



# Comcast Innovation Fund

**2019 ANNUAL REPORT**

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Summary of the Fund's Operations for the 2019 Operating Year

# Comcast Innovation Fund at-a-glance:

## 2019 Executive Summary

### BACKGROUND

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We know that innovation defines the future of our company, our industry and our connected world. Comcast is committed to fostering a culture of innovation that permeates every level of our business, and we've witnessed firsthand how some of the greatest breakthroughs occur when you simply give smart people the time and resources they need to innovate.

The Comcast Innovation Fund was established to support researchers, technologists, and academics who are committed to the betterment of the Internet and the global technology and policy community.

Grants range from \$3,000 for smaller projects, up to more than \$100,000 for medium-term research efforts. A cross-functional team of technology and business leaders within Comcast reviews grant applications and directs funding where it is most needed and can have the greatest impact.

In 2019, we funded 17 grants from a large pool of worthwhile applications. Since the Fund's inception in 2013, Comcast has supported 145 projects from researchers in 14 countries around the world. We've been inspired by the results of this research and are committed to continuing the program into the future.

### FOCUS ON IMPACT

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Through the innovation fund, we focus on small and mid-sized projects that may slip between the cracks of traditional research funding sources. The multidisciplinary team of subject matter experts that review applications look for research projects that move technology forward by tackling difficult problems or pioneering new approaches. In 2019, particular weight was given to projects that:

- Address cybersecurity, safety, and privacy threats that face our customers and our services.
- Create or advance important open-source projects.
- Advance the development and adoption of emerging open Internet standards, as well as the transition from legacy to IP technologies.
- Improve the accessibility, operational stability, security, growth, and impact of the Internet.
- Improve the technical community's understanding of the Internet, transparency, and the customer experience via better measurement technologies.
- Advance and improve the customer experience of our services, and contribute to the creation of better products.





## GRANT TYPES

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We fund research grants, open source development grants, or a combination of the two.

- **Research Grants** – Unrestricted grants supporting research in a range of Internet-related fields that support researchers, technologists, and academics. These grants support researchers and targeted research projects, usually at colleges and universities.
- **Open Source Development Grants** – These grants are intended to support the creation and/or advancement of open source projects of interest to Comcast or of benefit to the Internet and broadband industries, including those that may not have immediate business value but that carry the potential for important technological development.

## 2019 GRANTS BY COUNTRY

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-  Australia **1**
-  Canada **1**
-  Netherlands **1**
-  United Kingdom **3**
-  USA **12**

## HOW TO APPLY

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We accept proposals throughout the year until our annual funding has been fully committed. To apply, visit the Innovation Fund web site at <https://innovationfund.comcast.com/>. For 2020, we are continuing to consider all application areas but are particularly interested in applications related to the issues of centralization and re-decentralization.



**About Comcast:** Comcast Corporation (Nasdaq: CMCSA) is a global media and technology company with three primary businesses: Comcast Cable, NBCUniversal, and Sky. Comcast Cable is one of the United States' largest high-speed internet, video, and phone providers to residential customers under the Xfinity brand, and also provides these services to businesses. It also provides wireless and security and automation services to residential customers under the Xfinity brand. NBCUniversal is global and operates news, entertainment and sports cable networks, the NBC and Telemundo broadcast networks, television production operations, television station groups, Universal Pictures, and Universal Parks and Resorts. Sky is one of Europe's leading media and entertainment companies, connecting customers to a broad range of video content through its pay television services. It also provides communications services, including residential high-speed internet, phone, and wireless services. Sky operates the Sky News broadcast network and sports and entertainment networks, produces original content, and has exclusive content rights. Visit [www.comcastcorporation.com](http://www.comcastcorporation.com) for more information.

# Comcast Innovation Fund Annual Report 2019

## Individual Grant Listing



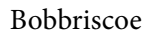
### Asia Pacific Network Information Centre (APNIC)

Measurement of Resolver Centrality in the DNS



### Sinodun Internet Technologies

Windows GUI Client for the Stubby DNS Resolver



### Bobbriscoe.net

Low Latency Low Loss Scalable throughput (L4S): The Disappearing Internet



### Software Freedom Conservancy

Support for Diversity Scholarships for Open Source Projects



### Brigham Young University

A Study of the Pervasiveness and Quality of DNS Cookie Deployment



### NLnet Labs

DNS-Over-HTTPS (DoH) for Open Source Web Servers



### Center for Applied Internet Data Analysis (CAIDA) at the University of California San Diego

Evaluating Web-Based Speed Tests Across High-Speed Access Links



### Thinking Cat Enterprises

Platform for Open Source Software Internet Evolution (POSSIE)



### International Computer Science Institute (ICSI) at the University of California Berkeley

Reliable Low-Latency Delivery of Multimedia Based on ROUTE



### University of Colorado

Prospects for Competition in the Provision of Internet Access Services over Broadband Local Access Networks



### Massachusetts Institute of Technology (MIT)

Speed Measurement Research



### University of Pennsylvania

1 World Connected



### Princeton University

Learning Caching Algorithms for Content Delivery Networks (CDNs)



### US Ignite

Philadelphia as a Smart Gigabit Community



### Sandelman Software Works

Ongoing support for TCPDUMP and LIBPCAP



### Virginia Tech

Incrementally Tailoring a Better Cyber Risk Score



### Sinodun Internet Technologies

dns-stats C-DNS Compactor Enhancements