aim to create more models for smart development that can be shared and applied across the state and beyond.”

Debra Lam
IPaT Managing Director

Shaping the Human Technology Frontier

We're exploring new ideas in user experiences that foster creativity, stimulate learning and enable productive collaboration. Through this initiative, we're researching and developing novel wearable computing, assistive, augmented reality, and gaming technologies.

“
We're not finishing each other's projects but working together to find one idea.”

Lane Conville-Canney
Office of the Arts
Special Events Coord.

Platforms and Services for Socio-Technical Systems

IPaT is merging physical and digital worlds with complex data analytic and communications capabilities. We are building new network infrastructure technologies with the goal of creating connected systems that support communities.

“
We're not just in Atlanta. We care about and are embedded in communities all around the state.”

Russ Clark
IPaT Managing Director

Technology to Support Successful Aging With Disability

TechSage is a federally-funded national center which supports older adults with disabilities through universally-designed technology solutions. The center empowers these individuals to maintain independence and health, engage safely in basic activities at home and in the community, and fully participate in society. Researchers are developing a wide range of solutions including a health and wellness application to assist those aging with multiple sclerosis, and an application that measures short distance gait speed.

Designing Cancer Care for Kids, By Kids

Children receiving chemotherapy go through a complex process involving multiple steps, providers, and rooms. With funding from the Imlay Foundation, Children's Healthcare of Atlanta and Georgia Tech Research Institute are working with pediatric cancer patients to develop a "passport" app, which collects time motion data about their visit and provides qualitative information expressing how they felt in each location. This will help clinicians understand how to improve the patient experience of care.

Improving Quality of Life with Smart Technology



The Georgia Smart Communities Challenge is a first-of-its-kind opportunity for communities of any size in Georgia to receive funding and support that enables them to envision, explore, and plan for their smart future. A panel of judges selected the cities of Albany and Chamblee and the counties of Chatham and Gwinnett for the inaugural challenge.

Shaping Atlanta's Smart Future

In September 2017, the City of Atlanta launched the North Avenue Smart Corridor. As the City's official research partner on the \$3 million project, Georgia Tech is helping to develop, deploy, and evaluate smart technologies aimed at improving public safety and environmental health, and traffic congestion. Michael Hunter, assistant professor in the School of Civil and Environmental Engineering, is leveraging integrated smart technology and data to better understand traffic operations along the corridor. IPaT also hosted a speaker series at Atlanta City Hall where researchers received feedback on their smart city work.

The Future of Job Training



Georgia Tech researchers are improving healthcare worker safety and changing the future of work environments. The Interactive Media Technology Center, in collaboration with Emory University's Serious Communicable Disease Unit are developing an augmented reality training experience for nurses caring for Ebola patients. Similarly, as part of a grant from the Centers for Disease Control and Prevention, SimTigrate Design Lab and its university and healthcare partners are exploring how the design of physical environments can reduce the likelihood of errors while treating highly infectious patients. And, Georgia Tech is creating an AR/VR testing platform to enable first responders to compare the efficacy of new methods and devices.

When Art and Technology Collide

As part of the Creative Collisions project, funded by the GVU/IPaT Research and Engagement Grant program, IPaT co-hosted a series of workshops with the Georgia Tech Office of the Arts to share art, engineering, and technology processes and brainstorm how artists can incorporate technology into their work. The project culminated with *Characters*, a dance work featuring a wearable tech costume created by Georgia Tech research scientists and a Los Angeles-based performing artist. Creative Collisions also participated in the ACCELERATE Festival, a celebration of creative exploration and research.

A Visual Exploration of Physician Networks



Healthcare delivery processes consist of complex activity sequences, producing wide variations in cost, quality, and outcome. Georgia Tech researchers designed and developed an interactive visual analytic process exploration and discovery tool that reverse-engineers healthcare flow processes from clinical data of pediatric emergency department patients.

Recovering More Quickly After Storms

Each year, hurricane season brings the potential for severe flooding, especially in coastal communities. Georgia Tech scientists and engineers, the City of Savannah, and Chatham County are developing a network of online sea level sensors with the goal of providing real-time information about the location and magnitude of coastal flooding events. The team plans to use sea level data to aid in emergency response planning and risk assessment for communities along Georgia's coast.



The NIH Georgia Diabetes Translation Research Center works to address the diabetes epidemic.
IPaT is advancing state and national health policy for Medicaid-insured children.
A personalized application for breast cancer patients removes barriers to care and provides support.
Aware Home researchers are creating a notification system for older adults to prevent injury and home damage.
With Children's Healthcare of Atlanta, we are designing tools to improve patient-clinician discussions of radiology reports.



"Digital Twins" generates a parallel version of a city system through Internet of Things and virtual reality.
MARTA and Georgia Tech are studying how gas prices and the economy impact ridership decline.
Georgia Tech and Atlanta Housing Police Department beat zones to improve 911 response times and zone staffing.
An algorithm analyzes Atlanta Police Department beat zones to improve 911 response times and zone staffing.
At a 2018 congressional briefing, IPaT's Beth Mynatt discussed the need for intelligent infrastructure.



Augmented reality gives fans an in-depth look at SunTrust Park and the Atlanta Braves.
This robot dresses people who need physical assistance (Seed Grant recipient).
Convergence Innovation Competition alumni are using AR to help hospitals prevent surgical infection.
National wireless research center improves the lives of disabled people with disabilities.
Passive haptic learning gloves use "muscle memory" to aid in traumatic injury rehabilitation.



Software-defined networking simplifies the use of network resources for global scientists.
In partnership with the CDC, our app helps evaluate educational campaigns in Zika-affected countries.
An algorithm detects correlations between crime incidents in Atlanta Police report data.
In partnership with the VA, this digital health platform helps provide next-generation healthcare to veterans.
Our wireless platform helps first responders to receive real-time emergency information for people with disabilities.