On the limitations of recent lawsuits against Sci-Hub, OMICS, ResearchGate, and Georgia State University

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**Abstract**

This opinion piece traces the developments in four recent high-profile U.S. lawsuits against Sci-Hub, OMICS, ResearchGate, and Georgia State University, and suggests that the cases demonstrate how the use of litigation to resolve scholarly publishing disputes often appears – at least at this stage and in these cases – ineffective and unsatisfactory. Sometimes legal cases and legislation struggle to keep up with technological developments. At other times, business solutions overtake the slow-moving legal process. And in some instances, even when a court seems to reach an effective resolution, the judgment cannot be enforced. The shift over the past decades to online publishing, the low cost and ease with which digital content can be produced, copied, and disseminated, and changing expectations over the sharing of this content appear to be contributing to this ineffectiveness.

**Key Points**

* The 2017 Sci-Hub judgment has to date proven unenforceable, and it appears that enforcing the 2019 OMICS judgment will similarly prove challenging.
* Business developments and changing expectations over sharing digital content may also undermine the impact of the ongoing cases against ResearchGate and Georgia State University.
* Stakeholders should consider these limitations when deciding how to resolve scholarly publishing disputes.

**INTRODUCTION**

The four recent high-profile U.S. lawsuits discussed in this article – *Elsevier v. Sci-Hub*, *American Chemical Society v. ResearchGate*, *Cambridge University Press v. Patton,* and *Federal Trade Commission v. OMICS* – demonstrate that in today’s rapidly evolving scholarly publishing environment, litigation is a blunt weapon with mixed results. Sometimes legal cases and legislation struggle to keep up with technological developments and societal expectations (Wadhwa, 2014). At other times, business solutions overtake the slow-moving legal process. And in some instances, even when a court seems to reach an effective resolution, the judgment cannot be enforced.

All four cases, at their heart, are inextricably tied to the seismic shift from paper documents to digital content and the ease with which it can be produced, copied, and distributed online. This shift has made it possible for people like Sci-Hub founder Alexandra Elbakyan and OMICS founder Srinubabu Gedela to operate industry-altering platforms for relatively little capital from wherever they have internet access. At the same time, consumers increasingly expect to be able to share their electronic content and access others’ content for free, or at least for a significantly reduced price (DeVoss & Porter, 2006), and are often willing to circumvent legally-sanctioned venues and breach copyright agreements to do it.

A major challenge when suing foreign defendants (meaning, outside the court’s geographic jurisdiction) is enforcing hard-won judgments abroad. The $15 million award and injunction against Sci-Hub (and the subsequent $4.8 million award in a similar suit brought by the American Chemical Society) has done nothing to slow down the massive pirated-article repository. Reportedly operating out of Russia, Sci-Hub continues to evade the reach of the law and ‘is increasingly attracting more traffic’ (Kulkarni, 2018). In fact, the attention generated by the lawsuits may ironically bring more researchers to the site.

The suit against India-based alleged predatory publisher OMICS appears to have prompted some changes to its website (such as new big red buttons explaining the company’s article processing charges, use of impact factor, and peer review process). Yet it remains uncertain – and in my view doubtful – that the U.S. Federal Trade Commission will be able to collect the $50.1 million award or that OMICS will comply fully with the court’s broad and extensive injunction. OMICS has said that it has no physical assets in the U.S. (OMICS, n.d.) and will appeal the judgment.

How courts resolve the two ongoing cases – *American Chemical Society v. ResearchGate* and *Cambridge University Press v. Patton* – also remains unclear, but even in these cases solutions outside the courtroom may prove more effective. American Chemical Society (ACS) and Elsevier, for instance, might find themselves at a competitive disadvantage as other publishers find business compromises with popular academic social network platform ResearchGate (RG) that may better reflect the current publishing environment and author expectations. To illustrate, Springer Nature, Cambridge University Press, and Thieme recently agreed to permit limited sharing of their journal articles in exchange for prompt removal by RG of infringing articles. In March 2019, recent issues of twenty Nature journals became freely available through RG. ACS and Elsevier continue to insist that RG prevent infringing content from being uploaded at the outset.

The shift towards open access similarly appears to have overtaken the dispute over sharing unlicensed educational resources with students in *Cambridge University Press v. Patton.* Observers have called the lawsuit (which commenced in 2008) against the then-president of Georgia State University ‘silly and out-of-date’ (Smith, 2018) and noted that ‘the world has moved on’ (Albanese, 2019). This is not to say that law has become impossible to enforce in today’s pixel-driven world or that litigation (and its threat) is not useful, but rather that stakeholders may find the limitations in these cases helpful when formulating dispute resolution strategies.

The remainder of this piece summarizes each case, provides some insights from relevant court documents (of which interested readers can find many for free at <https://www.courtlistener.com/>), and briefly touches on the interface between technology and law within the context of the cases.

*Elsevier v. Sci-Hub, et al.*

On 21 June 2017, the U.S. District Court for the Southern District of New York awarded Elsevier $15 million and a permanent injunction prohibiting copyright infringement against Sci-Hub, the Library Genesis Project, and Alexandra Elbakyan. Elsevier is the world’s largest publisher of academic research. Sci-Hub has been dubbed ‘the world’s largest pirate website for scholarly literature’ (Bohannon, 2016) and ‘poses the greatest threat to publishers and librarians’ (Nicholas *et al.*, 2019a) while the Library Genesis Project, also known as LibGen, is a text-sharing platform that (as of 2014) hosted 25 million digital documents (Cabanac, 2015). It is no accident that Elsevier is the publisher that sued them: Elsevier’s content is ‘by a long shot’ the most downloaded from Sci-Hub (Bohannon, 2016) and Elsevier found more than 29,000 of its books and approximately 12 million of its articles in LibGen’s database (*Elsevier*, 2015). Sci-Hub was hit again a few months later when, on 3 November 2017, the U.S. District Court for the Eastern District of Virginia awarded $4.8 million for similar claims to the American Chemical Society, a professional and scientific society that publishes over 50 scientific journals.

Greco (2016) called the Elsevier case against Sci-Hub ‘the largest copyright infringement case in the history of the U.S. and in the history of the world’ and potentially ‘the most important intellectual property case for publishing in almost a hundred years’ (2017). But this once hot case seems to have fizzled. The court judgments forced Sci-Hub to change its domain name (from sci-hub.org) but there is no evidence that any of the combined $19.8 million has been collected and downloading has continued unabated at the new domain name. Some researchers suggest, in fact, that using Sci-Hub may be technically illegal but not morally wrong, and have found that academics use Sci-Hub more for convenience than necessity (Nicholas *et al.*, 2019a). These developments and attitudes indicate that there is little holding researchers back from continued Sci-Hub use, making Elsevier’s and ACS’s victories ring hollow.

Sci-Hub’s and LibGen’s eventual disregard for the court orders was presaged by their lack of involvement in the court proceedings. It seems they either felt they could not win in court or they did not care. Neither sent a representative to New York nor filed any formal court pleadings, though to my slight surprise I found a court transcript of a conference call involving the judge, Elsevier’s counsel, and Elbakyan, during which Elbakyan said she could not afford a lawyer and requested time to reply to the allegations. Elbakyan also wrote a letter to the judge explaining that Sci-Hub enabled her to ‘obtain any paper by pirating it, so I solved many requests and people always were very grateful for my help’. She argued that the research community believes papers should be distributed for free and that ‘companies like Elsevier are unacceptable, because they limit distribution of knowledge’ (Elbakyan, n.d.). While the points made in the letter and phone call may find a sympathetic audience among researchers, they failed to adequately rebut Elsevier’s allegations within the context of the applicable rules of U.S. copyright law and did not satisfy the legal procedures required to answer Elsevier’s complaint, thus leading to the default judgment (awarded when a party is served notice but fails to answer the legal claims against it).

*American Chemical Society, et al. v. ResearchGate*

Elsevier and ACS teamed up again, this time jointly, to sue ResearchGate in October 2017 (in Germany) and October 2018 (in the U.S.) for ‘massive infringement of peer-reviewed, published journal articles’. RG provides reputational metrics and promotes sharing of academic material (Nicholas *et al.*, 2016). The cases against it are ongoing at the time of this writing in May 2019.

ACS and Elsevier complain that RG uploads and encourages authors to upload copyright-protected articles from ACS and Elsevier journals, and even more, that RG knows which uploaded articles are infringing (*American Chemical Society et al.*, 2018). Most copyright agreements allow authors to upload an early version (called a pre-print if before peer review and a post-print if after) – but not the final published version – of their articles to public commercial forums like RG. RG warns authors against uploading protected content and complies with valid takedown requests from publishers but does not check uploaded files for infringement (Jamali, 2017). Jamali found that 51.3% of 392 non-open access articles uploaded to RG were ‘non-compliant’. With 3,143 alleged instances of infringement entered into the court record valued at $150,000 each, the court claim totals more than $470 million. RG has replied that it does not upload infringing articles itself and that its system leaves it to the authors to decide how to share their work.

Elsevier’s historically fraught relationship with researchers seems to have reared its head in the case, demonstrating how risky litigation can be. To explain, RG has raised the novel argument that the court must provide authors of the 3,143 articles notice of the lawsuit to give them an opportunity to protect their rights. RG’s legal reasoning is as follows: ACS and Elsevier copyright agreements are often signed by only one of several co-authors (the sample agreements that RG located require only one signature). Although the contracts provide that the signatures of the corresponding authors signify that they are authorized to transfer the rights of all authors, RG contends that under U.S. copyright law (specifically 17 U.S.C. § 204(a)), *written* agreement from co-authors authorizing the transfer is required. Presumably these written agreements between authors do not exist, or at least ACS and Elsevier have not produced them. Hence, in RG’s view, co-authors who have not signed the agreement have in fact never transferred their copyright to ACS and Elsevier in the first place (RG’s preliminary research showed that approximately 60% of authors who uploaded texts were not corresponding authors). Their rights are at stake, the argument goes, and by law they must be notified (*American Chemical Society*, Feb. 2019) (publishers, take note when preparing copyright agreements).

ACS and Elsevier have countered, among other things, that authors might feel threatened to receive notices from the court, that allowing RG’s request ‘would turn the proceedings into a circus’, and that the aim of RG’s argument is to distract and confuse authors and ‘unsettle publishers’ relations with authors’ (*American Chemical Society* *et al.*, Mar. 2019). Indeed, it is this last point – the unsettling of relations between the publishers and their authors – that in my very speculative view may be at the heart of this RG legal motion. In the academic publishing world, Elsevier has ‘perhaps the single worst reputation’ (Tennant, 2018), facing the ire of academics for opposing open access, issuing takedown notices directly to researchers, and charging high fees (Hu, 2016; Tennant, 2018). A movement to boycott Elsevier called the Cost of Knowledge (<http://thecostofknowledge.com/>) has now been signed by over 17,000 researchers (in full disclosure, after publishing some poems in an Elsevier journal last year, I also decided to sign the petition). ACS and Elsevier have made it very clear that their beef is with RG, not authors (McKenzie, 2018), perhaps signalling that they do not wish to antagonize their main source of content and, increasingly, article processing charges. RG is surely aware of these developments and – again, I speculate – likely understands that it would be a public relations disaster for Elsevier if the court began notifying the co-authors of 3,143 academic articles that their rights may be threatened in a lawsuit co-initiated by Elsevier (Elsevier also happens to specialize in scientific, medical, and technical journals, which tend to have more article co-authors than other fields). The court has not yet ruled on these motions.

As a final note on *ACS v. RG*, it is arguably a sounder policy for RG to allow researchers (rather than RG or an algorithm) to decide whether final versions of articles can be shared publicly. Not all authors who publish in the same journal agree to the same copyright terms. Professor Joseph Weiler of New York University School of Law, for example, either ‘forgets’ to send back his copyright forms or amends them by hand to grant only a non-exclusive license. He has been challenged only once in twenty years (Weiler, 2010).

*Cambridge University Press, et al. v. Patton, et al.*

In April 2008, Cambridge University Press, Oxford University Press, and Sage Publications sued Carl Patton, the then-president of Georgia State University (GSU), and other university officials, for allegedly encouraging GSU faculty members to offer students unlicensed digital excerpts of copyright-protected works for course readings. Although licensed excerpts were included in paper packets sold by the university bookstore, the unlicensed excerpts uploaded onto the university’s servers were naturally more popular. This case was originally viewed by many as having the potential to clarify the tension between fair use and copyright infringement in educational settings, but it has dragged on for over 11 years, having been appealed up and remanded down twice, without having added much clarity.

In her first ruling in 2012, Judge Orinda Evans determined that GSU’s distribution of the e-copies was ‘fair use’ in all but five of the 48 alleged copyright violations. Legally speaking, ‘fair use’ allows limited use of copyrighted material without permission for purposes like teaching, research, news reporting, criticism, or parody. The primary legal question – and the issue on which the Court of Appeals for the Eleventh Circuit twice corrected Judge Evans – was how to apply a four-factor legal test to determine fair use. This test considers the purpose and character of the use (e.g., commercial or educational), the nature of the work (e.g., informational or entertaining), the amount of the portion used, and the effect of the use on the potential market. The Court of Appeals held both times that Judge Evans should not have used a mathematical formula – even one that could be adjusted depending on the circumstances – to weigh the factors, but instead must assess them together holistically ‘in the light of the purposes of copyright.’ It remains to be seen how Judge Evans will manage these instructions.

Georgia State University is a well-established public U.S. university more likely than Sci-Hub and OMICS to comply with any eventual court award. Moreover, unlike RG, GSU has greater control over the use of the copyrighted material in dispute. Yet by taking over a decade to resolve the matter and insisting on a vague approach for determining fair use, the courts have arguably taken the teeth out of the case, raising questions about the publishers’ wisdom in pursuing the matter for so long. In 2014, shortly after the first appeal, Duke University Scholarly Communications Officer Kevin Smith opined that the publishers ‘were hoping to radically change the landscape, and they have failed spectacularly’ and should ‘stop wasting money on foolish and unavailing litigation’ (Smith, 2014). After the second appeal, Brandon Butler, Director of Information Policy at the University of Virginia Library, observed that the most likely guidance from the case will be for librarians to crudely match their use with that in the case, and that the case’s impact will be limited in any event because it will only bind the courts in three U.S. states (Albanese, 2019). As noted previously, the recent turn towards licensing arrangements that allow unlimited simultaneous users and the emergence of open educational resources has further diminished the case’s potential impact (Albanese, 2019).

*Federal Trade Commission v. OMICS Inc., et al.*

On 29 March 2019, the U.S. District Court for the District of Nevada held three U.S. subsidiaries of OMICS International and its founder Srinubabu Gedela liable for $50.1 million for deceptive business practices. The court ordered OMICS, the publisher of hundreds of online open-access journals and the organizer of hundreds of academic conferences around the globe, to stop misleading authors about its article processing fees, the indexing and impact factor of its journals, the quality of its peer review, and the involvement of well-known scholars in its academic conferences. OMICS has been called ‘the evil empire’ and ‘the Wal-Mart’ of predatory publishers (Kolata, 2019). The court ruled on summary judgment without proceeding to trial, finding that OMICS had failed to raise any genuine dispute over material facts and that the FTC was entitled to judgment as a matter of law. For authors or conference attendees who were cheated by OMICS, the case may feel like long overdue justice.

*FTC v. OMICS* is a fundamentally different legal case from the others. First and most importantly, it involves consumer deception rather than copyright infringement, two very distinct claims. This means that the publisher (OMICS) is the defendant, rather than the plaintiff as in the other three cases, and that the case is brought by a government agency rather than a private party. It also means that a lot of researchers must have complained about OMICS, enough to have prompted the FTC to invest the substantial resources necessary to investigate and sue OMICS. In contrast, researchers seem not so much to be complaining about ResearchGate and Sci-Hub as turning to them to meet their research needs (Nicholas *et al.*, 2019b). And although OMICS claims on its website that its journals and conferences benefit the ‘global scientific community’, unlike Sci-Hub, OMICS is making a lot of money from providing this ‘benefit’ (it is not clear how much money Sci-Hub receives in donations and what it does with that money).

Despite these differences, the OMICS case may nevertheless similarly illustrate the challenges in using litigation to resolve disputes. It is still unclear whether OMICS will resist paying the court award but it seems probable considering the high amount, the likelihood that the assets are abroad and thus not easily recoverable, and OMICS’s reaction that the judgment was ‘unjustifiable and violation [*sic*] of natural justice’ (Kolata, 2019) (one of the factors to determine enforceability of a foreign judgment under Indian law is whether ‘the proceedings in which the judgment was obtained are opposed to natural justice’).

Additionally, Gedela will have his work cut out for him if he intends to comply with the court order’s stringent requirements. As just one example, Gedela must for the next five years provide a copy of the judgment to all corporate officers and managers in companies that he controls. For twenty years, he must report changes to his name, residence, and title or role in any business activity. OMICS must also stop making misleading statements on its website. As of the date of this writing, the site still says that many of its journals have a ‘high impact factor’ and ‘are indexed in various world renowned [*sic*] science databases like Medline, PubMed Central, Obscure and Scopus’. These are the kinds of phrases that the FTC criticized and appear prohibited by the court judgment without additional clear and conspicuous disclosure.

**WHERE ARE THE TECHNOLOGICAL SOLUTIONS?**

Litigation and business solutions are not the only arrows in publishers’ or governments’ quivers. Technological solutions offer a parallel track to control behaviour that can be just as – and sometimes even more – effective than legislation (Lessig, 2003). But like litigation, technology is also sometimes a blunt weapon, failing to capture the nuance inherent in legislation or match the judiciary’s ability to delicately balance competing rights (Lessig, 2003). No one has proposed any technological solutions to solve the problem of alleged predatory publishers like OMICS, but one can imagine how blocking sites, giving online warnings, or even creating blacklists without due care potentially fail to adequately consider free speech (for the publisher), freedom to submit one’s work wherever one wishes (for the author), and reputational damage (for both publisher and author).

In contrast, there have been many technological responses to copyright infringement such as encryption, ‘fingerprinting’, spoofing (flooding infringers with distorted files), converting all content to ‘read-only’ (which would prevent copying and downloading), and the ubiquitous Digital Rights Management (a technology that controls how digital media can be used and shared) (see e.g., Tang, 1998; Taylor, 2006; Campidoglio *et al.*, 2009; Greco, 2017). These have largely proven ineffective, however. Indeed, there appears to be ‘no silver bullet’ (Malherbe, 2017). Digital Rights Management technology, for instance, can apparently be cracked ‘[i]n just a few clicks’ (Lipstein, 2015). In 2016, Peter Suber, Director of the Office for Scholarly Communications at Harvard University, observed that there were no ‘obvious technical means’ to stop Sci-Hub (Bohannon, 2016). He seems right: now three years later, Sci-Hub is still going strong. The International Association of Scientific Technical and Medical Publishers (of which ACS and Elsevier are members) proposed to RG that it implement an ‘automated system, utilizing existing technologies’ that would prevent infringing articles from being shared publicly (Lavizzari, 2017). RG reportedly rejected that solution (McKenzie, 2018) and, as mentioned above, such a tool at this time may prove imprecise given the different licensing arrangements between authors and publishers even for the same journal.

Perhaps emerging and future technologies will prove more effective. Savelyev (2018) argues that blockchain can ‘substantially mitigate risks of online piracy’ by improving the ability to track copies of copyrighted works. Bodó, *et al.* (2018) ask whether blockchains and smart contracts may one day replace copyright, and they imagine a future in which ‘[a]uthors publish their works on a blockchain creating a quasi-immutable record of initial ownership, and use smart contracts to automate the control of who has access to their works and under which conditions.’

The use of new technologies like smart contracts and blockchain to enforce or perhaps even replace copyright law can be seen as part of a larger shift in cyberlaw in which the distinction between law and technology is increasingly blurred. The companies involved in the four lawsuits and others like them that utilise the internet and other technological mechanisms for delivery of their services will continue to be impacted by this convergence. Lessig (2003), one of leaders in conceptualizing this intersection, suggested that code is law (referring to how technological controls that fill gaps in legal rules can regulate behaviour more than formal laws) while more recently, law has been called code (referring to how technologies like blockchain and smart contracts ‘not only […] enforce legal rules, but also […] draft and elaborate these rules’) (De Filippi & Hassan, 2016). Hence although both Savelyev and Bodó, *et al.* make it clear that a blockchain solution to copyright problems faces numerous obstacles, perhaps the solution to these technologically-created disputes resides (at least partially) in technology itself (Clark, 1996). I can imagine a day when the sharing of the digital code that we still call a document is controlled by the terms of a copyright agreement embedded in that very code.

**CONCLUSION**

Assessing the impact of recently completed or ongoing lawsuits is a risky exercise. Short term losses by a litigant may obscure long term gains; equally, short term gains can hide long term losses. Sometimes a party may lose in court but by bringing the lawsuit, deters other potential bad actors. If litigation proves ineffective, perhaps future advances in technology can do a better job at alerting authors (and university assessment committees) to predatory publishers or in preventing or even punishing copyright infringement. Still, one cannot help but hear in the courtroom battles of today between Elsevier, Sci-Hub, ResearchGate, Cambridge University Press, and GSU echoes of Metallica’s 2000 lawsuit against peer-to-peer file-sharing service Napster (Patel, 2015). Dozens of alternative services rose like mushrooms to take Napster’s place. Similarly, there are mirror sites and failsafe backups ready to spring up in case Sci-Hub and LibGen go down (Bohannon, 2016; Elbakyan, 2017; Hoy 2017; Nicholas *et al.*, 2019a). If ResearchGate were forced to remove a large portion of its more than 100 million uploaded documents (Jamali, 2017), I cannot imagine that an alternative sharing service would fail to appear. In the music industry, new business models that were more attractive to users than pirating sites, rather than litigation, ultimately prevailed (Gapper, 2017; Green, 2017).

The future of services like Sci-Hub, ResearchGate, OMICS, and even Elsevier will likely depend on the attitudes and practices of scholars. There is increasing evidence, for instance, that a significant portion of researchers have submitted their manuscripts to so-called predatory publishers like OMICS with full knowledge of their low quality (Demir, 2018; Kurt, 2018; Frandsen, 2019). Likewise, some academics freely provide their university usernames and passwords to grant access to Sci-Hub (Nicholas *et al.*, 2019a) while others willingly, perhaps in some cases even gleefully, surreptitiously download. Thousands and perhaps even millions of scholars either do not read carefully, wilfully ignore, or simply do not understand the copyright agreements they have signed when uploading to ResearchGate. These are not isolated events and none of them is making money – they simply want to share, read, and learn. Given these trends, one must ask whether our journal system is adequately serving enough of the researchers who live in the ‘publish or perish’ ethos that we have created, or whether copyright in today’s scholarly publishing world is serving its original purpose. DeVoss & Porter (2006) explain that ‘[t]he purpose of copyright is not to reward authors. Rather, rewarding authors is a means toward an end, and that end (“the primary objective”) is “the progress of science and useful arts.” In short, copyright serves society’. Adapting this to the academic world, one could easily replace the word ‘authors’ with ‘publishers’. Ironically, this statement, which in part quotes Justice Sandra Day O’Connor of the U.S. Supreme Court, is published in *Computers and Composition*, an Elsevier journal.

**CONFLICT OF INTEREST**

The author has signed the Cost of Knowledge boycott of Elsevier. He has promised to refrain from publishing in, refereeing for, and performing editorial work for Elsevier journals.

**REFERENCES**

Albanese, A. (2019, 19 April). The GSU e-reserves case lumbers on. *Publishers Weekly*. Retrieved 14 May 2019, from <https://www.publishersweekly.com/pw/by-topic/digital/copyright/article/79845-gsu-e-reserves-case-lumbers-on.html>.

*American Chemical Society, et al. v. ResearchGate* (2018, 2 October). Complaint for declaratory and injunctive relief and damages.

*American Chemical Society, et al. v. ResearchGate* (2019, 13 February). American Defendant ResearchGate GMBH’s opening brief in support of its motion for notice under 17 U.S.C. § 501(b).

*American Chemical Society, et al. v. ResearchGate* (2019, 11 March). Plaintiffs’ memorandum in opposition to defendant’s motion for notice under 17 U.S.C. § 501(b).

Bodó, B., Gervais, D., & Quintais, J. P. (2018). Blockchain and smart contracts: the missing link

in copyright licensing? *International Journal of Law and Information Technology, 26*(4), 311-336. <https://doi.org/10.1093/ijlit/eay014>.

Bohannon, J. (2016). Who’s downloading pirated papers? Everyone. *Science*, *352*(6285), 508-512. <http://doi.org/10.1126/science.352.6285.508>.

Campidoglio, M., Frattolillo, F., & Landolfi, F. (2009). The copyright protection problem: Challenges and suggestions. 2009 Fourth International Conference on Internet and Web Applications and Services. Retrieved 14 May 2019, from <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5072571>.

Cabanac, G. (2015). Bibliogifts in LibGen? A study of a text-sharing platform driven by biblioleaks and crowdsourcing. *Journal of the Association for Information Science and Technology,* *67*(4), 874-884. <https://doi.org/10.1002/asi.23445>.

Clark, C. (1996). The answer to the machine is in the machine. In P. B. Hugenholtz (Ed.), *The future of copyright in a digital environment* (pp. 139-146). The Hague, Netherlands: Kluwer Law International.

De Filippi, P. & Hassan S. (2016). Blockchain technology as regulatory technology: From code is law to law is code. *First Monday, 21*(12). <https://doi.org/10.5210/fm.v21i12.7113>.

Demir, S. B. (2018). Predatory journals: Who publishes in them and why? *Journal of Informetrics*, 12(4), 1296-1311. <https://doi.org/10.1016/j.joi.2018.10.008>.

DeVoss, D. N. & Porter, J. E. (2006). Why Napster matters to writing: Filesharing as a new ethic of digital delivery. *Computers and Composition,* *23*(2), 178-210. <https://doi.org/10.1016/j.compcom.2006.02.001>.

Elbakyan A. Letter to Judge Robert Sweet (n.d.). Retrieved 14 May 2019, from <https://www.courtlistener.com/recap/gov.uscourts.nysd.442951.50.0.pdf>.

Elbakyan A. (2017). Some facts on Sci-Hub that Wikipedia gets wrong. *Engineuring* [Web log post]. Retrieved 14 May 2019, from <https://engineuring.wordpress.com/2017/07/02/some-facts-on-sci-hub-that-wikipedia-gets-wrong/>.

*Elsevier v. Sci-Hub, et al.* (2015, 11 June). Memorandum of law in support of in support of [*sic*] plaintiffs’ application for an order authorizing alternative service of process on defendants and order to show cause for a preliminary injunction.

Frandsen, T. F. (2019). Why do researchers decide to publish in questionable journals? A review of the literature. *Learned Publishing, 32*(1), 57-62. <https://doi.org/10.1002/leap.1214>.

Gapper, J. (2017, April 5). How the music industry came back to life. *Financial Times*. Retrieved 14 May 2019, from <https://www.ft.com/content/f72b1d2c-1937-11e7-a53d-df09f373be87>.

Greco, A. N. (2016). The impact of disruptive and sustaining digital technologies on scholarly journals. *Journal of Scholarly Publishing, 48*(1), 17-39. <https://doi.org/10.3138/jsp.48.1.17>.

Greco, A. N. (2017). The Kirtsaeng and SCI-HUB cases: The major U.S. copyright cases in the twenty-first century. *Publishing Research Quarterly, 33*(3) 238-253. <https://doi.org/10.1007/s12109-017-9522-7>.

Green, T. (2017). We’ve failed: Pirate black open access is trumping green and gold and we must change our approach. *Learned Publishing, 30*(4), 325-329. <https://doi.org/10.1002/leap.1116>.

Hoy, M. B. (2017). Sci-Hub: What librarians should know and do about article piracy. *Medical Reference Services Quarterly,* *36*(1), 73-78. <https://doi.org/10.1080/02763869.2017.1259918>.

Hu, J. (2016, 26 January). Academics want you to read their work for free. *The Atlantic*. Retrieved 14 May 2019, from <https://www.theatlantic.com/science/archive/2016/01/elsevier-academic-publishing-petition/427059/>.

Jamali, H. R. (2017). Copyright compliance and infringement in ResearchGate full-text journal articles. *Scientometrics,* *112*(1), 241-254. <https://doi.org/10.1007/s11192-017-2291-4>.

Kolata, G. (2019, 3 April). The price for ‘predatory’ publishing? 50 million. *The New York Times*. Retrieved 14 May 2019, from <https://www.nytimes.com/2019/04/03/science/predatory-journals-ftc-omics.html>.

Kulkarni, S. (2018, 27 February). Latest data shows that Sci-Hub thrives despite infrastructure losses. *Editage Insights*. Retrieved 14 May 2019, from <https://www.editage.com/insights/latest-data-shows-that-sci-hub-thrives-despite-infrastructure-losses/1519713287>.

Kurt, S. (2018). Why do authors publish in predatory journals? *Learned Publishing,* *31*(2), 141-147. <https://doi.org/10.1002/leap.1150>.

Lavizzari, C. S. Letter to ResearchGate GmbH (2017, 16 September). Retrieved 14 May 2019, from <https://www.acs.org/content/dam/acsorg/pressroom/newsreleases/20170916-letter-research-gate.pdf>.

Lessig, L. (2003). Law regulating code regulating law. *Loyola University Chicago Law Journal 35*(1), 1-14.

Lipstein, A. (2015, March 19). How DRM evolved from protecting publishers from piracy to protecting Amazon from competition [Web log post]. *Electric Literature*. Retrieved 14 May 2019, from <https://electricliterature.com/how-drm-evolved-from-protecting-publishers-from-piracy-to-protecting-amazon-from-competition/>.

Malherbe, P. (2017, November 5). Can ebook piracy be prevented (or even just managed)? [Web log post]. *Medium*. Retrieved 14 May 2019, from <https://medium.com/custostech/can-ebook-piracy-be-prevented-or-even-just-managed-fda38ff01940>.

McKenzie, L. (2018, 4 October). Publishers escalate legal battle against ResearchGate. *Inside Higher Ed*. Retrieved 14 May 2019, from <https://www.insidehighered.com/news/2018/10/04/publishers-accuse-researchgate-mass-copyright-infringement>.

Nicholas, D., Clark D., & Herman E. (2016). ResearchGate: Reputation uncovered. *Learned Publishing,* *29*(3), 173-182. <https://doi.org/10.1002/leap.1035>.

Nicholas, D., Boukacem-Zeghmouri, C., Rodríguez-Bravo, B., Xu, J., Watkinson, A., Abdullah, A., … Świgoń, M. (2019a). Sci-Hub: The new and ultimate disruptor? View from the front. *Learned Publishing,* *32*(2), 147-153. <https://doi.org/10.1002/leap.1206>.

Nicholas, D., Watkinson, A., Boukacem-Zeghmouri, C., Rodríguez-Bravo, B., Xu, J., Abdullah, A., … Herman, E. (2019b). So, are early career researchers the harbingers of change? *Learned Publishing*. Advance online publication. <https://doi.org/10.1002/leap.1232>.

OMICS Letter to Ioana Rusu (n.d.). Retrieved 14 May 2019, from <https://www.omicsonline.org/pdfs/OMICS-Group-Lawyer-Response-to-FTC-Allegations.pdf>.

Patel, N. (2015, 13 April). Metallica sued Napster 15 years ago today. *The Verge*. Retrieved 14 May 2019, from <https://www.theverge.com/2015/4/13/8399099/metallica-sued-napster-15-years-ago-today>.

Savelyev, A. (2018). Copyright in the blockchain era: Promises and challenges. *Computer Law & Security Review, 34*(3), 550-561. <https://doi.org/10.1016/j.clsr.2017.11.008>.

Smith, K. (2014, 19 October). GSU appeal ruling — the more I read, the better it seems [Web log post]. *Scholarly Communications @ Duke*. Retrieved 14 May 2019, from <https://blogs.library.duke.edu/scholcomm/2014/10/19/gsu-appeal-ruling-read-better-seems/>.

Smith, K. (2018, 10 October). The GSU copyright case: Lather, rinse, repeat. *IO: In the Open*. Retrieved 14 May 2019, from <http://intheopen.net/2018/10/the-gsu-copyright-case-lather-rinse-repeat/>.

Tang, P. (1998). How electronic publishers are protecting against piracy: Doubts about technical systems of protection. *The Information Society, 14*(1), 19-31. <https://doi.org/10.1080/019722498128980>.

Taylor, A. (2006). Publishing and electronic piracy. *Learned publishing, 19*(3), 168-174. <https://doi.org/10.1087/095315106777877539>.

Tennant, J. (2018, 29 June). Elsevier are corrupting open science in Europe. *The Guardian*. Retrieved 14 May 2019, from <https://www.theguardian.com/science/political-science/2018/jun/29/elsevier-are-corrupting-open-science-in-europe>.

Wadhwa, V. (2014, 15 April). Law and ethics can’t keep pace with technology. *MIT Technology Review*. Retrieved 14 May 2019, from <https://www.technologyreview.com/s/526401/laws-and-ethics-cant-keep-pace-with-technology/>.

Weiler, J. (2010). Editorial: Copyright, law journals and a romantic view of EJIL. *European Journal of International Law,* *21*(3), 501-506. <https://doi.org/10.1093/ejil/chq061>.