

2023 Special 301 Out-of-Cycle Review of Notorious Markets: Request for Comments (Docket No. USTR-2023-0009)

October 6, 2023

The Association of American Publishers (AAP) provides this submission in response to the request for comments in the 2023 Special 301 Out-of-Cycle Review of Notorious Markets by the Office of the U.S. Trade Representative (USTR).

The Association of American Publishers (AAP) is the national trade association of the U.S. book and journal publishing industry. AAP represents the leading book, journal, and education publishers in the United States on matters of law and policy, advocating for outcomes that incentivize the publication of creative expression, professional content, and learning solutions. The U.S. publishing industry supports an extensive network of American businesses and thousands of jobs, with revenue of \$28.10 billion for 2022.¹ The publishing industry is also an integral part of the broader U.S. copyright industries, which collectively added more than \$1.8 trillion in annual value to U.S. gross domestic product in 2021.² Beyond these important economic contributions, an independent and thriving publishing industry supports the nation's political, intellectual, and cultural systems.

As called for in the request for comments, this submission identifies online sites that traffic in infringing copies of books and journal articles, to the detriment of U.S. publishers and the authors, writers, editors, illustrators, researchers, and scholars whose creative works and scholarship publishers curate and bring to market.

The issue focus for the 2023 Notorious Markets List examines the potential health and safety risks posed by counterfeit goods. However, similar risks to health and safety may arise when researchers, and consumers, rely on infringing articles sourced from piracy sites. Publishers of scientific, technical and medical articles that report on research in these fields not only provide the infrastructure for the peer review process prior to the first publication of research outcomes, they also maintain the integrity of the scientific record by publishing the Version of Record (VoR) of the articles reporting on scientific, technical, and medical research. The VoR is the final, publisher-maintained article, continually updated and archived in consultation with the author. Unauthorized, infringing copies uploaded to piracy sites may be subject to post-publication correction, modification, or retraction, which could potentially create serious and cascading scientific or medical errors if relied upon for further research or to train Al systems. ³

We appreciate the efforts of USTR and the inter-agency subcommittee to encourage U.S. trading partners to adopt measures to address commercial piracy and counterfeiting, whether occurring online or in physical markets.

Online platforms make available, without permission from or compensation to publishers, unauthorized, infringing copies of books (consumer trade, professional books, and textbooks) and journal articles. These platforms include online distribution hubs ("cyber lockers"), auction sites, P2P technologies, apps, ecommerce platforms or marketplaces, social media platforms, and other online services that facilitate access to pirated copies of books and journal articles. Unfortunately, the infringing activity occurring on some of these platforms is supported, sometimes

¹ AAP StatShot Annual Report: Publishing Revenues Totaled \$28.10 Billion for 2022 - AAP (publishers.org).

² Copyright Industries in the U.S. Economy: The 2022 Report, by Robert Stoner and Jéssica Dutra of Economists Incorporated, prepared for the International Intellectual Property Alliance (IIPA), (December 2022). https://www.iipa.org/files/uploads/2022/12/IIPA-Report-2022_Interactive_12-12-2022-1.pdf.

³ See https://www.washingtonpost.com/technology/interactive/2023/ai-chatbot-learning/, and https://torrentfreak.com/anti-piracy-group-takes-prominent-ai-training-dataset-books3-offline-230816/.

unwittingly, by third-party service providers such as hosting providers, payment processing services, advertising networks, domain name registrars, and content delivery networks (CDN). While some platforms assist rights holders in mitigating the availability of infringing content, many continue to hamper the ability of rights holders to take effective action against the infringing activity occurring on their sites or through their services.

Below, AAP identifies sites and services that provide or facilitate access to significant volumes of unauthorized copies of books and journal articles, infringing on the intellectual property rights of authors and publishers. Though some sites respond to take down notifications, removing or disabling access to infringing content, the problem of the same infringing content being re-uploaded to the site remains persistent. The most egregious sites routinely ignore take down notifications from publishers regarding infringing material available on its site.

Notorious Online Sites and Marketplaces

Afkebooks.com — The site appears dedicated to selling unauthorized PDF copies of textbooks in the sciences, from nursing and obstetrics to psychology and psychiatry. The site indicates it first launched in 2013 and appears to be operated from Iran. While some AAP members have sent takedown notifications to the site, it remains non-compliant and continues to provide infringing PDF copies of medical textbooks. The site is hosted by IWS Networks (https://www.iws.co), which remains unresponsive to rights holder takedown notifications. The site averages 148,000 visits a month, with U.S. traffic at 25% according to Similarweb.com.

Alibaba (Taobao and Goofish) — Counterfeit books, infringing PDF copies of books, and leaked exam papers remain readily available on the site. From June-July 2023, an AAP member company reports identifying 356 infringing listings of counterfeit books and infringing PDF copies, some of which indicated sales of over 1000 copies. With the current restructuring at Alibaba, there is concern that the platform no longer has the capacity to efficiently takedown posts of infringing content. Reporting infringing content via the Alibaba IP Portal is proving challenging as rights holders are required to detail specific piracy indicators, which is difficult as infringers deliberately keep their listings vague to avoid enforcement.

Anna's Archive (.org/.gs) — is described as a metasearch engine and claims to provide access to the pirated copies of books and journal articles available on Sci-Hub, Library Genesis, Z-Library, and other piracy sites. The primary websites are annas-archive.org and annas-archive.gs, along with a blog, annas-blog.org, and software webpage on GitLab, annas-software.org. The site's creators/operators claim that in addition to mirroring the infringing repositories of books and journal articles on notorious sites (Sci-Hub, Libgen, and Z-Library), they also "scrape" "closed" and protected" sites "in order to 'liberate' their books." The operators sought to raise \$20,000 to cover operational costs as well as ongoing and future projects, accepting donations in cryptocurrencies (Bitcoin, Ethereum, Monero, Solana) as well as PayPal, Alipay (China), and Pix (Brazil). An analysis of their cryptocurrency wallets revealed a total of \$29,596.21 in funds received as of July 2023.

Annas-archive.org is hosted with Epinatura LLC (using Cloudflare) in Ukraine, while annas-archive.gs is hosted with Alexhost SRL (using Cloudflare) in Moldova. In addition, Anna's Archive is using the domain registration services provided by Sarek Oy and "Njalla" (1337 Services) to mask its identity. Annas-archive.org typically racks up to 12M total monthly visits, with U.S. traffic accounting for 24% of global traffic, according to SimilarWeb.com. Annas-archive.gs attracts 551.6K total monthly visits, with U.S. traffic at 8.84%.

Avaxhome — is a piracy network, operated from Europe, that provides unauthorized access to a significant volume of infringing eBook content. Sites in the Avaxhome network also provide links to unauthorized music, TV series, anime, video, software, magazines (adult content), comics, newspapers, games, graphics, vinyl & HR, audiobooks, and sheet music — the nature and scale of infringing activity extending across multiple industries.

Several sites in the Avaxhome network (*avxhome.se*, *avxhome.unblocked.ist*, *avxhome.in*, *avaxhome.unblocker.xyz*, *avxhm.se*) were the subject of a site-blocking order in the United Kingdom.⁴

The Avaxhome group of sites currently use Bitcoin (BTC) to receive donations via a rogue third-party service, freewallet.org⁵. The piracy sites that are part of the network also link to premium accounts on cyberlocker hosts (e.g., icerbox.com), which increase the download speed. Twenty-seven (27) Avaxhome feeder sites⁶ were identified as linking to infringing copies of eBooks. The sites are hosted with multiple hosting providers in Europe, which continuously change due to the enforcement efforts of publishers. The Avaxhome piracy network attracts over two million cumulative total visits. The U.S. appears to be among the top countries with respect to user traffic.

Libgen.rs (also *libgen.is*; *libgen.st*; *library.lol*; *library.bz*; *libgen.fun* – *for IPFS content*) and its multiple mirror sites (collectively the **Library Genesis Project**) — is a network of infringing locker sites, believed to be operated from Russia. The infringing network hosts a vast repository of infringing content — from consumer trade books, scientific, technical, and medical (STM) journal articles, technological standards, magazine articles, comic books to scholarly materials. It remains one of the most problematic piracy sites plaguing the trade, education, and STM publishing sectors. Libgen boasts that it hosts 2.4 million non-fiction books, 80 million science magazine issues, 2.2 million fiction books, 2 million comic strips, and magazine articles,7 which content is also being made available through multiple mirror sites and IPFS public gateways.

Libgen.rs' current Similarweb global ranking is 4,594 with an average of 10M million site visits a month, with the U.S. having the highest number of site visitors at 27.74%. Over the years, several mirrors in the network have been subject to lawsuits or applications for site blocking orders. In 2015, publishers obtained an injunction under Section 97A of the UK Copyright, Designs and Patent Act (1988) to compel UK service providers to block access to the Libgen-related sites, and the site continues to be subject of a blocking order. The site and some of its mirrors are also subject to blocking orders in Belgium, Denmark, France, Germany, Italy, Portugal, Russia, Spain, and Sweden. In November 2022, U.S. law enforcement seized over two hundred Z-library mirrors.8 Z-Library is among the more notoriously known Libgen mirrors, though its reach had grown dramatically, along with the volume of infringing books in its repository. Several more Z-Library domains were seized in May 2023.9 In September 2023, four (4) education publishers sued Libgen and several of its mirrors¹⁰ for "extensive violations of federal copyright law.¹¹

A recent examination of the cryptocurrency wallets and donation records revealed that Library Genesis has received a total of \$265K in funds. Furthermore, it became known that the founder of Library Genesis donated \$10K to the piracy site *Anna's Archive* in October 2022.

Notorious piracy networks such as Libgen and Z-Library are already exploiting public gateways within the InterPlanetary File System (such as *ipfs.io*; *gateway.pinata.cloud*; *dweb.link*; *cloudflare-ipfs.com*; *crustwebsites.net*; *ipfs.slang.cx*) to host and distribute copyright protected content in a decentralized manner. Publishers are

⁴ https://www.blocked.org.uk/legal-blocks/order/22

⁵ https://freewallet.org/id/888870a3/btc

⁶ A feeder site identifies download links to copyrighted content hosted elsewhere e.g., cyberlocker hosts.

⁷ See https://iteducationcourse.com/how-to-download-from-libgen/.

⁸ See Eastern District of New York | Two Russian Nationals Charged with Running Massive E-Book Piracy Website | United States Department of Justice; also FBI takeover Zlibrary BookTok Erupted - The Washington Post

⁹ See U.S. Hits Z-Library with New Domain Name Seizures * TorrentFreak.

¹⁰ In addition to Library Genesis, the following mirror sites were also included in the suit: *bookwarrior, cdn1.booksdl.org, jlibgen.tk, libgen.ee, libgen.fun, libgen.gs, libgen.is, libgen.li, libgen.pm, libgen.rocks libgen.rs, libgen.space, libgen.st, libgen.su, library.lol, and llhlf.com.*

¹¹ See Textbook publishers sue 'shadow library' Library Genesis over pirated books I Reuters.

increasingly concerned with the scale at which public gateways are facilitating piracy. Though intended to provide a resilient and more secure infrastructure, the platform is unfortunately being exploited by networks like Libgen to facilitate large scale piracy. While IPFS gateways are responsive to individual reports of infringement, preventing notorious piracy networks, such as Libgen, from exploiting their services would greatly improve enforcement efforts.

Nitroflare.com — provides free file hosting and sharing services. Nitroflare's current Similarweb ranking is 8,794. U.S. traffic accounts for approximately 11% of the visits and the service has an average of 8.4M visits per month globally. The domain was registered in 2014, and its current hosting provider is GLOBALLAYER, NL via Cloudflare.

Rapidgator.net — provides free file hosting and sharing services. It advertises features such as "extra fast downloads" and "unlimited file storage." The site also advertises an affiliate program through which users earn money for uploading files. Rapidgator's current Similarweb ranking is 1,513 with an average of 38M visits a month. The service is most popular in Japan (35%), with the highest combination of visitors and page views for the site, followed by the U.S. (9%).

Sci-hub.se (also sci-hub.ru; sci-hub.st), first encountered in May 2013 (as Sci-Hub.org) — continues its flagrantly infringing conduct, facilitating unauthorized access to over 88.34 million journal articles and academic papers (at least 90% of all toll access journal articles published). Sci-Hub obtains infringing copies of publishers' copyright protected works by illegally accessing the computer networks of universities, using hijacked proxy credentials (through which university personnel and students remotely access the university's intranet systems and databases). Once the operator gains access to the database, it harvests numerous articles and stores the purloined articles on its own servers, while also posting these articles to other piracy sites, including Libgen and Z-Library mirrors. 12 The site and its operator are in Russia and continue to operate with impunity. Though the site operator claims to have no knowledge of illegal tactics used to deceive legitimate subscribers into disclosing their personal credentials, there have been reported incidences of students and academic personnel, at university institutions whose systems have been compromised, being subjected to phishing schemes. According to the Scholarly Networks Security Initiative, Sci-Hub has compromised the networks and data of "over 400 universities and institutions across 41 countries."13 The threat is not just to the security of university networks, or the personal data of personnel and students. As noted above, the site also poses potential damage to the research process, as the site operators have no incentive to ensure the accuracy of the articles posted to the site, which may have been subject to correction, modification, or retraction. The site continues to solicit donations from users, accepting a variety of cryptocurrencies. 14

ISPs in Belgium, Denmark, France, Germany, Italy, Portugal, Russia, Spain, and Sweden are required to block access to the site, per injunctions secured by a group of journal publishers. The site remains the subject of a site blocking application in India, which unfortunately remains unresolved. AAP member publishers, ACS and Elsevier, secured default judgments against Sci-Hub and its operator in 2017 and 2015 in the U.S., resulting in injunctions requiring U.S. domain name registries to suspend the site's U.S. administered domains.

hub.se/donate#:~:text=Since%20the%20very%20beginning%20Sci,running%20by%20donating%20small%20sums.

¹² See Petition launched for Z-Library restoration; Sci-Hub founder expresses support - The Hindu.

¹³ See https://www.snsi.info.

¹⁴ See https://sci-

¹⁵ On December 24, 2020, the site operator committed to the court (essentially enjoining itself) that there would be no uploads of new articles until the court rules upon the application. https://images.assettype.com/barandbench/2020-12/9d2b7dc9-c33a-43c2-af0d-2d4fd03a1f52/Elsevier_Ltd_vs_Alexandra_Elbakyan.pdf. However, on September 5, 2021, the operator uploaded 2,337,229 new articles to the site.

Despite already being an adjudged piracy site, Sci-Hub's operations remain active, in large part due to the difficulty of addressing online entities located in non-IP friendly jurisdictions. It is telling that the site's illegal activity has been the subject of warnings issued by law enforcement agencies.¹⁶

Shopee — an online (e-commerce) marketplace popular in several markets in Southeast Asia (Indonesia, Malaysia, the Philippines, Singapore, Thailand, Taiwan, and Vietnam) and also operates in Brazil, Chile, Colombia, and Mexico. The site provides third-party sellers the platform through which to post listings of products they sell, from clothing to electronics, as well as counterfeit and pirated copies of academic textbooks and English-language teaching materials.

Unfortunately, like other ecommerce marketplaces, verification of the third-party seller information is inadequate, and sellers already subject of an infringement report can continue to sell counterfeit products, including books, and pirated copies of ebooks on the platform. While reporting mechanisms are available, the process is cumbersome and though links to infringing product(s) subject of rights holder notifications are removed, there appear to be no actions taken against the sellers subject of the notifications. These sellers post new links to the same infringing ebooks or counterfeit books that have already been the subject of prior notifications.

Uploadgig.com — provides free file hosting and sharing services. The service offers faster downloads with "premium" accounts and promotes a "partner" program where users can earn money by importing and sharing files. The services receive approximately 2.6M visitors a month and is most popular in the Japan (15.9%) and the U.S. (11.48%). The domain was registered in 2015 and its current hosting provider is LidVPS (IP:45.133250.2).

Other Services

Lunwenxiazai.com — This site, also known as "Paper Downloads," stands out among the numerous sites (some fifty such sites) in China that engage in the sale of illegally sourced access credentials (i.e., usernames and passwords) to university portals and publisher databases. Credential harvesting¹⁷ is typically done through unauthorized means such as hacking, phishing, or other cyber intrusion tactics (but also directly solicited from users with institutional accounts). The site averages some 152,000 visits per month and gets approximately 25% of its traffic from the U.S.

Read Online Sites — are platforms that provide the text of an ebook to be viewed or "read" online. The number of "read online" sites is increasing, supported by ads served up by Google Ads, Microsoft Advertising, Steepto, and MGID. As "read online" sites are optimized to allow for "viewing" or "reading" on mobile devices, these sites reach more consumers than sites optimized for desktop or laptop devices given the ubiquity of mobile devices through which infringing works can be accessed without having to download the work. This type of online book piracy is particularly problematic as it significantly increases enforcement costs for publishers. In the "read online" scenario, the infringing content is displayed across several linked pages on a website. For the typical download site, one takedown notification will address a complete work. In contrast, for a "read online" site, a takedown notification must be sent for every online page (i.e., every URL) associated with a single title. As such, hundreds of takedown notifications will be necessary to remove access to a single work, and thus, thousands of notifications by a publisher

¹⁶ See Police warn students and universities of accessing an illegal website to download published scientific papers | City of London Police.

¹⁷ Piracy sites have engaged in efforts to obtain login credentials directly from institutional users. See https://www.ic3.gov/Media/News/2022/220526.pdf, where the FBI warned U.S. colleges and universities that academic login credentials to their institutions were readily available on the Dark Web. "Paper Downloads" is just one among many sites that traffic in illegally obtained access credentials.

for the many copyrighted works they protect. Examples of such sites include *full-english-books.net* (IP: 37.1.203.18 ISP: iroko.net) and *novel22.net* (IP: 94.242.50.39 ISP: veesp.com). Others include: *graycity.net* (registered 2018, using Google ad choices to serve ads, hosted by Shinkiru Technology Snd Bhd – SHINJIRU-MY), which appears to be part of a group of related read-online sites, *bookfrom.net*; *archive.bookfrom.net*; *readfrom.net*; *efrem.net*; *and ereads.net* — all of which use the same IP and hosting address (IP: 101.99.94.14; ISP: Shinjiru.com.my). Combined these sites receive more than seven million visits per month.

In the past year, the *Idoc.pub* network of read online sites, operated from Vietnam, has grown in prominence, amassing some six million visits per month. 90% of the sites in the network use Cloudflare to mask their underlying IP addresses and are hosted by OVH SAS or IncogNET LLC. Further, numerous sites in the network also use Google AdSense services to generate revenue from advertisements placed on the site.

Telegram — an instant messaging app, is now a platform of choice for pirates, with private groups linked to public channels and Telegram bots used to automate requests for and downloads of content. The app is projected to have over one billion total subscribers in 2024, and currently has more than 700 million monthly active users. ¹⁸ While the platform has a copyright infringement reporting mechanism, it lacks a comprehensive approach to mitigating the rampant piracy facilitated by the private groups operating in violation of the platform's policy guidelines. Further, the encrypted nature of the platform presents significant enforcement difficulties for penetrating the private groups dedicated to distributing infringing content. Notorious piracy networks (such as Z-Library) have established Telegram bots and channels to distribute copyrighted content or provide links to piracy sites hosting and disseminating pirated materials.

An increasing number of Telegram groups and channels are involved in hosting or distributing copyrighted materials, with some engaging in crowdsourcing copyrighted content from users with institutional access. The trend of crowdsourcing copyrighted content has gained prominence with private groups on the platform, where users actively participate in requesting and sharing copyrighted materials. Despite this problematic trend, Telegram has not implemented adequate measures to effectively enforce its policies and address the infringing activities occurring within private groups or those related to linking to public channels. While the platform's adherence to privacy and security has been lauded, it is failing to adequately address the infringing activity occurring via the app. The piracy activity is often evident, as infringers openly promote their private groups across various social media platforms and encourage other users to join them. The platform should take meaningful action to address the issues of crowdsourcing, linking, and Telegram bots, including adapting and adjusting policies to confront these challenges effectively.

1337 Services (Njalla) — the service, founded by The Pirate Bay co-founder Peter Sunde and based in Nevis, acts as an intermediary for domain name registration purposes. Clients utilize the service to procure and "own" domain names on their behalf, providing the client with anonymity by obscuring the identity of the actual domain owner. The service is widely utilized by piracy sites such as Z-Library.se, Sci-Hub.se, Libgen.se, and Annas-Archive.org, and now hosts some 100 publishing-related piracy sites.

Rogue Hosting Providers — offer support to the large piracy networks engaged in criminal copyright infringement. These providers are typically uncooperative, often disregarding requests for assistance from rights holders, even law enforcement agencies. Not only do rogue hosting providers take pains to remain oblivious to the activities of the entities to which they provide services, some may purposefully create conditions that facilitate unlawful activity, such as spamming, phishing, malware distribution, hacking, and piracy.

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¹⁸ See 90+ Telegram Statistics In 2023 (Updated) (demandsage.com).

Problematic hosting providers include:

Contabo.com/en — located in Germany and provides hosting services to, among others, https://gradespush.com/; and https://gradesp

Epinatura, **LLC** (Ukrainian Data Network; <u>www.urdn.com.ua</u>) — located in Ukraine and known for providing services to Libgen and Anna's Archive.

Incognet.io — provides hosting services to https://dokumen.pub/ and https://vdoc.pub/. While the platform does not respond to rights holder notifications, its website notes that takedown notifications are forwarded to the website owner.

IP Volume Inc. (aka FiberXpress B.V.; Nogovara, DataOne B.V., Incrediserve Ltd., REBA Communications, B.V. at www.ipvolume.net) — located in The Netherlands and providing services to the Libgen network.

Virtual Systems LLC (OWL Protect EOOD, <u>www.vsys.host</u>) — with operations in Amsterdam and Ukraine, it began providing hosting services to Z-Library after November 2022 (following seizure the site's many mirrors) and to PDFDrive (*pdfdrive.com*, *zlibrary.to*).

Conclusion

AAP member publishers — in trade, education, and the scientific, technical, and medical publishing sectors — are vital contributors to the U.S. economy. Publishers curate and bring to market engaging, entertaining, and educational content and creative expression to readers of all types — students, teachers, medical personnel, researchers, or scientists, while also exploring new and novel ways to develop and deliver this content. However, large scale infringing activity facilitated by piracy sites and networks, and the rogue platforms that provide services to these pernicious pirate actors harms not just publishers and their authors, but all involved in the publication of a book or journal article, including editors, researchers, illustrators, and other publishing industry personnel. Cross-border collaboration between and among governments, and with rights holders is necessary to address the nature and scale of today's online piracy more effectively.

AAP and its members appreciate and support the work of the U.S. government in identifying notorious markets that traffic in infringing content, whether in physical markets or online.