

DAVID G. ROBINSON

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EDUCATION

- Yale Law School**—J.D. 2009—2012
Knight Law & Media Scholar, Information Society Project
Submissions Editor, *Yale Journal on Regulation*, 2010
- Balliol College, Oxford**—B.A., Philosophy and Politics 2004—2006
Rhodes Scholar
- Princeton University**—A.B., Philosophy, *magna cum laude* 2000—2004
Senior Thesis, *The Public Puzzle of Civil Disobedience*, received Class of 1868 Prize in Ethics.
Received Gregory T. Pope '80 Prize in Science Writing.

EXPERIENCE

Principal and Co-Founder, Upturn (*formerly Robinson & Yu*) 2011—Present

I co-founded this five-person, Washington-based public interest technology and policy consulting firm, with an approximately \$1MM annual budget. Upturn works to give people a meaningful voice in how digital technology shapes their lives, so that technology can promote the dignity and well-being of all people. We break down barriers among disciplines and communities, applying legal, technological and policy expertise to drive social change. We have a track record of high-impact collaboration with more than a dozen of the nation's leading civil rights and social justice organizations, including the Leadership Conference on Civil and Human Rights, the American Civil Liberties Union and the NAACP. We have drawn consistent strong support from the Ford Foundation, Open Society Foundations, and MacArthur Foundation, and other leading funders. At Upturn, I:

- Lead the team's growing work on the role of automated decisions in criminal justice, including ongoing efforts to understand and shape the civil rights impact of courtroom risk assessment, and of "predictive policing."
- Served as lead drafter of [Civil Rights Principles for the Era of Big Data](#), the first major public statement to draw attention to how big data can threaten civil rights, which were endorsed by a broad national coalition of leading civil rights organizations. Those principles, and our subsequent in-person coalition briefing of White House officials, led a White House report to conclude that "big data analytics have the potential to eclipse longstanding civil rights protections in how personal information is used in housing, credit, employment, health, education, and the marketplace." See *Big Data: Seizing Opportunities, Preserving Values*, (Exec. Office of the President), May 2014.
- Play a substantive and conceptual framing role in each of Upturn's public projects as described below.

Adjunct Professor of Law, Georgetown University Law Center From January 2017

Teaching seminar I proposed and designed, entitled "Governing Automated Decisions." Software influences people's life chances in a growing range of contexts, impacts access to basic rights, and mediates core mechanisms of justice. The seminar explores how automated decisions are made, the unique governance challenges that they pose, and the emerging suite of legal and

policy responses to these new challenges. We are focused on automated decisions that wield state power, because it is in these decisions that the unmet need for public understanding, and democratic governance, is most acute.

Visiting Fellow, Information Society Project at Yale Law School 2012—2017

Participated in the intellectual life and community of the cyberlaw research center at Yale. Periodically present my work and activities; mentor students interested in technology policy in Washington DC.

Associate Director, Center for Information Technology Policy, Princeton University 2007—2009

Launched a joint research venture between Princeton’s School of Engineering and its Woodrow Wilson School of Public and International Affairs, as the first staff person of the newly established Center. Managed all aspects of the Center’s operations, including a \$500,000 annual budget. Developed interdisciplinary research initiatives on Internet-enabled transparency and web-based survey methods. Recruited researchers, students, and staff. Created public programs and events, ranging from a conference on “The Future of News” to a workshop on cloud computing. Developed relationships with Washington policymakers.

Managing Editor, *The American* 2006—2007

Launched a new national magazine of business and economics at the American Enterprise Institute. Designed, edited and managed daily website at American.com. More than 1.5 million unique viewers visited the site in its first year.

PUBLICATIONS

Scholarship

1. Sergey Frolov, Fred Douglas, Will Scott, Allison MacDonald, Benjamin VanderSloot, Rod Hynes, Adam Kruger, Michalis Kallitsis, David G. Robinson, Steve Schultze, Nikita Borisov, J. Alex Halderman, and Eric Wustrow, *An ISP-Scale Deployment of TapDance*, Free and Open Communications on the Internet (FOCI ’17) Conference of USENIX Security (2017).

In a project more than six years in the making, we built a fundamentally new technology for fighting Internet censorship. Refraction networking – of which TapDance is one implementation – enlists Internet Service Providers in the fight against censorship, so that any secure web connection can become a pathway around censorship barriers. Here, we report the world’s first large-scale field trial of this strategy, in which we provided uncensored Internet connections to more than 50,000 users living in censored environments over a period of several weeks.

2. David G. Robinson, *Grounds for Optimism about Grounds for Optimism: New Digital Metrics for Government Responsiveness* (Commentary), 77 PUB. ADMIN. REV. 352 (2017).
3. Joshua A. Kroll, Joanna Huey, Solon Barocas, Edward W. Felten, Joel R. Reidenberg, David G. Robinson, and Harlan Yu, *Accountable Algorithms*, 165 U. PA. L. REV. 631 (2017).

Many important decisions formerly made by people are now made by computers, in areas ranging from criminal justice to health to employment and beyond. Legal and policy tools designed for human decisionmakers are poorly suited to ensure that automated decisions are correct and fair. Drawing on computer science expertise, we propose a new governance strategy, using cryptography to prove that a decision is rule-bound and correct, even when the decision comes from a “black box” that is secret or is too complex for direct human inspection.

Honored with the Future of Privacy Forum’s “Privacy Papers for Policymakers” award for “the year’s leading privacy research and scholarship judged most useful for policymakers in the U.S. Congress, federal and state agencies, and around the world,” 2016.

4. Harlan Yu & David G. Robinson, *The New Ambiguity of “Open Government”*, 59 UCLA L. REV. DISC. 178 (2012).
 The phrase “open government” originally referred to politically sensitive disclosures of government information. But during President Obama’s first term, that traditional meaning blurred and shifted toward technology. A recent technocratic trend toward “open government data” has changed the public discourse so that now, even a repressive government can claim the mantle of openness if it uses open source or certain other technologies. Our article proposes a new and clearer frame for the debate, separating the politics of open government from the technologies of open data.
 Context: Dr. Yu is a computer scientist; I am the sole legal academic author of this article. Cited 185 times (per Google Scholar). Featured on syllabi at Columbia University’s School of International and Public Affairs, Toronto Munk School of Global Affairs, Hebrew University of Jerusalem, and the Global Law Program of Fundação Getulio Vargas (Brazil).
5. David G. Robinson & J. Alex Halderman, *Ethical Issues in E-Voting Security Analysis* (invited paper). In Proc. 2nd Workshop on Ethics in Computer Security Research (WECSR), Castries, St. Lucia (March 2011).
 This paper seeks to provide the first comprehensive assessment of real-world ethical challenges facing computer security researchers when they investigate security flaws in electronic voting systems. Issues explored include whether scientists should delay disclosing vulnerabilities until they can be fixed, and whether incumbent elected officials should have privileged access to information about vulnerabilities.
6. David G. Robinson, Harlan Yu & Edward W. Felten, *Enabling Innovation for Civic Engagement*, in OPEN GOVERNMENT: TRANSPARENCY, PARTICIPATION, AND COLLABORATION IN PRACTICE (2010).
 Book chapter, updating “Government Data and the Invisible Hand” to provide additional practical guidance for government officials implementing our ideas. Intervened in the evolving discussion to argue that governments should allow anyone to retrieve the complete set of relevant published data (i.e., “bulk data”) that is of interest to them, rather than providing only a programmatic interface that returns a few records at a time.
7. David G. Robinson, Harlan Yu, William P. Zeller & Edward W. Felten, *Government Data and the Invisible Hand*, 11 YALE J. L. & TECH. 160 (2009).
 We argue for a fundamentally new approach to Internet-enabled government transparency: the executive branch should focus on creating a simple, reliable and publicly accessible infrastructure that exposes the underlying data it seeks to disclose. Private actors, either nonprofit or commercial, are better suited to deliver government information to citizens and can constantly create and reshape the tools individuals use to find and leverage public data. We further argue that the best way to effectuate this policy—and insure broad and meaningful access to public data for third party innovators—is to require that federal websites themselves use the same open systems for accessing the underlying data as they make available to the public at large.
 Context: This article—first released in the summer of 2008—was a key point of reference for the incoming Obama administration, and substantially shaped the federal government’s first-ever “open data” policy. All three of my coauthors on this paper were computer scientists. Cited 219 times (per Google Scholar). Featured on syllabi at Stanford, NYU Wagner Graduate School of Public Service, and Rutgers.
 “The rationale for Data.gov was laid out convincingly by David G. Robinson et al. in ‘Government Data and the Invisible Hand’” – Tim O’Reilly, *Government as a Platform*, in OPEN GOVERNMENT: TRANSPARENCY, PARTICIPATION, AND COLLABORATION IN PRACTICE (2010).

Public Reports

1. David Robinson and Miranda Bogen, *Data Ethics: Investing Wisely in Data at Scale* (Upturn 2016).
 Newly feasible ways of collecting and using digital information open new avenues for philanthropic investment. At the same time, projects that leverage data at scale create new risks that are not addressed by existing regulatory, legal and best practice frameworks. Our report focuses on three of these new risks: First, public data can now be used in a growing variety of potentially harmful ways, even though its collection and

use are not carefully regulated. Second, decisions driven by data at scale offer profound benefits in many areas of work, but also pose a risk of reinforcing longstanding social biases—and the use of automation may give decisions an unearned patina of social neutrality. Third, human capital and institutional expertise for leveraging data at scale are concentrated in certain large companies and government organizations, creating a long-term challenge for the nonprofit sector and academic researchers’ capacity to harness these powerful new methods and shape how they are used across society. Our report—jointly commissioned by the Ford and MacArthur foundations—proposes concrete steps that foundations can take to begin addressing these risks.

2. David Robinson and Logan Koepke, *Stuck in a Pattern: Early Evidence on “Predictive Policing” and Civil Rights* (Upturn 2016).

The term “predictive policing” refers to computer systems that use data to forecast where crime will happen or who will be involved. Though these systems are rolling out in police departments nationwide, our research found pervasive, fundamental gaps in what’s publicly known about them. In our survey of the nation’s 50 largest police forces, we found that at least 20 of them have used a predictive policing system, with at least an additional 11 actively exploring options to do so. Vendors shield the technology in secrecy, and informed public debate is rare. Early research findings suggest that these systems may not actually make people safer — and that they may lead to even more aggressive enforcement in communities that are already heavily policed.

3. Aaron Rieke, David Robinson and Harlan Yu, *What ISPs Can See: Clarifying the Technical Landscape of the Broadband Privacy Debate* (Upturn 2016).

In early 2016 the Federal Trade Commission, having reclassified broadband Internet service as a common carriage service, was considering whether to impose strong new privacy rules for broadband Internet service. Some voices in the debate argued that encryption removes the need for any privacy rules—a position favored by the broadband industry. We provided an accessible, technically robust counterpoint to this argument, explaining that Internet providers can still see a significant amount of their subscribers’ Internet activity, and can still infer substantial amounts of sensitive information from that activity, even after strong encryption technologies are widely adopted. In its eventual order adopting strong privacy rules for broadband service, the FCC cited our report twelve times. See [FCC Report and Order](#) in the Matter of Protecting the Privacy of Consumers of Broadband and Other Telecommunications Services, FCC Dkt. 16-148 (Oct. 27, 2016).

4. Aaron Rieke, David Robinson, and Harlan Yu, *Civil Rights, Big Data, and Our Algorithmic Future* (Upturn 2014).

Decisions that impact people’s civil rights are increasingly being made automatically, by computers. As a result, a growing number of important conversations about civil rights, which focus on how these decisions are made, are also becoming discussions about how computer systems work. This report offers a practical inventory of concrete examples in which big data impacts civil rights.

5. David Robinson Harlan Yu, and Anne An, *Collateral Freedom: A Snapshot of Chinese Users Circumventing Censorship* (Open Internet Tools Project 2013).

Internet users in China can’t freely explore the Internet because of the regime’s “Great Firewall,” a sophisticated infrastructure of technical filters and controls. Governments and philanthropies fund software to help users break through that barrier. We built and executed a survey to reach those users and find out which tools work best for them. Our results led us to propose a new strategic approach to the problem, which we termed “collateral freedom”—maximizing the collateral economic cost of Internet censorship, without necessarily using the most elaborate encryption. Funders and advocates have embraced this new approach, and continue to use this framing to guide their work. See, e.g., *Collateral Freedom: Thwarting Censorship in 13 “Enemy of the Internet” Countries*, Reporters Sans Frontiers (March 12, 2016).

Essays, Book Reviews, and Other Public Writing

1. *Grounds for Optimism About Grounds for Optimism: New Digital Metrics for Government Responsiveness*, __ PUB. ADMIN. REV. __ (Forthcoming 2017).

2. *Airbnb's Racism Problem Is Much Bigger Than a Few Racist Hosts*, Medium (July 31, 2016), (Selected as a “featured” story across the Medium platform. Read more than 30,000 times.)
3. *Are We Rushing to Judgment Against the Hidden Power of Algorithms?* Freedom to Tinker (July 30, 2014).
4. *Bookshelf: A Soft Spot for Hard Drives*, WALL ST. J., Sept. 9, 2010, at A13 (reviewing Clifford Nass, *The Man Who Lied to His Laptop* (2010))
5. *It All Happens So Suddenly*, WALL ST. J., June 12, 2009, at A13 (reviewing Bill Wasik, *And Then There's This* (2009)).
6. *Cyber Civil Rights* Symposium Participant, *Concurring Opinions* blog (April 2009) [1] [2] [3]
7. *Net Gains*, *Wilson Quarterly*, Spring 2008, at 103 (reviewing Lee Siegel, *Against the Machine: Being Human in the Age of the Electronic Mob* (2008)).
8. *What Were We Talking About?*, WALL ST. J., June 12, 2008, at A15 (reviewing Maggie Jackson, *Distracted: The Erosion of Attention and the Coming Dark Age* (2008)).
9. *The Keepers of the Keyboard*, WALL ST. J., April 13, 2006, at D8 (reviewing Jack Goldsmith & Tim Wu, *Who Controls the Internet? Illusions of a Borderless World* (2006)).
10. *Review & Outlook, Internet Pirates*, WALL ST. J., August 10, 2004, at A10.

PUBLIC AND PROFESSIONAL SERVICE

1. Program Committee, *Fairness, Accountability and Transparency in Machine Learning*, New York, NY (Nov. 18, 2016).
2. Expert panelist at ministerial preparation summit for the Open Government Partnership, French Ministry of Higher Education and Research, “Ce Que Peut La Recherche Pour Un Gouvernement Ouvert?” (What Can Research Do For Open Government?) (Oct. 11, 2016).
3. Resource Council Member, Open Media and Information Companies Initiative (Sept. 2016—)
4. Expert briefing on broadband privacy for Federal Communications Commission staff (Jan. 28, 2016).
5. Expert participant in coalition meetings to brief government officials on big data and civil rights. Prompted by the Civil Rights Principles for the Era of Big Data, these included meetings with:
 - A bipartisan group of U.S. Senate staff working on privacy issues (Mar. 21, 2014)
 - The White House Big Data & Privacy Working Group, led by Counsellor to the President John Podesta (Mar. 26, 2014)
 - Federal Trade Commissioner Maureen Ohlhausen (May 29, 2014)
 - Erika Brown Lee, Chief Privacy and Civil Liberties Officer, U.S. Department of Justice (June 4, 2014)
6. Presentation at the World Bank on “The New Ambiguity of Open Government” (with Harlan Yu) (April 12, 2012).
7. Testified before U.S. House of Representatives, Committee on Oversight and Government Reform, on “The American Recovery and Reinvestment Act of 2009: The Role of State and Local Governments,” Apr. 21, 2009.

8. Member, U.S. Public Policy Committee, Association for Computing Machinery (USACM) 2007–present.
 - Lead Drafter, USACM Recommendations on Open Government (Feb. 5, 2009)

GUEST LECTURES

1. Lectured on predictive policing in Law 2.0: How Technology is Changing Practice and Ethics, University of Calgary Faculty of Law (Oct. 28, 2016).
2. Lectured on predictive policing in When Machines Decide: The Promise and Peril of Living in a Data-Driven Society (Oct. 20, 2016).
3. Seminar on Cyber-Disasters: Guest taught, at a Yale Law School seminar on disasters, a special session on Cyber-Disasters. Selected and annotated the readings; framed and led the discussion. Eugene Fiddell, primary instructor for the seminar, wrote afterwards “to thank you again for your extraordinary presentation. As you could see, the students were highly engaged.” (Mar. 6, 2012).

SELECTED PANELS AND PRESENTATIONS

1. Predictive Analytics: Cross-Cutting Issues of Law, I/S Symposium, Ohio State University Moritz College of Law (Mar. 24, 2017).
2. For the People, By the Robots? Democratic Governance in a Machine-Learning Era, Optimizing Government Project, University of Pennsylvania Law School (Feb. 20, 2017) [[video](#)].
3. Data-Driven Innovation and Machine Learning as Tools for Social Justice and Economic Opportunity, Google Next Generation Leadership Summit (Dec. 8, 2016).
4. Big Data and Civil Rights: A Field Report from Washington, DC, Vanderbilt Law School (Oct. 18, 2016).
5. Weapons of Math Destruction, The New America Foundation – proposed, organized and moderated a fireside chat with author Cathy O’Neill on her new book, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*, and a panel discussion afterwards. (Oct. 17, 2016) [[video](#)].
6. The Intersection of Poverty and Data: How Big and Open Data Helps and Harms People in Poverty, Philly Tech Week (May 5, 2016).
7. Opening the Black Box: Big Data, Automation, and Algorithmic (In)Justice, Rebellious Lawyering Conference at Yale Law School (Feb. 19, 2016).
8. Panelist, Dynamic Trends in the Collection and Use of Consumer Online Data, State of the Net 2016 (Jan. 25, 2016) [[video](#)].
9. Predictive Policing: Prejudicial ‘Pre Crime’ or Helpful Sociological Analysis?, Computers, Freedom and Privacy conference (Oct. 13, 2015).
10. Firestarter presentation on Accountable Algorithms, Algorithms and Accountability Conference, Information Law Institute, NYU School of Law (Feb. 28, 2015) [[video](#)]
11. Firestarter presentation on opportunities in data and civil rights, Data & Civil Rights: Why “Big Data” Is a Civil Rights Issue (Oct. 30, 2014) [[video](#)]

12. Panelist at Federal Trade Commission Workshop, “Big Data: A tool for inclusion or exclusion?” (Sept. 15, 2014). Remarks and comment were extensively cited in subsequent FTC report.
13. The Intersection of Privacy and Civil Rights, Computers, Freedom and Privacy (June 9, 2014).
14. The Public-Private Surveillance Partnership: Myth or Reality?, RightsCon Silicon Valley (Mar. 4, 2014) (panel moderator).
15. Collateral Freedom: A Snapshot of Chinese Users Circumventing Censorship, Ideas Lunch presentation, Information Society Project at Yale Law School (Jan. 29, 2014).
16. The Anti-Botnet Cases, Law and Computer Science Conference, University of Pennsylvania School of Law (June 25, 2013).
17. Proposed topic for, and helped plan, YLS Information Society Project’s spring 2011 conference, “From Mad Men to Mad Bots: Advertising in the Digital Age.” Hosted on-stage fireside chat with Edward W. Felten, then Chief Technologist of the Federal Trade Commission (Mar. 25-26, 2011).
18. Featured Talk, “Attention, Distraction, and Information Glut.” Future of News Workshop, Center for Information Technology Policy, Princeton University (May 15, 2008) [[video](#)]

SELECTED MEDIA APPEARANCES

Quoted or featured as an expert in: The Wall Street Journal, The Washington Post, FOX Business, Al Jazeera America, CNET News, OZY, Mic.com, The American Prospect, and The Nation. Archived media includes:

1. [Weapons of Math Destruction](#), Science for the People (Mar. 31, 2017).
2. [Ethics and Civil Rights in a Big Data World](#), Rewiring Government Podcast (Nov. 16, 2016).
3. [“Predictive Policing” Isn’t Just Science Fiction—It’s Real, and it’s Out of Control](#), WashingTech Policy Podcast (Nov. 7, 2016).
4. [When Computers Made Decisions, it’s Political](#), NetPositive Podcast (July 28, 2016).
5. [The Sharing Economy’s Discrimination Problem](#), The Stream – Al Jazeera English (July 5, 2016).

PROFESSIONAL AND ACADEMIC REFERENCES

[Dr. Harlan Yu](#), Principal and Co-founder, Upturn.

[Prof. J. Alex Halderman](#), Professor of Computer Science & Engineering, University of Michigan and Director, Center for Computer Security and Society.

[Prof. Jack M. Balkin](#), Knight Professor of Constitutional Law and the First Amendment, and Director of the Information Society Project, Yale Law School.

[Prof. Danielle Citron](#), Morton & Sophia Macht Professor of Law, University of Maryland Francis King Carey School of Law.

[Prof. Edward W. Felten](#), Deputy Chief Technology Officer of the United States. Director of the Center for Information Technology Policy, and Robert E. Kahn Professor of Computer Science and Public Affairs, Princeton University.

[Prof. James Girmmelmann](#), Professor of Law, Cornell Tech and Cornell Law School.

Mr. Eugene R. Fidell, Senior Research Scholar in Law and Florence Rogatz Visiting Lecturer in Law, Yale Law School.