

Annual Report 2020

# Institute for Cyber Law, Policy, and Security





## Dear friends,

2020 was a year in which celebrating accomplishments felt amiss in the face of all of the heartbreak and challenges that we as individuals, as communities, as nations, and as humanity faced.

The challenges were and still are overwhelming: a global pandemic and the deaths of far too many, systemic racism, increasing economic uncertainty for millions, and more.

In confronting these challenges, we increasingly see the necessity and power of technology, whether it be video platforms for work and socializing or the promising contributions of the use of artificial intelligence in medical applications. But so too are we seeing the disruptive effects of technology, from the proliferation of disinformation to the embedding of racism in the data and technologies that shape our world. We also see an increasing pattern of technology used as a Band-Aid, giving political leaders and sometimes us as individuals excuses not to grapple with the need for systemic change.

If anything, 2020 has reaffirmed the need for the University of Pittsburgh Institute for Cyber Law, Policy, and Security (Pitt Cyber) and like-minded institutions to struggle with how best to develop and critique the development and use of technologies safely, securely, and equitably.

We hope that you will be as excited as we are about the success we continue to have in innovating and collaborating across disciplines here at Pitt, with policymakers, and with industry. We continue to work in the critical space at the intersection of technology, law, and policy and know that this type of transdisciplinary work will be even more vital in the years to come.

Pitt Cyber will continue to take on work wherever we can be most impactful. We hope you will take a moment to read about all we have accomplished in our fourth year and look forward to your continued ideas, insight, and partnership.

Sincerely,



Beth Schwanke  
Executive Director

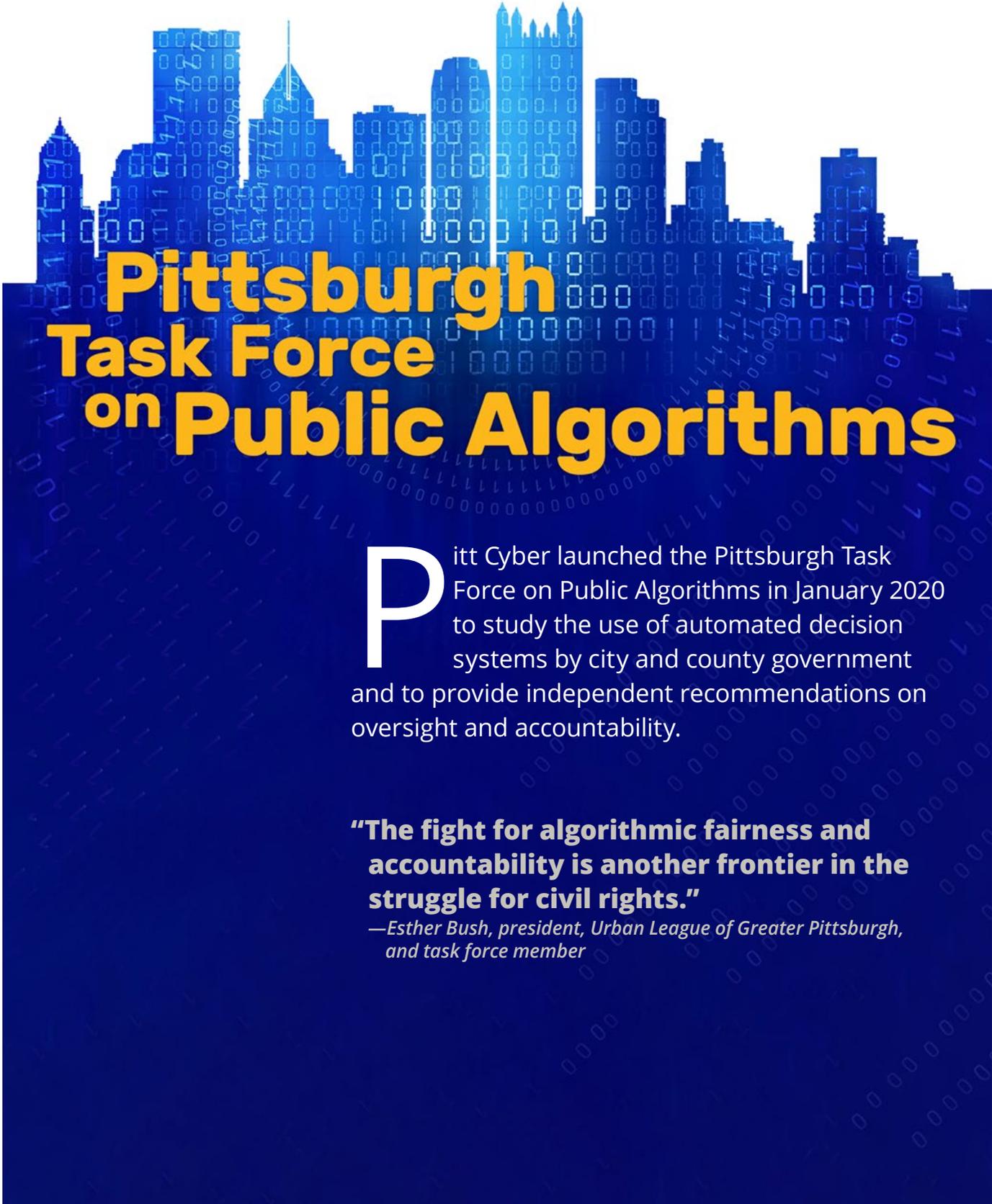


## Mission

Pitt Cyber provides a unique transdisciplinary environment for tackling cyber challenges. We bring the breadth of one of the world's leading public research universities to bear on the critical questions of networks, data, and algorithms, with a focus on the ever-changing gaps among law, policy, and technology. Our team of legal, policy, and technical researchers engages with policymakers and industry to create both actionable proposals to address current demands and fundamental insights to understand the future when it arrives.



## Our Work and Impact



# Pittsburgh Task Force on Public Algorithms

**P**itt Cyber launched the Pittsburgh Task Force on Public Algorithms in January 2020 to study the use of automated decision systems by city and county government and to provide independent recommendations on oversight and accountability.

**“The fight for algorithmic fairness and accountability is another frontier in the struggle for civil rights.”**

*—Esther Bush, president, Urban League of Greater Pittsburgh, and task force member*



**D**ecisions shaping our lives are increasingly delegated to algorithms. These data-trained models are determining everything from credit worthiness to hiring to search results. Local governments are turning to algorithms to support decision-making functions that used to be performed by people. Here in Allegheny County, for example, algorithmic tools can help child welfare hotline workers decide when to investigate claims and assist judges in determining bail conditions.

These decision-making support systems offer the promise of predictive big data to support humans, who by their nature are less efficient, less informed, and sometimes biased. The problem is that algorithms are not neutral: They

reflect existing biases in our data and society and in the very questions asked of them. Algorithms can reinforce and even accelerate existing discrimination patterns.

Local agencies across the United States are deploying algorithms with little oversight and sometimes little awareness of the potential consequences. The Pittsburgh Task Force on Public Algorithms seeks to establish best practices and practical guidance for those municipalities seeking to ensure algorithmic accountability and equity for all

residents. The task force will release its recommendations in 2021 and is consulting across the region to ensure its work reflects community needs and values.

Pitt Cyber is grateful for the generous support of The Heinz Endowments and the Hillman Foundation for this work.



## Pittsburgh Task Force on Public Algorithms

**Rachel Berger,**  
chief, Child Advocacy Center, UPMC Children's Hospital of Pittsburgh; director, child abuse research, Safar Center for Resuscitation Research, University of Pittsburgh; and professor of pediatrics, School of Medicine, University of Pittsburgh

**Esther Bush,**  
president, Urban League of Greater Pittsburgh

**Alexandra Chouldechova,**  
assistant professor of statistics and public policy, Heinz College of Information Systems and Public Policy, Carnegie Mellon University

**David Danks,**  
department head and L.L. Thurstone Professor of Philosophy and Psychology, Department of Philosophy, Dietrich College of Humanities and Social Sciences, Carnegie Mellon University

**Christopher Deluzio,**  
policy director, Pitt Cyber

**Ángel Díaz,**  
counsel, Brennan Center for Justice

**Courtney Ehrlichman,**  
CEO, The Ehrlichman Group

**Rosta Farzan,**  
associate professor, School of Computing and Information, University of Pittsburgh

**Sara Goodkind,**  
associate professor, School of Social Work; Department of Sociology; and Gender, Sexuality, and Women's Studies Program; University of Pittsburgh

**Ellen Goodman,**  
professor, School of Law, Rutgers, the State University of New Jersey

**David Harris,**  
Sally Ann Semenko Endowed Chair and professor, School of Law, University of Pittsburgh

**Yu-Ru Lin,**  
associate professor, School of Computing and Information, University of Pittsburgh

**Sharon McDaniel,**  
founder, president, and CEO, A Second Chance

**Michelle McMurray,**  
vice president of program and community engagement, The Pittsburgh Foundation

**Mark A. Nordenberg,**  
chair, Institute of Politics; Distinguished Service Professor of Law, School of Law; and chancellor emeritus, University of Pittsburgh

**Beth Schwanke,**  
executive director, Pitt Cyber

**LaTrenda Sherrill,**  
lead consultant, Common Cause Consultants, and former deputy chief (education), Office of the Mayor, City of Pittsburgh

**Michael Skirpan,**  
executive director, Community Forge, and special faculty, Department of Philosophy, Dietrich College of Humanities and Social Sciences, Carnegie Mellon University

**Nyssa Taylor,**  
criminal justice policy counsel, ACLU of Pennsylvania

**Frederick Thieman,**  
Henry Buhl Jr. Chair for Civic Leadership, Buhl Foundation; chair, Board of Trustees, Community College of Allegheny County; and former U.S. attorney for the Western District of Pennsylvania

*Task force members are serving in their individual capacity.*



Pittsburgh Task Force on Public Algorithms

## Government Advisory Panel

The task force is served by an advisory panel of designees from Allegheny County and the City of Pittsburgh.

**Chris Belasco,**  
manager, data services, Department of Innovation and Performance, City of Pittsburgh

**Erin Dalton,**  
director, Department of Human Services, Allegheny County

**T. Matthew Dugan,**  
chief public defender, Allegheny County Office of the Public Defender

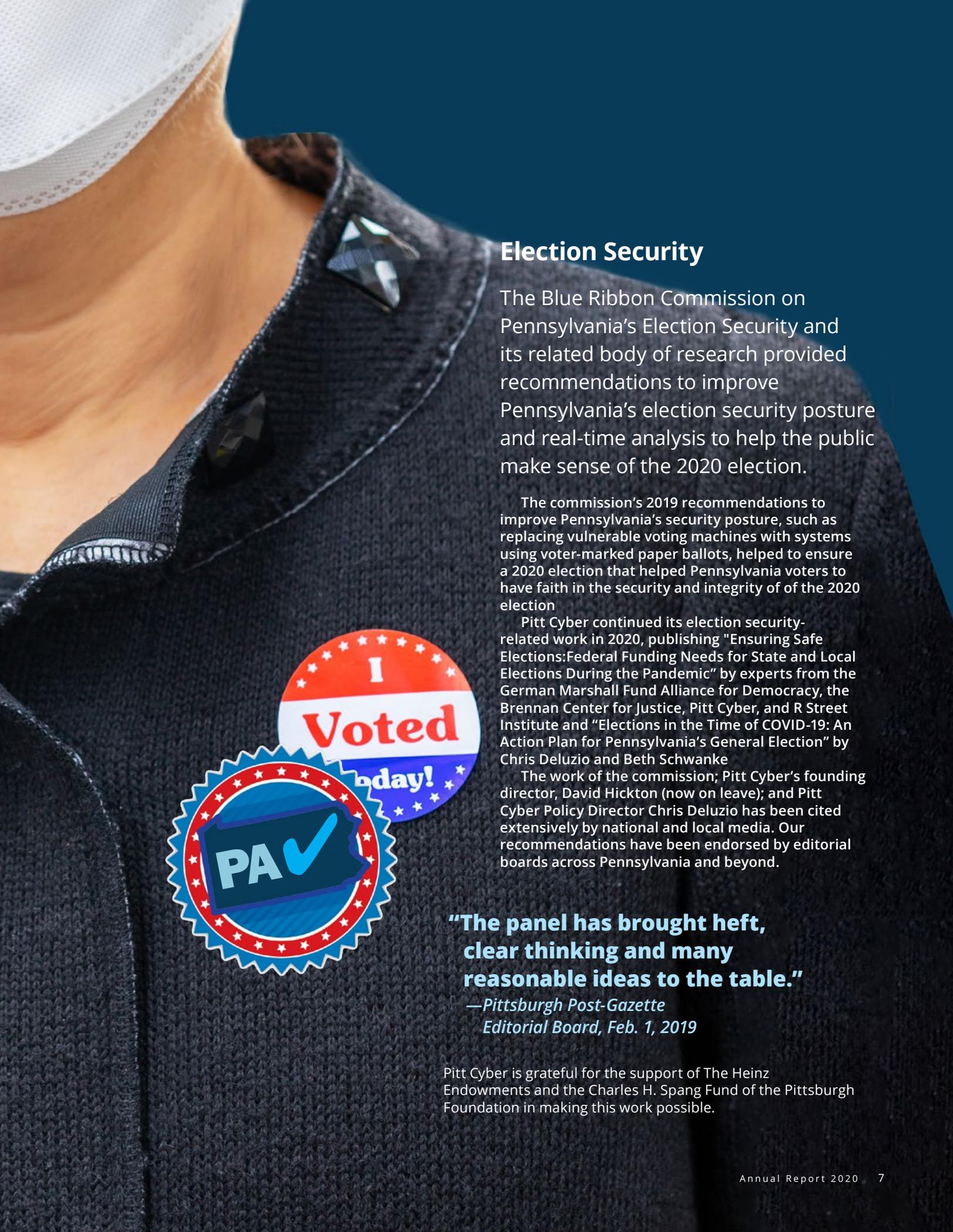
**Joanne Foerster,**  
director of performance and analytics, Allegheny County

**Heath Johnson,**  
manager, crime analysis, Pittsburgh Bureau of Police

**Laura Meixell,**  
enterprise data architect, Department of Human Services, Allegheny County

**Shatara Murphy,**  
assistant director, community affairs, Department of Public Safety, City of Pittsburgh

We also are deeply indebted to the Western Pennsylvania Regional Data Center, Carl DiSalvo (Georgia Institute of Technology), Common Cause Consultants, WBK Legal, Motahhare Eslami (Carnegie Mellon), Hong Shen (Carnegie Mellon), Pitt's University Center for Social and Urban Research, Ken Holstein (Carnegie Mellon), and Sarah Fox (Carnegie Mellon) for their ongoing contributions.



## Election Security

The Blue Ribbon Commission on Pennsylvania's Election Security and its related body of research provided recommendations to improve Pennsylvania's election security posture and real-time analysis to help the public make sense of the 2020 election.

The commission's 2019 recommendations to improve Pennsylvania's security posture, such as replacing vulnerable voting machines with systems using voter-marked paper ballots, helped to ensure a 2020 election that helped Pennsylvania voters to have faith in the security and integrity of the 2020 election.

Pitt Cyber continued its election security-related work in 2020, publishing "Ensuring Safe Elections: Federal Funding Needs for State and Local Elections During the Pandemic" by experts from the German Marshall Fund Alliance for Democracy, the Brennan Center for Justice, Pitt Cyber, and R Street Institute and "Elections in the Time of COVID-19: An Action Plan for Pennsylvania's General Election" by Chris Deluzio and Beth Schwanke.

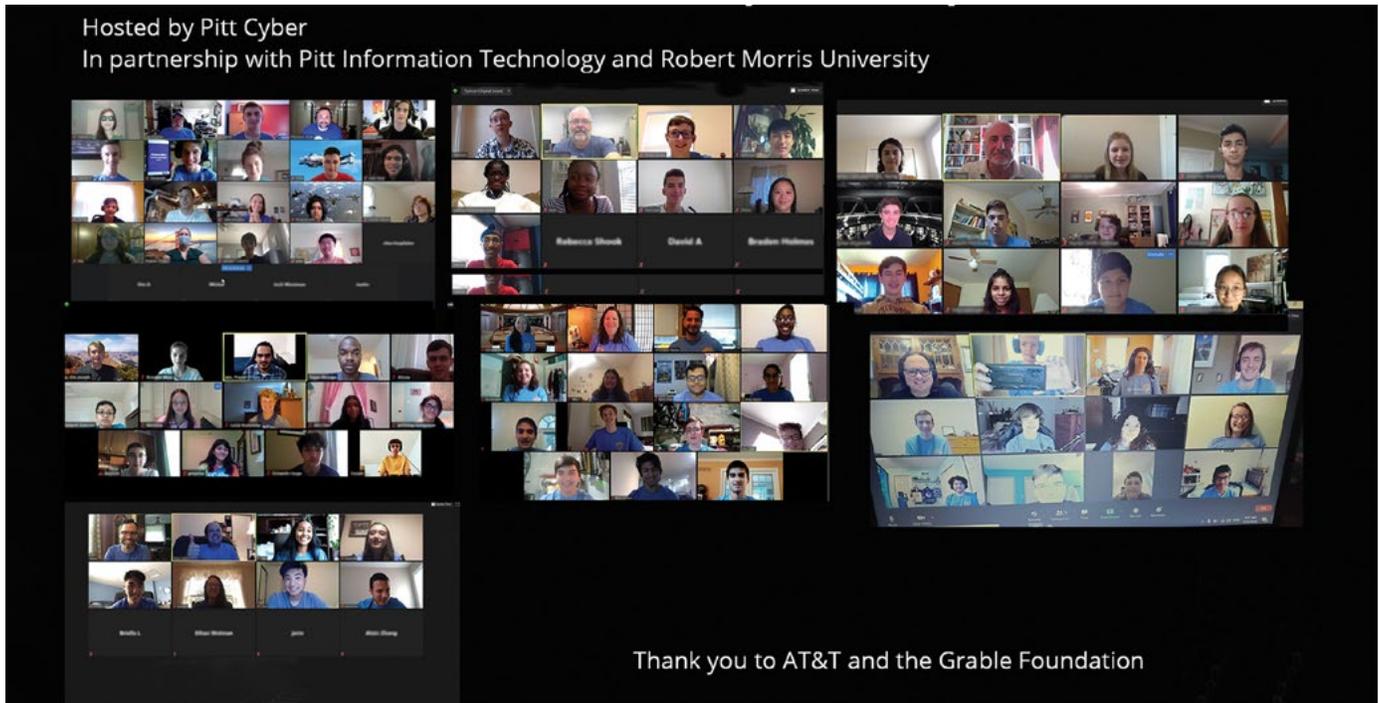
The work of the commission; Pitt Cyber's founding director, David Hickton (now on leave); and Pitt Cyber Policy Director Chris Deluzio has been cited extensively by national and local media. Our recommendations have been endorsed by editorial boards across Pennsylvania and beyond.

**"The panel has brought heft, clear thinking and many reasonable ideas to the table."**

—*Pittsburgh Post-Gazette*  
Editorial Board, Feb. 1, 2019

Pitt Cyber is grateful for the support of The Heinz Endowments and the Charles H. Spang Fund of the Pittsburgh Foundation in making this work possible.

## Air Force Association CyberCamp



Pitt Cyber hosted its fourth annual Air Force Association CyberCamp for high school students in summer 2020 in partnership with Pitt Information Technology and Robert Morris University.

The camp is a pillar of Pitt Cyber’s efforts to expand an inclusive pipeline for future technologists and is free for all students. The camp inspires students to take an interest in cybersecurity and other science, technology, engineering, and math (STEM) fields. The interactive curriculum is focused on cyber ethics, systems security, and network security.

Our first-ever virtual camp saw 100 students from across Pittsburgh joining us and 18 instructors from Pitt, Robert Morris, regional high schools, and corporations.

**“STEM careers are becoming more in high demand, so it’s up to our generation to make sure the demand is met.”**

*—a 2020 Air Force Association CyberCamp student*

We are grateful to AT&T and to The Grable Foundation for their generous support.

**"CyberCamp helped me discover a career path which I am very interested in pursuing."**

*—a 2020 Air Force Association CyberCamp student*

**"Before this camp, I had no experience with cybersecurity. I now feel confident in my abilities."**

*—a 2020 Air Force Association CyberCamp student*



## Hacking4Humanity



**P**itt Cyber, the School of Computing and Information, the Ford Institute for Human Security at the Graduate School of Public and International Affairs (GSPIA), Pitt Information Technology, and the University Honors College hosted the second annual Hacking4Humanity event with support from Pitt's Year of Creativity.

In 2019, we called on Pitt students and other area students to create technologies to help prevent human trafficking. Inspired by challenge scenarios developed by GSPIA students, participants created technologies ranging from platforms for smart contracts to prevent labor trafficking to interactive games to educate teens about potential trafficking risks.

In 2020, we hosted a virtual hackathon, asking participating students to create technologies or policy proposals to mitigate disinformation. The competition consisted of three tracks: Tech Proposal, Tech in Action and Policy Proposal. Congratulations to our winners!

**Tech Proposal:**

**Digital Deception: A story-based video game to teach players to identify and mitigate disinformation**

**Hannah Mencer,**

School of Computing and Information,  
Class of 2024

**Tech in Action:**

**Metis: A people-powered platform targeting disinformation**

**Guangrui Wang,**

School of Computing and Information,  
Class of 2020

**Policy Proposal (tie):**

**AI-generated Disinformation: A proposal to the National Institute of Standards and Technology and the U.S. House of Representatives**

**Energy Subcommittee**

**on Communications and Technology**

**Alex Zharichenko,**

School of Computing and Information,  
Class of 2022, and

**Hayden Stec,**

School of Computing and Information,  
Class of 2022

and

**Addressing Disinformation on Twitter: A proposal to Twitter on mitigating disinformation**

**Briana Wipf,**

doctoral student, Department  
of English, Kenneth P. Dietrich School  
of Arts and Sciences

## Cyberbullying Prevention and Intervention

**P**itt Cyber affiliate scholars Lisa Nelson from the Graduate School of Public and International Affairs, Rosta Farzan from the School of Computing and Information, Mary Ohmer from the School of Social Work, Ana Radovic from the School of Medicine, and Candice Biernesser from the Department of Psychiatry in the School of Medicine are developing a program focused on cyberbullying prevention and intervention in early adolescence thanks to the support of AT&T.

The program, Upstander Junior, is a research-based assembly program for middle schools that includes an ongoing mentoring component to help middle school students fight cyberbullying and builds on AT&T's Upstander program for high school students.



## Scholarship

### Pitt Cyber Accelerator Grants

We launched the Pitt Cyber Accelerator Grants (PCAG) program in 2018 to provide initial funding for novel and innovative projects that advance Pitt Cyber's mission: to bring the breadth of one of the world's leading public research universities to bear on the critical questions of networks, data, and algorithms, with a focus on the ever-changing gaps among law, policy, and technology.

PCAG funding is used to advance projects that establish and extend key intellectual infrastructures, such as research and teaching in methods with broad application and utility across disciplines, and projects that bring together researchers across fields of interest.

## Fall 2020 Recipients

### **A Computational Approach to Measuring and Explaining Sophistication and Argumentation in Political Discourse**

**Malihe Alikhani,**  
assistant professor, School of Computing and Information

**Max Goplerud,**  
assistant professor, Department of Political Science, Kenneth P. Dietrich School of Arts and Sciences

**Tessa Provins,**  
assistant professor, Department of Political Science, Dietrich School

### **People-Centered Data Analysis**

**Michael Goodhart,**  
professor, Department of Political Science, Dietrich School

**Jackie Smith,**  
professor, Department of Sociology, Dietrich School

**Laura Wiens,**  
executive director, Pittsburghers for Public Transit

### **Developing Digitally Mediated Transparency for Police-Community Relations**

**Yu-Ru Lin,**  
associate professor, School of Computing and Information

**Sera Linardi,**  
associate professor, Graduate School of Public and International Affairs

### **The Cyber Ethics Education Accelerator**

**Jennifer Petrie,**  
postdoctoral fellow, Joseph M. Katz Graduate School of Business

**Cassie Quigley,**  
associate professor, School of Education

**Anthony Rodi,**  
clinical associate professor, Katz Graduate School of Business

### **A Beacon Approach to Providing COVID-19 Contact Tracing Privacy**

**David Tipper,**  
professor, School of Computing and Information

**Konstantinos Pelechrinis,**  
associate professor, School of Computing and Information

**Mai Abdelhakim,**  
assistant professor, Swanson School of Engineering

**Prashant Krishnamurthy,**  
professor, School of Computing and Information

**Alexandros Labridnidis,**  
professor, School of Computing and Information

**Balaji Palanisamy,**  
associate professor, School of Computing and Information

**Jacob Biehl,**  
associate professor, School of Computing and Information

## Spring 2020 Recipients

### **Measuring Worldviews: A Map of Stubborn Social Skills**

**Rongqian Ma,**  
doctoral student, School of Computing and Information

**Lara Putnam,**  
UCIS Research Professor, Department of History, Dietrich School

**Lingfei Wu,**  
assistant professor, School of Computing and Information

### **Investigation of Analogs between Social, Organizational, and Technical Domains for Information Security**

**Mai Abdelhakim,**  
assistant professor, Swanson School of Engineering

**Prashant Krishnamurthy,**  
professor, School of Computing and Information

### **Virtual Reality Gaming for Military Mission Planning**

**Lieutenant Colonel Diana Bishop,**  
commander, Detachment 730, and chair, Department of Aerospace Studies, U.S. Air Force ROTC

### **Evaluation of Educational Interventions in Reducing Compromises from Phishing Attacks**

**Changran Fan**  
doctoral student, Katz Graduate School of Business

**M. Zia Hydari,**  
assistant professor, Katz Graduate School of Business

**Narayan Ramasubbu,**  
associate professor, Katz Graduate School of Business

### **Sensing Infrastructure during the Pandemic**

**Amy Babay,**  
assistant professor, School of Computing and Information

**Jacob Biehl,**  
associate professor, School of Computing and Information

**Adriana Kovashka,**  
assistant professor, School of Computing and Information

**Olga Kuchinskaya,**  
associate professor, Department of Communication, Dietrich School

**Adam J. Lee,**  
associate professor, School of Computing and Information

**Stephen Lee,**  
assistant professor, School of Computing and Information

**Eleanor Mattern,**  
teaching assistant professor, School of Computing and Information

## Disinformation

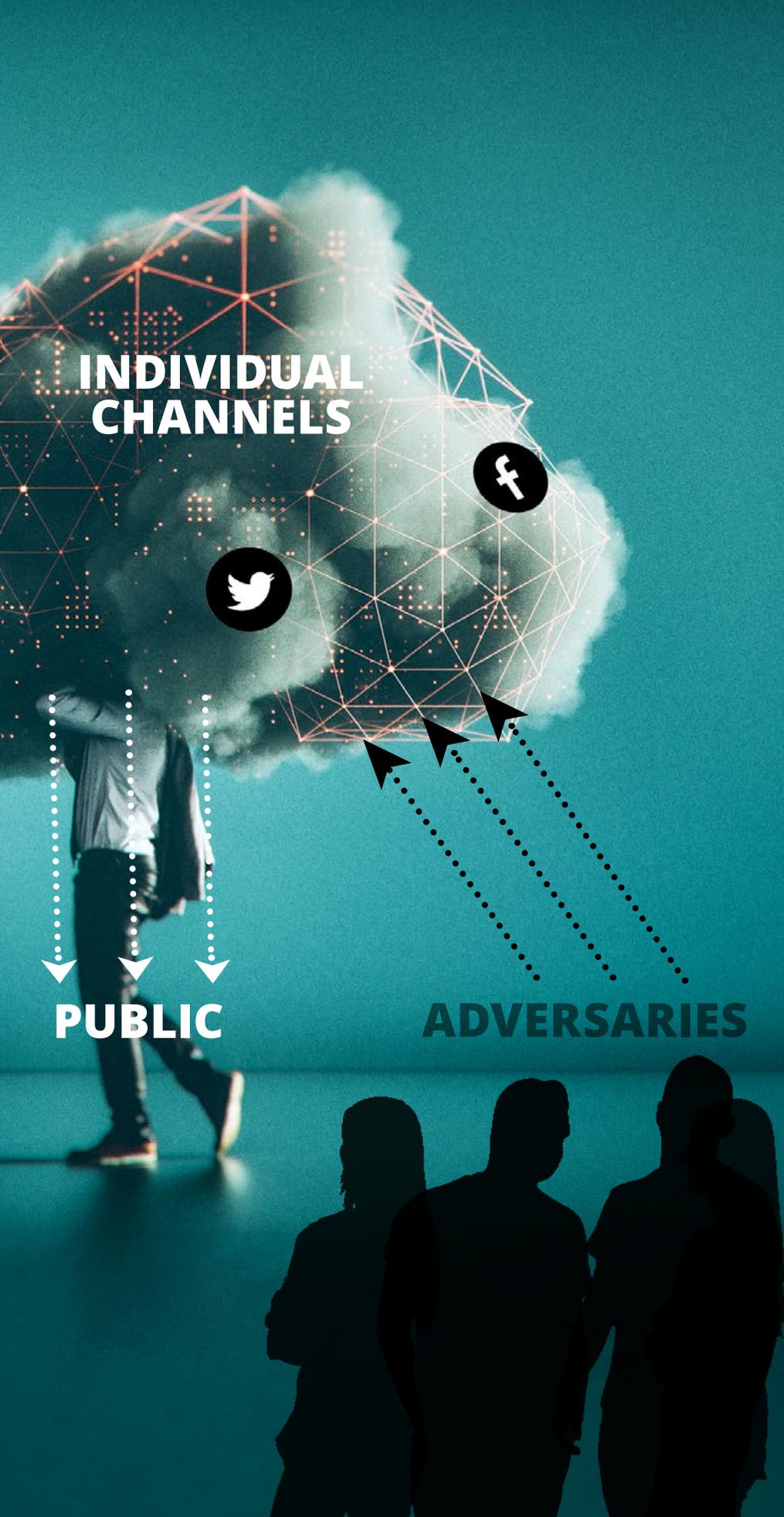
**F**rom the Tree of Life synagogue shootings to the COVID-19 pandemic and the attack on the Capitol, recent events have dramatically spotlighted the dangers of both disinformation that is knowingly disseminated and misinformation that is mistakenly amplified on social media platforms. Messages sowing distrust in experts, vaccines, and democratic institutions have led to deaths and called the continued viability of democracy and liberal international cooperation into question.

With affiliate scholars in computer and information science, law, public health, and the social sciences, Pitt Cyber has been able to foster valuable

and unique cross-disciplinary partnerships to help understand and build resilience to this societal-level challenge. These projects also have connected us with partners at Carnegie Mellon University and Duquesne University, further elevating Pittsburgh as a national hub for research on digital literacy, the costs and benefits of regulating surveillance online, and strategies for curtailing foreign influence efforts across democracies.

## EXPERTS





## INDIVIDUAL CHANNELS

PUBLIC

ADVERSARIES

### Disinformation-related efforts that Pitt Cyber participated in this past year included the following:

■ Research and Academic Director Michael Colaresi presented work at Carnegie Mellon on April 6, 2020, titled “Does Not Compute (and Might Self-destruct): Digital Vulnerabilities in the Liberal World Order,” describing how rivals such as Russia are able to disrupt social solutions in and between democracies and what steps can be taken to counteract them.

■ Affiliate scholar Yu-Ru Lin, along with Pitt colleagues Adriana Kovashka and Wen-Ting Chung, received a grant from the National Science Foundation for Countering COVID-19 Misinformation via Situation-aware Visually Informed Treatment.

■ Colaresi joined the launch of Duquesne University’s Carl G. Grefenstette Center for an event titled Disinformation, Misinformation, and Technology: New Ethnical Challenges and Solutions on October 7, 2020.

■ Pitt Cyber cohosted a discussion on October 19, 2020, with Carnegie Mellon’s CyLab to discuss the Cyberspace Solarium Commission recommendation with a panel on countering disinformation with affiliate scholar Lara Putnam of Pitt, Kathleen Carley of Carnegie Mellon, and Chris Inglis and Suzanne Spaulding of the Cyberspace Solarium Commission that was moderated by Colaresi.

■ Affiliate scholar Jaime Sidani, Colaresi, and Beth Hoffman, doctoral student in Pitt’s Graduate School of Public Health, participated in a symposium titled Disinformation and Misinformation: Politics, Pandemics, and Public Health on November 13, 2020.

## Research and Publications

Pitt Cyber's staff and affiliate scholars continue to publish widely. The following are selected publications from 2020.

### **Elections in the Time of COVID-19: An Action Plan for Pennsylvania's General Election**

May 2020 | by Christopher Deluzio, policy director, and Beth Schwanke, executive director, Pitt Cyber

### **Ensuring Safe Elections: Federal Funding Needs for State and Local Governments during the Pandemic**

April 2020 | by Christopher Deluzio, policy director, Pitt Cyber; David Levine, elections integrity fellow, Alliance for Securing Democracy; Elizabeth Howard, counsel, Brennan Center for Justice; Derek Tisler, fellow, Brennan Center for Justice; and Paul Rosenzweig, resident senior fellow, R Street Institute

### **Democracy Unchained: How to Rebuild Government for the People**

March 2020 | Part III (Can Democracy Survive the Internet?) by David Hickton, founding director, Pitt Cyber; edited by David W. Orr, Andrew Gumbel, Bakari Kitwana, and William S. Becker; The New Press

### **"The Universal Pathway to Innovative Urban Economies"**

August 2020 | by Morgan R. Frank, Inho Hong, Woo-Sung Jung, Iyad Rahwan, and Hyejin Youn; Science Advances

### **"Tools for Data Governance"**

July 2020 | by Michael Madison, Technology and Regulation

### **"Human Rights Are (Increasingly) Plural: Learning the Changing Taxonomy of Human Rights from Large-scale Text Reveals Information Effects"**

June 2020 | by Michael Colaresi, Kevin Greene, and Baekkwon Park; Cambridge University Press

### **"How Our Misunderstanding of the Digital and Computing Revolutions Puts Democracy at Risk (and What to Do about It)"**

May 2020 | by Michael Colaresi; Wiley Online Library

### **Oyez! Robot (review)**

January 2020 | by Michael Madison; Technology Law JOTWELL

## Events

Pitt Cyber hosted and participated in a range of events in 2020, including the following:

### **Threats to the Vote and Democracy in Pennsylvania and Beyond,**

hosted by the University of Pittsburgh School of Law and Pitt Cyber

### **A Strategic Approach to U.S. Cybersecurity with the Cyberspace Solarium,**

hosted by Pitt Cyber and Carnegie Mellon's CyLab

### **"What's Next for PA Elections?"**

hosted by WITF-FM

### **Equity and Justice in Government Algorithms Workshop, Pitt Diversity Forum Preet Bharara in Conversation with Pitt Cyber**

### **"Can Democracy Survive the Internet?"**

hosted by The Dick Thornburgh Forum for Law & Public Policy

### **Coding Carnival at the Children's Museum of Pittsburgh MuseumLab Tech Lab,**

hosted by Pitt Cyber and the Dietrich School Department of English, Digital Media Lab, and Composition Program

## New Partnerships

In 2020, Pitt joined the **Cybersecurity Manufacturing Innovation Institute (CYMANII)**, a \$111 million five-year agreement with the U.S. Department of Energy to encourage American manufacturers and supply chains to adopt secure, energy-efficient approaches. The collaborative research and development approach aims to protect manufacturers against cyber criminals and foreign actors with a focus on securing automation and the supply chain network as well as building a national program for education and workforce development. Daniel Cole, associate professor of mechanical engineering and materials science at the Swanson School of Engineering and Pitt Cyber affiliate scholar, will lead Pitt's CYMANII efforts and is joined by affiliate scholars from across the University.

### **Pitt Cyber was invited to join the Aspen Institute Cybersecurity Collaborative Network,**

which helps civic institutions to maximize their impact on the cyber policy field.

### **Pitt Cyber also is pleased to partner with Pittsburgh DataWorks**

and others to host the annual Pittsburgh DataJam for high school students. Pitt Cyber is teaming with the DataJam to bring issues of data ethics and security into the program, including through a grant from Pitt's Year of Engagement.

## Selected Media

The following are highlights of media coverage of work from Pitt Cyber and its affiliate scholars in 2020:

### Agents of Chaos

HBO documentary

### “What We Must Do to Prevent the Next SolarWinds Hack”

The Hill

### “Elections Shaping Up to Become a Major Issue in Legislature”

Associated Press

### Pitt Cyber Policy Director Chris Deluzio on PA Election Security and the 2020 Election

WPXI TV

### “Suspicious Robocall Campaign Warning People to ‘Stay Home’ Spooks Voters Nationwide”

The Washington Post

### “PA Won’t See Full Results on Election Night. Experts Urge Trust in the Process Anyway”

PublicSource

### “A Year Ago, Voting Machines Malfunctioned in a Pivotal PA County. Have the Problems Been Fixed?”

The Philadelphia Inquirer

### “It’s Going to Be Hell’: How Pennsylvania Is on Track for Election Chaos”

Mother Jones

### “Election Security Researchers Agree—Online Voting Isn’t Ready for ‘Prime Time’ ”

EdScoop

### “What You Should Know about Cyberbullying: It’s On the Rise amid the Pandemic”

Kidsburgh

### “Emails Show Allegheny County District Attorney’s Office Used Trial of Controversial Facial Recognition Software Technology Clearview”

PublicSource

### “TikTok’s Massive Data Harvesting Prompts U.S. Security Concerns

Bloomberg

### “Pittsburgh Suspends Predictive Policing Program That Used Algorithms to Predict Crime Hot Spots”

Pittsburgh Post-Gazette

### “States’ Automated Systems Are Trapping Citizens in Bureaucratic Nightmares with Their Lives on the Line”

TIME

### Election Security Experts Urge Pennsylvania to Begin Planning for Expanded Mail-in Voting This Fall

TribLive

### Federal Leaders Must Get Behind Absentee Voting—or Explain Why They’d Prefer Chaos

The Washington Post

### Editorial: The High Cost of Safe Elections

TribLive

### Groups Urge More Election Security Aid to States

Politico

### The Cybersecurity 202: County Election Officials Detail Massive Costs of Remote Voting

The Washington Post

### Report Says Congress Needs to Step Up Funding to PA for Election Costs amid Pandemic

Pittsburgh Post-Gazette

### Report Finds States Need Millions More in Federal Funding to Hold Elections This Year

The Hill

### COVID-19: States to Spend Tens of Millions More on Elections This Year, Study Says

United Press International

### Report: More Federal Cash Needed for Safe, Secure 2020 Election

TribLive

### Battleground 2020: The Polls, Mail-in Voting, and Political Ads

WHYY Radio Times

### What Could Mail-in Voting Mean for Pennsylvania in the Age of COVID-19? Seven Experts Weigh In

Public Source

### Bill to Postpone PA Primary Heads to Governor’s Desk

Pittsburgh Post-Gazette

### How COVID-19 Could Reshape Pennsylvania’s Elections

Politically Inclined Podcast, Pittsburgh Post-Gazette

### Who Actually Has the Power to Postpone the Pennsylvania Primary over Coronavirus? And Will They Agree?

The Philadelphia Inquirer

### Residents Raise Concerns about Bias in County’s Automated Decision-making Tools

WESA

### Reliability of Pricy New Voting Machines Questioned

Associated Press

### What Pennsylvania Can Learn from Iowa’s Caucus Debacle—and the Conspiracy Theories That Followed

The Philadelphia Inquirer

### New Task Force to Address Bias in Allegheny County’s Automatic Decision-making Tools

WESA

### Countering Automation without Representation

David Hickton for The Hill

### Lawsuits over Voting Machines in Pennsylvania

NPR

### From Russia with Blood

Talking Feds Podcast

### Every PA County Will Have New Voting Machines—with Paper Trails—in 2020

The Philadelphia Inquirer

## People

### Institute Staff

**David Hickton,**  
founding director and professor,  
School of Law, University of  
Pittsburgh (on leave to serve as staff  
director and senior counsel to the  
U.S. House of Representatives Select  
Subcommittee on the Coronavirus  
Crisis)

**Beth Schwanke,**  
executive director

**Michael Colaresi,**  
research and academic director and  
William S. Dietrich II Chair of Political  
Science, Department of Political  
Science, Kenneth P. Dietrich School of  
Arts and Sciences

**Christopher Deluzio,**  
policy director

**Kiersten Todt,**  
resident scholar

**Sarah Barca,**  
administrative director

**Kate Ulreich,**  
information technology consultant,  
with thanks to the generosity of Pitt  
Information Technology

**David Frisch,**  
intern

**Veronica Oviedo,**  
legal intern

**Kara Dally,**  
legal intern

## Affiliate Scholars

Pitt Cyber's affiliate  
scholars are faculty  
members drawn from  
across the University.

**Kevin C. Abbott,**  
adjunct professor, School of Law

**Malihe Alikhani,**  
assistant professor, School of  
Computing and Information

**Kevin D. Ashley,**  
professor, School of Law

**Amy Babay,**  
assistant professor, School of  
Computing and Information

**Dmitriy Babichenko,**  
clinical associate professor, School of  
Computing and Information

**Elena A. Baylis,**  
professor, School of Law

**Mostafa Bedewy,**  
assistant professor, Swanson School  
of Engineering

**Candice Biernesser,**  
postdoctoral scholar, Department of  
Psychiatry, School of Medicine

**Ronald A. Brand,**  
Chancellor Mark A. Nordenberg  
University Professor; John E. Murray  
Faculty Scholar; and academic  
director, Center for International  
Legal Education, School of Law

**Matt Burton,**  
lecturer, School of Computing and  
Information

**Bruce R. Childers,**  
associate dean for strategic initiatives  
and professor, School of Computing  
and Information

**William W. Clark,**  
professor, Swanson School of  
Engineering

**Dan Cole,**  
associate professor and director,  
Stephen R. Tritch Nuclear  
Engineering Program, Swanson  
School of Engineering

**Mary Crossley,**  
professor, School of Law

**Stephanie Dangel,**  
executive director, Innovation  
Practice Institute, School of Law

**Rosta Farzan,**  
associate professor, School of  
Computing and Information

**Morgan R. Frank,**  
assistant professor, School of  
Computing and Information

**Lindsey French,**  
visiting assistant professor,  
Department of Studio Arts, Kenneth  
P. Dietrich School of Arts and  
Sciences

**Wei Gao,**  
associate professor, Swanson School  
of Engineering

**Alan D. George,**  
chair, Department of Electrical  
and Computer Engineering; R&H  
Mickle Endowed Chair; and director,  
National Science Foundation Center  
for Space, High-performance,  
and Resilient Computing (NSF  
SHREC Center), Swanson School of  
Engineering

**Michael Goodhart,**  
professor, Department of Political  
Science, Kenneth P. Dietrich School of  
Arts and Sciences

**Max Goplerud,**  
assistant professor, Department  
of Political Science, Kenneth P.  
Dietrich School of Arts and Sciences

**Joel M. Haight,**  
associate professor, Swanson School  
of Engineering

**David A. Harris,**  
Sally Ann Semenko Endowed Chair  
and professor, School of Law

**Harry Hochheiser,**  
associate professor, Department of  
Biomedical Informatics, School of  
Medicine

**Jingtong Hu,**  
assistant professor, Swanson School  
of Engineering

**M. Zia Hydari,**  
assistant professor, Joseph M. Katz  
Graduate School of Business

**Alex Jones,**  
professor and associate director, NSF  
SHREC Center, Swanson School of  
Engineering

**Kate Joranson,**  
head librarian, University Library  
System

**James Joshi,**  
professor, School of Computing and  
Information

**Michael Kenney,**  
associate professor and program  
director, international affairs,  
Graduate School of Public and  
International Affairs

**Mario Khreiche,**  
postdoctoral researcher, Department  
of History, Kenneth P. Dietrich School  
of Arts and Sciences

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## With Gratitude

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