



**New America's  
Open Technology Institute**

# **Year In Review**

**2017**

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# OTI By the Numbers

# 10k+

TWITTER FOLLOWERS

# 20

OP-EDS

# 300+

MEDIA CITATIONS  
AND SPEAKING  
ENGAGEMENTS

# 1 Billion +

MEASUREMENT LAB TESTS

# 51

BLOG POSTS

# 19

IN-PERSON  
EVENTS HELD AT  
NEW AMERICA

# 200+

TECHCONGRESS  
APPLICANTS



# Letter

## **If last year taught us anything here at OTI, it's this: there's always a path forward.**



OTI Director Kevin Bankson (Photo: New America)

2017 was a year that brought profound challenges to the principles of openness, security, and community that ground OTI's work. The landmark net neutrality and broadband privacy rules that so many had fought so hard to win from the FCC under the last presidential administration were rolled back; the NSA's dangerously expansive internet surveillance powers were renewed without meaningful reforms; and we all learned the dark side of internet openness when faced with the unavoidable fact that the internet—in addition to fostering positive new human connections on a massive scale—has also become a platform for virulent new forms of hate and misinformation that target our most vulnerable communities.

Yet it was also a year of new hopes and new ideas in new places. The public has never been more energized in the fights for net neutrality and online privacy, as the unprecedented number of comments filed in the net neutrality proceeding and

the broad coverage of (and pushback against) the broadband privacy rollback demonstrated. The public debate over the power and responsibility of internet platforms has never been more active, nor important. And as federal policy has stalled or moved backwards, states and cities have joined in the fight to push forward—on net neutrality, on privacy, on reining in overreaching surveillance, and more.

These developments give us at OTI hope—and are impacting our strategic direction. More and more, we are needing to reach outside of the D.C. policy process—to the courts, to cities and communities across America, to the internet companies we both collaborate and clash with—to find a path forward to a more open and secure internet for all communities.

Because there is always a path forward—and always more work to be done. So enjoy this “Year in Review” summarizing some of the high points of 2017, and make sure to check out [www.newamerica.org/oti](http://www.newamerica.org/oti) and follow us on Twitter @oti to keep up with all the work we're doing in 2018.

All the best,

Kevin Bankson

# From the Director

# Openness

## 01. Fighting for the Future of Net Neutrality

## 02. Protecting Broadband Privacy

## 03. Making Internet Measurement Data More Accessible

## 04. Extending Wireless Spectrum to Underserved Rural Communities

The principle of openness has always been important to OTI: supporting access to an open internet, open spectrum, and open data. In 2017, our work shifted from working to expand policies that help all Americans gain access to an open internet to an all-out defensive fight. From Congress' vote in March to undo important broadband privacy protections using the Congressional Review Act, to a full-fledged repeal of net neutrality protections at the FCC in December, to a new proposal to dramatically reduce support for Lifeline, the program that helps to subsidize broadband and phone access for millions of low-income families, important policy safeguards are being wiped away. In response to such threats, OTI is continuing its fight at the federal levels while also expanding its work at the state and local level to better ensure that all communities have access to the open internet, and through that internet have access to job and business opportunities, educational resources, and fresh news and ideas from a broad array of sources.

## Fighting for the Future of Net Neutrality



Sarah Morris and Congressman Mike Doyle (D-Pa.) talk before OTI's event on the repeal of the FCC's net neutrality rules. (Photo: New America)

The FCC repealed its 2015 net neutrality rules in December, the culmination of a years-long battle in which OTI was a key player. Throughout the repeal process, OTI was a steadfast advocate for preserving the net neutrality rules both at the FCC and in Congress. OTI submitted extensive regulatory comments to the FCC, worked with Congressional staff to educate them about the impact of the repeal, and helped to organize a robust coalition of grassroots and business support for the 2015 rules. Over the course of the year, OTI hosted events with FCC Commissioners Mignon Clyburn and Jessica Rosenworcel, Federal Trade Commission (FTC) Commissioner Terrell McSweeney, and Reps. Frank Pallone (D-N.J.) and Mike Doyle (D-Pa.) to talk about the importance of net neutrality.

**What's Next?** OTI is challenging the FCC's decision in Congress, state legislatures, and in court. The FCC's rules were based in a strong legal framework that was affirmed by a federal court—twice. We think the rules were working, and we will fight to restore them.



FTC Commissioner Terrell McSweeney discusses the future of broadband privacy rules at New America. (Photo: New America)

## Protecting Broadband Privacy

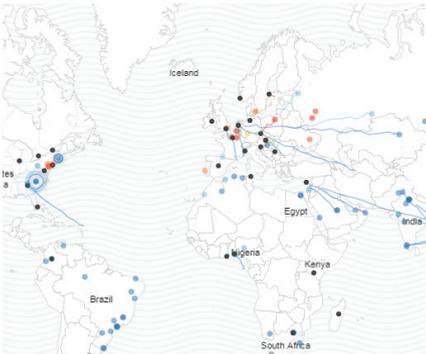
In late 2016, consumers won a big battle in the fight for privacy when the FCC passed strong broadband privacy rules, a battle in which OTI played a critical role. In March 2017, however, Congress repealed those strong broadband privacy protections, which left no cop on the beat to protect consumers' against privacy violations by their internet service providers (ISPs). With no privacy protections on the books, internet service providers get to make their own rules. No one should have to choose between giving up their right to privacy or accessing the internet, but under the new regime that's exactly the choice that people will have to make.

**What's Next?** The broadband privacy fight has moved to the state and local levels. In 2017, OTI published model broadband policy legislation to help states codify comprehensive broadband privacy protections, and is currently working with state and local governments to help them reimplement privacy protections that have been lost at the federal level.

## Making Internet Measurement Data More Accessible

In 2017, Measurement Lab hit the one billion mark: over one billion internet performance measurement tests have been run on Measurement Lab's open-source platform for broadband performance measurement. With over 1 petabyte of data collected and publicly available, Measurement Lab focused on making its open source data more accessible to researchers and interested stakeholders by launching new data visualization tools to allow consumers to select and view data in new ways.

**What's Next?** In 2018, Measurement Lab celebrates its 10th anniversary. It will mark the occasion by launching servers in new locations around the world, making it easier for researchers to run experiments on our infrastructure, and supporting researchers and officials who are interested in learning how to better use Measurement Lab's tools for research, journalism, and policymaking.



A new view of Measurement Lab speed tests around the world at [www.viz.measurementlab.net](http://www.viz.measurementlab.net).

## Extending Wireless Spectrum to Underserved Rural Communities

OTI's Wireless Future Project (WiFu) focuses on supporting and advocating for policies that improve the availability and affordability of wireless broadband. One area of particular focus in 2017 was expanding shared access to underused spectrum to improve high-speed broadband access for rural and underserved communities. WiFu, along with a coalition of service providers, equipment vendors, trade associations, and non-profit public advocacy groups, called on the FCC to move forward on a proposal to open mid-band spectrum to enable fixed wireless providers to improve access in underserved rural communities.

**What's Next?** WiFu will be focused on protecting the Citizens Broadband Radio Service (CBRS), the innovative spectrum-sharing framework that empowers small, competitive providers and new entrants to the wireless space such as sports venues, hotels, and educational institutions, to provide broadband access in targeted areas. The CBRS spectrum sharing framework was originally proposed by WiFu and adopted by the FCC in 2015, but is now under attack by mobile companies that want to make it easier for them to buy up all the spectrum and foreclose competition.



Former U.S. Chief Technology Officer Megan Smith speaks at a Wireless Future event on getting more people online across the globe. (Photo: New America)

# Security

## 01. Getting Companies to Do the Right Thing

## 02. Ranking Companies on How Well They Protect Their Customers' Digital Rights

## 03. Mapping the European Encryption Debate.

## 04. Combatting Warrantless Surveillance Under Section 702

OTI's work to ensure a secure internet, guard communities both on- and off-line against overreaching government surveillance, and protect the privacy and security of all internet users takes many forms. Throughout 2017, OTI worked to reform government programs that permit warrantless surveillance of U.S. citizens, discover what strategies drive internet companies to do the right thing when it comes to their customers' digital rights, and survey the debate over encryption and law enforcement hacking in Europe while preparing for a new round of debate in the United States. Looking forward, OTI will continue to work against government policies that would undermine online privacy and security, while also expanding its efforts to ensure that tech companies are stepping up to defend their users' rights.



Photo: Shutterstock

## Getting Companies to Do the Right Thing

Internet companies play a huge role in protecting their users' privacy and security online. Getting companies to innovate and integrate adequate safeguards into their products, and to develop policies that prioritize consumers, can be a challenge. In 2017, OTI researched how three key privacy and security practices went from a brand new idea to a "must have" over the course of a few years. By mapping the political, technical, and social drivers that led to HTTPS encryption by default, two-factor authentication, and transparency reporting becoming accepted industry best practices, this series of case studies provides a roadmap for how OTI and other advocates can push for adoption of the next great privacy or security feature.

**What's Next?** Building on the lessons learned from its "Do The Right Thing" case studies, OTI will support the new Digital Standard, a consumer-oriented open-source methodology for assessing how well tech products measure up on privacy and security that was recently developed by a coalition of organizations including Consumer Reports and OTI's Ranking Digital Rights project. In addition to educating companies and advocates about the Digital Standard as a tool for improving consumer products, OTI will also expand on its influential Transparency Reporting Toolkit to promote greater transparency and accountability around how internet companies are regulating speech on their platforms, from extremist content to hate speech to fake news.

## Ranking Companies on How Well They Protect Their Customers' Digital Rights



Ranking Digital Rights Director Rebecca MacKinnon was interviewed by NPR's Morning Edition and the Australian Broadcasting Corporation about the 2nd Corporate Accountability index. (Photo: New America)

Ranking Digital Rights, an independent project hosted at OTI, released its second Corporate Accountability Index that ranked 22 internet and telecommunications companies from around the world on their public commitments to their users' freedom of expression and privacy. The report found that, across the board, users aren't given enough information to make informed choices about what these companies' policies are around freedom of expression and privacy. In addition, disclosures by mobile companies were particularly lacking, leaving consumers uninformed about how internet use on mobile phones affects their digital rights.

**What's Next?** The third Corporate Accountability Index will be released in April 2018, assessing the same companies from 2017 on their commitments to freedom of expression and privacy.

## Mapping the European Encryption Debate

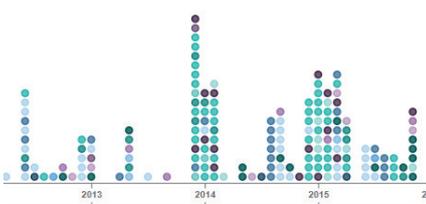


OTI's policy paper series on transatlantic encryption looked at the encryption debates in France, Germany, and the United Kingdom.

Over the past few years, U.S. law enforcement officials have shortsightedly advocated against strong encryption in consumer products, with OTI helping to lead civil society and the internet industry's defense of strong digital security. With a temporary lull in the encryption fight in the U.S., OTI shifted its focus this past year to similar debates happening across the ocean in Europe. OTI released research papers on the state of the encryption debates in the United Kingdom, France, and Germany, looking at the history of encryption policy and law enforcement hacking in each country, and extracting lessons that could be of use to advocates in the United States. Supported by the research done for this project, OTI Director Kevin Bankston debated the encryption issue with U.K. Home Secretary Amber Rudd at a New America event.

**What's Next?** The encryption debate (still) isn't going away. As the current administration ramps up its talking points on encryption and the threat of new legislation grows, OTI will continue to be a leader in combatting any wrong-headed "backdoor" proposals that would force companies to weaken the security of their encrypted products.

## Combatting Warrantless Surveillance Under Section 702



A screenshot of the interactive database of public 702 violations.

The debate over reauthorizing and reforming Section 702 of the Foreign Intelligence Surveillance Act took center stage in 2017. Section 702 is the surveillance law under which the NSA targets foreigners abroad, but also "incidentally" collects massive amounts of Americans' communications. The government claims the authority to warrantlessly search through all of that data for any criminal, national security, or foreign intelligence investigation. OTI spent 2017 pushing for significant reform of Section 702 to protect internet users against such warrantless surveillance, and in the process put together a comprehensive database tracking the many publicly available Section 702 compliance violations.

**What's Next?** Despite the best efforts of OTI and a broad coalition of reformers, Congress approved a reauthorization of Section 702 at the end of 2017. Our focus now will be on ensuring vigorous oversight of the government's spying authorities, while preparing for the next big fight over the reauthorization of another major surveillance statute, the USA FREEDOM Act, in the summer of 2019.

# Community

## 01. Supporting Local Broadband in San Francisco

## 02. Measuring Broadband in Alexandria City Schools

## 03. Demanding Transparency and Accountability Around New Policing Technologies

## 04. Building Technology Expertise in Congress

Ensuring that all communities have equitable access to digital technology and its benefits is a crucial component of OTI's mission, the key word being "equitable": we are dedicated to promoting social justice through technology, and defending the cause of social justice against technology-based threats. Whether promoting municipal broadband projects and supporting internet deployment in public schools and libraries, or seeking to ensure that communities can hold police accountable when they abuse new policing technologies, OTI works both to help educate communities about technologies that could support their goals, and to develop and test new technologies and policies on the ground to address challenges within communities.

## Supporting Local Broadband in San Francisco



Photo: Davide Ragusa on Unsplash

Especially now that the big ISPs have more freedom to interfere with and spy on our internet traffic after the rollbacks of federal net neutrality and broadband privacy rules, it's become all the more important for cities to step up and ensure that all of their residents have access to a fast, affordable, secure, and content-neutral broadband network. That's why OTI served last year on San Francisco's Blue Ribbon Panel on Municipal Fiber, working with city officials and fellow experts to develop a broad range of recommendations on how the city should handle issues of net neutrality, privacy, and security on its planned municipal network.

**What's Next?** OTI will continue to support San Francisco and other municipalities as they look for new ways to make broadband internet accessible for all of their citizens, while also developing new opportunities to work with local governments on other tech issues relevant to our social justice mission. With federal policymaking on technology moving backwards, it's all the more important now to help our cities and states push forward.

## Measuring Broadband in Alexandria City Schools



Photo: Shutterstock

Internet access is an important tool to expose students to new ideas and resources beyond their school walls. However, in many school districts around the country, administrators don't have enough information about how their broadband network is functioning to understand how to improve it, or how its performance is affecting students. To address that gap, OTI partnered with the Education Policy Program at New America to develop a new tool to help Alexandria, Virginia public schools assess the performance of their network using the open-source Measurement Lab platform and provided suggestions for how to determine the impact of broadband use in the classroom.

**What's Next?** OTI will continue to improve its broadband measurement device, and will work with additional partners to help assess and improve broadband performance in public spaces.

## Demanding Transparency and Accountability Around New Policing Technologies



Photo: Robyn Greene

The unchecked use of powerful new policing technologies—especially when they are disproportionately deployed against communities of color—has long been an important focus for OTI, as demonstrated by our work in years past challenging the Baltimore Police Department's warrantless and racially-biased use of so-called "Stingray" cell phone tracking devices. Moving from legal to technical interventions, OTI used the opportunity of the Science March in D.C. in April 2017 to test our own science project: a suite of tools to help detect Stingrays deployed to monitor protesters. The results were promising, but surveillance detection in such an environment is a tough technical challenge that will require much more work from a community of researchers.

**What's Next?** OTI will work to convene and collaborate with the growing community of surveillance-detection researchers, while working to promote new accountability mechanisms at the municipal government level to provide greater transparency and community control around the full range of new policing tech.

## Building Technology Expertise in Congress



Photo: Shutterstock

Congress is in many ways its own community, and one in need of greater tech expertise. TechCongress, an initiative incubated at OTI, was founded to address that technology knowledge deficit. Through its Congressional Innovation Fellowship program, TechCongress has created a new community of technologists within Congress, with the goal of developing a consistent pipeline of tech talent to ensure that technology policy is informed by experts in computer science, engineering and other technical subjects. In 2017, TechCongress selected four highly-qualified candidates from more than 200 applicants for its second class of fellows. After being placed with key Congressional offices, the fellows did groundbreaking work on issues where Congress is especially in need of strong tech insight, such as cybersecurity, surveillance, and autonomous vehicle policy.

**What's Next?** In 2018, TechCongress will place its largest and most diverse class of fellows in Congress. In addition, two of TechCongress' fellows have been offered permanent positions with Members of the U.S. Senate, one more step toward fulfilling the project's mission of building a pipeline of technology expertise in Congress.

**The Open Technology Institute and its projects rely on the generous support of a diverse base of donors to advance its mission to ensure that every community has equitable access to digital technology and its benefits. The following list reflects all funding received or active between January 1 and December 31, 2017.**

Aphorism Foundation

Apple

Berkman Klein Center for the Internet & Society at Harvard University

Bill and Melinda Gates Foundation

Broadcom Limited

Brooklyn Public Library

Charter Communications

Code for America Labs

Comcast

Consumers Union

Craig Newmark Philanthropies

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Facebook

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Open Society Foundations

Google

John D. and Catherine T. MacArthur Foundation

John S. and James L. Knight Foundation

Media Democracy Fund

Microsoft Corporation

Mozilla Foundation

Neustar

Omidyar Network

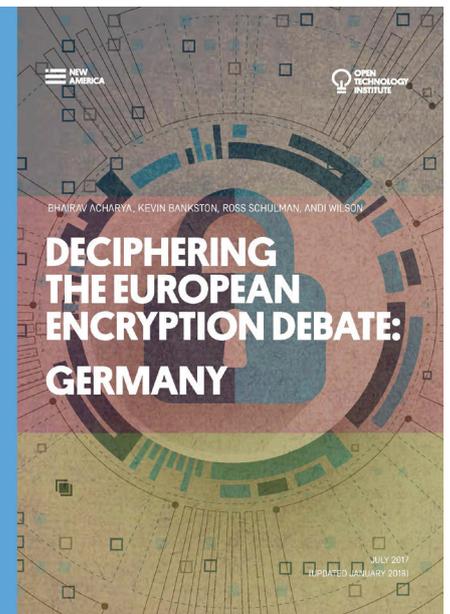
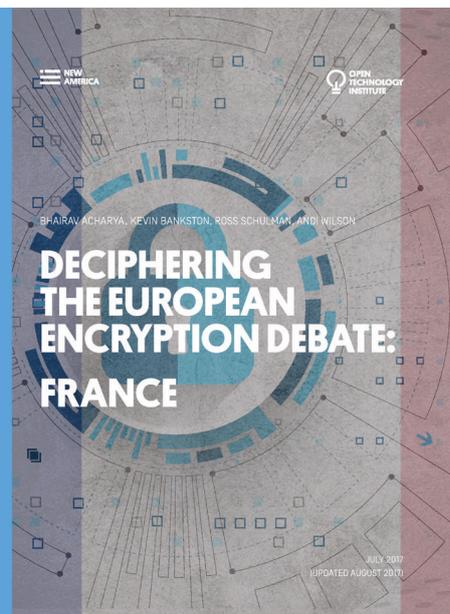
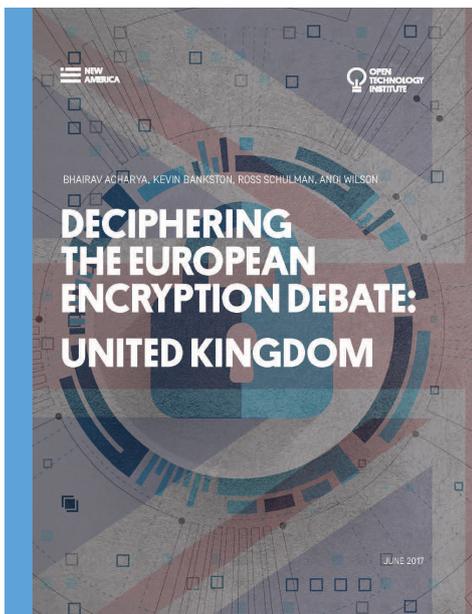
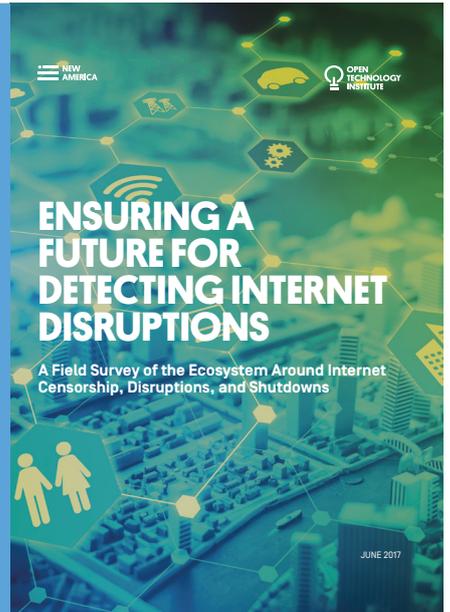
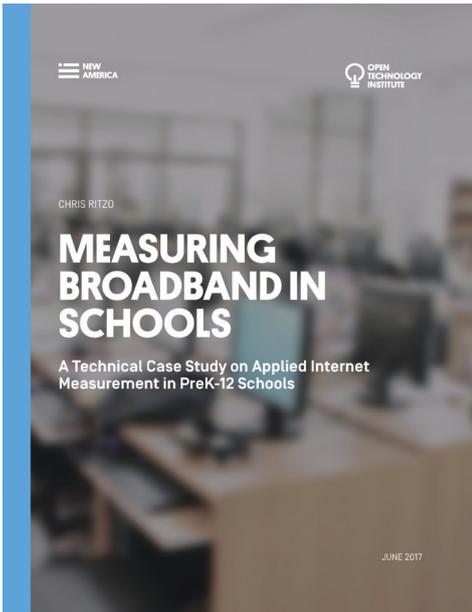
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The William and Flora Hewlett Foundation

U.S. Department of State Bureau of Democracy, Human Rights, and Labor

Voqal Fund







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