

# Censored Planet: University of Michigan research finds worldwide increase in internet censorship

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A group of researchers from the University of Michigan (UM) have published a global database of instances of internet censorship that shows an “extremely aggressive” growth of online interference on a world scale over a recent 20-month period.

The team used an automated global censorship tracking platform called Censored Planet, which was developed in 2018 by UM assistant professor of electrical engineering and computer science Roya Ensafi. Between August 2018 and April 2020, the team collected 21.8 billion measurements of online censorship from 221 countries.

Among the key findings of the research—presented at the Association of Computer Machinery (ACM) Conference on Computer and Communications Security on November 10—was that censorship is increasing in 103 of the countries that were studied, including Norway, Japan, Italy, Israel and Poland.

A press release issued by the UM on November 17 described the findings contained in the team’s research paper as “The largest collection of public internet censorship data ever compiled,” which “shows that even citizens of the world’s freest countries are not safe from internet censorship.” It also showed that among the countries where censorship is expanding are those “rated as some of the freest in the world by advocacy group Freedom House.”

The research reveals that, for the most part, the increasing internet censorship is “driven by organizations or internet service providers filtering content” and not “nationwide censorship policies such as those in China,” where online content is highly restricted by direct state intervention.

The UM press release says Assistant Professor Ensafi noted that, while the “uptick in blocking activity” in the US was small, “the groundwork for such blocking has been put in place in the United States.”

Ensafi explained further: “When the United States repealed net neutrality, they created an environment in which it would be easy, from a technical standpoint, for

internet service providers to interfere with or block internet traffic.” She added, “The architecture for greater censorship is already in place and we should all be concerned about heading down a slippery slope.”

The five-member US Federal Communications Commission (FCC) voted 3-2 on December 14, 2017 in favor of ending net neutrality, and the new policy took effect on June 11, 2018, approximately two months before the Censored Planet data collection began. Net neutrality is the principle that internet service providers (ISPs)—the companies that own the hardware infrastructure connecting consumers to the internet in the form of wired and wireless services, routers, switches and servers—must treat all content on their systems equally.

While the proponents of abolishing net neutrality argued that the change was necessary to “modernize” FCC policies and remove anti-competitive government intrusion into the corporate internet marketplace, the UM research shows that the logic of capitalist private property and nation-state-based interests in the global information infrastructure leads inexorably to undemocratic and repressive restrictions on public access to online content in a range of forms.

As the *World Socialist Web Site* has reported, the tech monopolies, including Google, Facebook and Twitter, have been engaged in censorship both within the US and internationally by targeting left-wing, anti-war and progressive websites and publishers with various types of internet content blocking, throttling and manipulation.

The WWSW itself and its affiliated organizations have been the target of this increasing censorship in the form of suppression of search results by Google, banning and de-whitelisting by Reddit, account suspension by Twitter and event blocking by Facebook.

Another of the UM researchers, Ram Sundara Raman, a PhD candidate in computer science and engineering, said, “What we see from our study is that no country is completely free. Today, many countries start with legislation

that compels internet service providers to block something that's obviously bad like child sex abuse material. But once that blocking infrastructure is in place, governments can block any websites they choose, and it's usually a very opaque process. That's why censorship measurement is crucial, particularly continuous measurements that show trends over time."

In Norway, for example, laws were passed in early 2018 that require internet service providers to block some gambling and pornographic content. The Censored Planet data shows evidence of "network inconsistencies across a broader range of content, including human rights websites like Human Rights Watch and online dating sites like match.com" in Norway.

The Censored Planet automated monitoring platform is a novel approach to tracking online censorship. It uses public internet servers around the globe as data gathering nodes that monitor and report when access to websites is being blocked. It also uses artificial intelligence algorithms to filter the data, remove noise and recognize trends.

Previous censorship tracking methods have relied upon human activists to gather data manually. As the UM press release explains, "Manual monitoring can be dangerous for volunteers, who may face reprisals from governments. The limited scope of these approaches also means that efforts are often focused on countries already known for censorship, enabling nations that are perceived as freer to fly under the radar."

The #KeepItOn campaign of the digital rights organization AccessNow, for example, tracks incidents of internet shutdowns annually in countries around the world. It uses some technical measurement tools and also relies upon "news reports and personal accounts" through a coalition of 210 organizations from 75 countries. The organization published its last report in 2019, which noted, "The constraints of our methodology mean that there may be cases of internet shutdowns that have gone unnoticed or unreported, and numbers are likely to change if and when new information becomes available."

In describing their "longitudinal censorship observatory," the UM researchers explain that they used four remote measurement techniques (Augur, Satellite/Iris, Quack, and Hyperquack) on six internet protocols to "detect 15 prominent censorship events, two-thirds of which have not been reported previously." The reference to longitudinal measurement means that data points are gathered multiple times over an extended period of time.

Among the censorship methods that Censored Planet detects are internet shutdowns, Domain Name Server (DNS) manipulation, Transmission Control Protocol/Internet Protocol (TCP/IP) blocking and Hypertext Transfer Protocol

(HTTP) layer interference. Among the countries that were studied for specific censorship events by Censored Planet (in addition to the countries mentioned above) were Egypt, Iran, Sri Lanka, Venezuela, Zimbabwe, Ecuador, India, Sudan and Cameroon.

The instance of censorship in Sri Lanka, following a series of bombings on April 21, 2019 that killed more than 250 people, highlights the power of Censored Planet platform. To previous reports of social media censorship, the study says, "We observed 22 domains (compared to 7 reported previously) being blocked, including domains like twitter.com that were not reported. Five out of these 22 domains were only from the Alexa test list, showing that variety in test lists is important. After the initial peak, HTTPS censorship remained unusually high through April, and then spiked again in the week of May 12, 2019. This contrasts with most reports claiming that the social media ban was lifted by May 1st."

It is significant that amid the near-continuous reporting in the corporate media of the false allegations from right-wing organizations and individuals that conservatives are being singled out for online censorship, including US President Trump's complaints regarding the imposition of fact-checking labels on his Twitter account, not one of the major news organizations has reported on the Censored Planet study.

Along with publishing their methodology and disclosing the tools they are using for data collection, the UM researchers are making their data set available for further analysis by others. As Ensafi explained, "We hope that the continued publication of Censored Planet data will enable researchers to continuously monitor the deployment of network interference technologies, track policy changes in censoring nations, and better understand the targets of interference. While Censored Planet does not attribute censorship to a particular entity, we hope that the massive data we've collected can help political and legal scholars determine intent."



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