

DRM and Consumers

Early Frustrations

Since the very beginnings of DRM and digital protection of e-books, users have expressed frustrations with their experience reading and navigating digital files. Many have been publicly vocal about why DRM has in many ways challenged their human right to access information online. The list of reasons why users have been frustrated with DRM and anti-piracy measures is long and has been covered in many academic studies over the years. Key frustrations include, among others:

- Lack of interoperability and standards among dedicated players (owing to proprietary DRM technologies by companies such as Amazon and Apple)
- Confusion as to what users can and cannot do with digital files
- Lack of transparency on the part of content providers who do not make users aware when they need to make changes, remove features, and so on
- Inability to use digital books effectively for research (as limits are placed on activities such as copying and printing, which frustrates both students and faculty)
- Inability to copy files for backup purposes (in case a user wants to switch devices)
- Loss of privacy (DRM technologies can collect, store, and share user data, including user's location, timing (i.e. when a user accesses content), gender, age, and IP address. Although analytics companies often insist that they do not collect personal information, "the practice of collecting a device's unique identifier means that they are able to track users over time. Unlike cookies, this is built into the device and cannot be cleared."¹ Further, implementation of DRM could lead to a society in which access to information is conditioned upon revealing one's identity.²)
- Disrespect for users with disabilities (This refers

to the text-to-speech function, which many publishers won't always allow sellers of e-books to embed in e-book files.)

- No guarantee of access to content in perpetuity (e.g., Amazon reserves the right in its license agreement with users to change the Kindle terms of service at any time, and it has certainly done so on more than one occasion.)
- Inability to ever own any digital content (Files may only be accessed but never owned in perpetuity.)
- IP measures that are not good for users in less developed countries (Academics in those countries don't have access to expensive academic books via their libraries and institutions and, as a result, end up creating less marketable knowledge and content overall.³)
- Users feeling that they are being treated as criminals even when they legitimately purchase an e-book (Indeed, at the core of DRM implementation lies the troubling notion that the reader may be a potential criminal.)
- Discomfort with living in a surveillance society and a world in which all facts are owned (By limiting common assets, "we might soon enter a world in which all facts, and all collections of facts, are presumptively *owned*."⁴)

For these and many other reasons, users worldwide have expressed dissatisfaction with how publishers and content providers have made e-books available to them. But not all publishers and industry leaders disagreed with them. A handful of forward-thinking publishers as early as the 2000s did not think piracy and file sharing would present the problems that most other publishers anticipated. In fact, some trade publishers (now seen as early adopters) have been embracing the concept of DRM-free e-books from the very beginning, including some technology publishers, such as O'Reilly Media, Microsoft Press, and Manning; some romance fiction publishers, such as Carina Press and Ellora's Cave; and some science fiction and fantasy publishers,

such as ChiZine, Tor Books, and Baen Books. Such publishers were aware of piracy early on but did not think it posed serious threat, so they did not invest their time and resources in trying to combat it (like most others).

In his now-seminal essay, “Piracy Is Progressive Taxation, and Other Thoughts on the Evolution of Online Distribution,”—published in 2002 but still relevant today and often quoted by innovators and scholars alike—publisher and innovator Tim O’Reilly offered several key thoughts related to piracy that still resonate eighteen years later, including, among others, the following:⁵

- “Obscurity is a far greater threat to authors and creative artists than piracy.” (“More than 100,000 books are published each year . . . yet fewer than 10,000 of those new books have any significant sales, and only a hundred thousand or so of all the books in print are carried in even the largest stores.” This hasn’t changed in 2019; if anything, the marketplace has grown and made it even more difficult for authors’ work to get noticed in the sea of literature published each year.)
- “Piracy is progressive taxation.” (“For all of these creative artists, most laboring in obscurity, being well enough known to be pirated would be a crowning achievement.” Piracy “may shave a few percentage points off the sales of well-known artists . . . in exchange for massive benefits to the far greater number for whom exposure may lead to increased revenues.” Here O’Reilly refers to very few books and authors receiving all the promotion, as publishers’ PR budgets are not and have never been distributed evenly.)
- “Customers want to do the right thing, if they can.” (“We’ve found little or no abatement of sales of printed books that are also available online.” Those who don’t respond to requests to take down content tend to be on servers in countries where “books are not available for sale or are far too expensive for local consumers to buy.” Here, O’Reilly refers to the books from his own publishing company, O’Reilly Media, which specializes in computer and technology books.)
- “Shoplifting is a bigger threat than piracy.” (“Those who are putting up CDs for sale on eBay containing PDF or HTML copies of dozens of books are in fact practicing piracy—organized copying of content for resale. . . . We see no need for stronger copyright laws, or strong Digital Rights Management software, because existing law allows us to prosecute the few deliberate pirates.” Here O’Reilly reminds publishing colleagues to keep a healthy perspective on the actual impact of “real” piracy, which should refer only to those reselling unlawful copies.)
- “File sharing networks don’t threaten book,

music, or film publishing. They threaten existing publishers.” (“The question before us is not whether technologies such as peer-to-peer file sharing will undermine the role of the creative artist or the publisher, but how creative artists can leverage new technologies to increase the visibility of their work. For publishers, the question is whether they will understand how to perform their role in the new medium before someone else does.” Here O’Reilly is inviting existing publishers to think outside the box before new kinds of publishers do it for them.)

Two years later, in 2004, writer Cory Doctorow gave an entertaining speech about DRM to Microsoft’s Research Group at its Redmond offices, in which he stated he was on a mission to convince everyone the following:⁶

- DRM doesn’t work (because all DRM systems “share a common vulnerability: they provide their attackers with ciphertext, the cipher and the key. At this point, the secret isn’t a secret anymore.”)
- DRM is bad for society. (“Keeping an honest user honest is like keeping a tall user tall. DRM vendors tell us that their technology is meant to be proof against average users, not organized crime gangs like the Ukrainian pirates who stamp out millions of high-quality counterfeits. At the end of the day, the user DRM is meant to defend against is the most unsophisticated and least capable among us.”)
- DRM is bad for artists (because it robs them of new possibilities. “Technology that disrupts copyright does so because it simplifies and cheapens creation, reproduction and distribution. The existing copyright businesses exploit inefficiencies in the old production, reproduction and distribution system, and they’ll be weakened by the new technology. But the new technology always gives us more art with a wider reach: that’s what tech is *for*. . . . Tech gives us bigger pies that more artists can get a bite out of.”)

Both O’Reilly and Doctorow invited the industry—at a time when most publishers seemed paralyzed by fear of what piracy would do to their bottom lines—to start questioning whether piracy posed a major threat and whether it would indeed cripple sales, as many continue to claim to this day. They invited their peers to give more credit to users and ask if DRM was the solution to a problem or was another problem. This raised many other questions that the industry has tried to find answers to in recent years, including, for example: Will books be pirated regardless of whether DRM is used? Is the risk of a potential lawsuit of customer dissatisfaction worth it? Will draconian DRM

policies drive users of e-books away? Is the amount of money lost due to piracy worth the steep cost of DRM technology? Will DRM always be vulnerable to hacking and piracy? What exactly have been the effects of piracy since the turn of the century, when visionaries like O'Reilly and Doctorow foresaw that DRM would not be the solution to a problem but a new problem? And what should those who produce and publish content—authors—ultimately fear the most in a world that sees millions of new books published each year. (According to UNESCO's 2017 statistics, 2.2 million books are now published each year worldwide.⁷)

Effects of Piracy

According to several articles, e-book piracy continues to rise as we near the end of the second decade of the twenty-first century, and it's been on the rise for the past decade.⁸ One explanation for the rise of piracy is how easy it is to pirate e-books. They are relatively small digital files (compared to videos), so they can be quickly and easily downloaded, shared, and reproduced. In addition, the high quality of digitally produced works makes it easy to make copies without quality being compromised. Pirated works are of the same quality as originals, so they could be said to be perfect digital reproductions.

Prior to e-books, widespread copying of pirated books required a considerable investment of time and money. And the outcome was always a subpar version of the original. Today it is remarkably easy for e-book pirates to purchase a retail copy and use programs such as Calibre to strip the Adobe DRM and make the book available on Torrent sites or underground subscription services. Therein lies the real problem of piracy: that “it takes only a small fraction of users who are capable of dissociating licenses from content to make managed content available to a significant fraction of users in unmanaged form.”⁹

Even legitimate e-book platforms such as Scribd and Wattpad faced criticism in the beginning phases of their development because illegal copies of popular titles appeared on their platforms (since they invited users to upload documents, college theses, and self-published novels). The inappropriate behavior of those users quickly led these companies to install various filters to easily identify copyrighted work when it was uploaded. So, although their intentions were not to break copyright laws but to encourage and promote self-publishing on such platforms, as soon as Scribd and Wattpad invited users to participate in the sharing of knowledge, copyright laws were broken and the two companies found themselves in the midst of combating piracy.

In a 2009 *New York Times* article, publishers such as Hachette were quoted as saying that their legal

departments spend a significant amount of time policing sites where copyrighted material may be available for free downloading. Publisher John Wiley & Sons confirmed at the time that it had sent notices on more than five thousand of its titles (throughout the year) asking various sites to take down illegal copies of their books.¹⁰

According to a survey conducted by Digimarc and Nielsen in 2017, 41 percent of all adult e-book pirates were between eighteen and twenty-nine years old, and 47 percent fell into the thirty-to-forty-four-year-old bracket. The remaining 13 percent were forty-five years old or older. The study also revealed that, contrary to popular belief, those who downloaded files illegally were not low-income consumers but members of the upper middle class.¹¹ Various other studies have shown that piracy was, indeed, most commonplace among younger people (ages eighteen to twenty-nine), including a 2013 study by Joe Karaganis and Lennart Renkema.¹²

The Digimarc and Nielson study revealed that 31 percent of people who downloaded illegally did so via open torrent sites such as Pirate Bay, 31 percent got the books via open cyberlockers like 4shared.com, and 30 percent got them from a friend via IM, email, or flash drive. The study also revealed that 44 percent of pirates also bought e-books legally. Perhaps the most interesting part of the study was the top answers pirates gave when asked why they downloaded e-books illegally: 58 percent said because it was easy, 51 percent said because it was free, 38 percent said it was because those same titles could not be found in bookstores, and 17 percent said because they did not think they should pay for content online. When asked what would deter them from pirating e-books, pirates gave a number of reasons, notably the following: (1) if they knew their computer was at risk; (2) if they believed they would be caught downloading; and (3) if it would harm the author, as they did not think it did. The report, however, estimated that illegal downloading cost the publishing market in the US alone \$315 million.¹³

In 2017, the UK government's Intellectual Property Office's study of online copyright infringement found that 17 percent of e-books were consumed illegally in the UK.¹⁴ That's about four million books. Organizations such as the Publishers Association in the UK see this as “4m books that authors and publishers aren't getting paid for,”¹⁵ even after such thinking faced backlash and has not been supported by any study that yielded specific results. According to research by Dutch firm GfK, only 10 percent of all German e-books on devices were purchased legally, with most being pirated.¹⁶ Further, “an e-reader in the Netherlands holds an average of 117 titles”; of those, only “11 were bought on legitimate websites.” In Russia, numbers are even higher: a whopping 92 percent

of Russian e-book readers “obtained their books illegally downloading the materials.”¹⁷

When the *Guardian* conducted a survey of its readers about piracy (ages twenty through seventy) in 2019, most users admitted they “regularly downloaded books illegally and while some felt guilty . . . the majority saw nothing wrong in the practice.” One user was quoted as saying, “Reading an author’s work is a greater compliment than ignoring it,” and others said that “it was part of a greater ethos of equality that ‘culture should be free to all.’” According to the same *Guardian* article, many respondents reported starting to pirate books during university years, when faced with bills for expensive textbooks. One reader said: “It’s not much different from buying from a secondhand bookstore. . . . Either way, the writer gets no money.”¹⁸

Further, overwhelmingly, most respondents to the *Guardian* survey owned up to pirating books not because of cost, but for ease. Doctors, accountants, and professionals who described themselves as well-off said they pirated books to “pre-read” them because they often felt dissatisfied with a book after a purchase. In other words, thanks to piracy they could read first, then buy. An eighteen-year-old who downloads e-book illegally was quoted in the same article as saying that paying for food and clothes made sense because they were physical things, which is different from e-books, adding, “I believe real life and the internet differ.”¹⁹ This thinking certainly points to a visible generational divide. Younger people perceive intellectual property found online as a right, not a privilege that needs to be purchased the same way physical objects are purchased. Digital natives (those born into technology), unlike digital immigrants (those who had to learn it as it came later in their lives), tend to view content online as belonging to everyone, regardless of its origin.

Similarly, when Good e-Reader polled 1,800 readers from around the world in 2018, asking them where they got their e-books, nearly 21 percent said from piracy. Other top sources included Amazon, iBooks, and Google Play Books, but the largest source was piracy. Good e-Reader also reported that was an increase of 12 percent from the study conducted only a year earlier.²⁰

What these studies have in common is that they point to several facts about piracy that seem obvious and self-evident: online piracy of e-books is rampant all over the world, not just in developing countries; it is definitely on the rise despite DRM measures by publishers and content distributors in the most developed countries, which have not been able to stop it from spreading; it includes people from varied backgrounds, even higher-income professionals; and it is most common among younger people (ages eighteen through twenty-nine), whose perceptions of access to

information differ from those of previous generations. The International Publishers Association has claimed that “over one billion dollars is lost worldwide to ebook piracy.”²¹ This is, of course, an estimate, as it has been difficult to pinpoint exactly how and if piracy translates into lost sales. The only thing that everyone seems to agree with is that piracy cannot be stopped.

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The central question surrounding piracy, of course, has been: How much does piracy hurt sales of print books and of legitimate online copies overall? In recent years, however, some have been reformulating this question to ask: Does piracy hurt sales at all, and if it does, what are the real, not perceived, reasons? Is it possible that it is helping more than hurting certain authors and titles, increasing their visibility worldwide and possibly even leading to increased sales? The fact remains, not enough research has been done to lead us toward definitive answers.

So far, the results of the studies focusing on music sales have been somewhat conflicting but leaning toward concluding that piracy did not have significant impact on physical sales. Some studies indicated that there was no significant effect, while others tried to show piracy as the enemy.²² On the book side, more studies are needed to gain a deeper insight into the matter, but the majority seem to indicate that piracy has no significant negative impact on sales of print books, or at least there is no solid proof that piracy and lack of DRM measures were directly responsible for a decline in print sales.²³

Reimers’s study, published in the *Journal of Law and Economics* in 2016, showed a 14 percent increase in e-book sales with certain anti-piracy measures in place, but the study did not cover watermarking (the most common form of DRM). It covered only searching for unauthorized copies of e-books on the internet based on metadata, such as filenames and book titles. In other words, the study did not really examine the effects of DRM but of very specific measures (such as delinking). In Reimers’s own words, “I estimate the effect of . . . private antipiracy effort on legal book sales. [In this case, “private” means that it involves the efforts of publishers, not public officials.] I use a novel data set consisting of monthly electronic ‘e-book’ sales of titles that are offered exclusively in electronic format by one publisher (RosettaBooks) and those titles’ weekly physical sales from January 2010 to December 2013. The data set includes the intensity level and success rate of protection from piracy over the same time period through Digimarc, a large piracy protection company.”²⁴

A 2008 study “done by consulting group Magellan Media Partners and a graduate student at New York University . . . which focused on titles from O’Reilly Media, found that it took an average of 20 weeks before a newly released title appeared on file-sharing networks” and that by then it had already found its way through the retail system. Magellan’s study “also found fewer pirated titles than expected.”²⁵

In her 2013 PhD dissertation, “Intellectual Property Strategy and the Long Tail: Evidence from the Recorded Music Industry,” Laurina Zhang found that removing DRM increased music sales by 10 percent but noted that “relaxing sharing restrictions” did not impact all albums equally and that removing DRM from albums increased the sales of lower-selling albums but did not benefit top-selling albums.²⁶ This leads one to ask: Could the same logic be applied to e-books? Could relaxing DRM on e-books increase the interest in backlist titles, which aren’t being sold anyway, at least not in any significant numbers? Science fiction publisher Tor/Forge, an imprint of Macmillan and Momentum, stated on its site in 2014 that removing DRM from its e-books did not hurt the business.²⁷ Tor editor Crisp noted in a post: “The move has been a hugely positive one for us, it’s helped establish Tor and Tor UK as an imprint that listens to its readers and authors when they approach us with a mutual concern—and for that we’ve gained an amazing amount of support and loyalty from the community.”²⁸ Crisp here was alluding to one major benefit of removing DRM from Tor’s e-books—it helped the publisher improve its reputation among readers and turned them into loyal supporters.

Likewise, when pirated copies of bestselling author Dan Brown’s *The Lost Symbol* appeared online soon after the book’s official release, the publisher did not seem anxious to launch a digital store for the book, seemingly because it did not believe that piracy would be a significant issue.²⁹ Dan Brown is, of course, one of the most popular fiction authors in the world, and his loyal following of fans would (and did, in fact) purchase print copies of his books.

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In 2013, the European Commission ordered a study (costing €360,000) on how piracy affects sales of various content, including books, music, movies, and games, in the European Union. As reported on Engadget in late 2017, the EU never showed it to the public “except for one cherry-picked section.” The author speculated that it was because the study, which was conducted by Dutch organization Ecorys, concluded that except for recently released blockbuster movies, there was no evidence that piracy affected sales

of copyrighted materials or that online infringement displaced sales.³⁰ In fact, the study showed that in the case of video games, piracy helped sales. The study was eventually made public (as a 300-page report) owing to efforts of EU parliamentarian Julia Reda, who filed a freedom of information request (under the EU’s Freedom of Information law). EU Commissioners used the results of the study to support claims that piracy impacts cinema ticket sales (4.4 percent on average), but it wasn’t until after the information request by Reda that the EU released the study to the public.³¹

Reda asked in her 2017 blog post, “Why did the Commission, after having spent a significant amount of money on it, choose not to publish this study for almost two years?”³² She tied this fact to the commission’s controversial proposal of requiring hosting providers to install content filters to surveil all user-uploaded content and challenged the commission’s claims this was necessary because of a “value gap,” a supposed displacement of value from licensed music-streaming services to hosting services like YouTube.

In their 2003 study, Haber and colleagues investigated to what extent DRM combated piracy and whether it could live up to expectations, concluding that DRM measures were, in fact, not effective at combating piracy. One reason was that if even a small fraction of users could transform content from a protected to an unprotected form, then illegitimate distribution networks were likely “to make that content available ubiquitously.”³³ Haber and colleagues identified two ways in which piracy can occur: (1) unauthorized acquisition (which occurs when a consumer obtains copyrighted content illegitimately, e.g., via peer-to-peer file-sharing services) and (2) unauthorized use (when a consumer obtains copyrighted content legally and then attempts to use it in illegal ways). As Haber and colleagues explained, a fundamental flaw in the debate around DRM has been that “it is often assumed that a solution to the second problem will solve the first as well.”³⁴

Haber and colleagues concluded that ordinary DRM was not able to prevent piracy and that legal attacks would probably never provide lasting relief because as soon as one pirate site is shut down, another one seems to pop up.³⁵ Indeed, many pirate websites cannot be shut down permanently because after one domain site is closed, another site just like it will appear under a different domain name. It is also not uncommon for such sites to post threatening legal language of their own directed at publishers and authors who try to stop them, showing no fear of possible consequences. This has been very frustrating for publishers investing significant resources in making sure those who engage in illegal activities online are held accountable legally. Former Google and EMI executive Douglas C. Merrill said during his keynote

address at 2011's CA Expo in Sydney, Australia that trying to sue people who download illegally from pirate sites was like "trying to sell soap by throwing dirt on your customers."³⁶

Clearly, investing in enforcing DRM practices and pursuing those who do not obey the law comes with a high price for publishers. "There is the cost of building, deploying and maintaining a DRM infrastructure, which will eat into whatever unrealized revenues are recovered." Further, DRM-protected content is economically less valuable than unprotected content as it doesn't reach nearly as many people as DRM-free content. In other words, "Deploying DRM will result in fewer sales of legitimate content, which also might offset some of the revenues gained by decreasing piracy."³⁷

In short, implementation of DRM in e-books sold to consumers worldwide has led to two unfortunate outcomes: piracy has continued to spread, and legitimate users have been discouraged and disappointed in the user experience.³⁸

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On the academic side of the publishing industry, the most notable influence on publishers' willingness to reconsider their DRM practices has been the spread of illegal downloading of academic articles, book chapters, and journals and the omnipresence of one site in particular: Sci-Hub. The self-proclaimed "first pirate website in the world,"³⁹ Sci-Hub provides mass and public access to tens of millions of research papers. In 2015, Elsevier filed a legal complaint in the US District Court for the Southern District of New York against Sci-Hub and its founder, Alexandra Elbakyan, naming sci-hub.org, the Library Genesis Project, and Elbakyan as defendants in a civil action seeking damages for copyright infringement and for violation of the Computer Fraud and Abuse Act. In October 2015, the court ruled in favor of Elsevier (but Elbakyan remains in hiding).⁴⁰ Sci-Hub has since gone through several domains, some of which have been blocked, but it remains the go-to place for research all over the world, even in the most affluent countries with the most comprehensive library collections.

Sci-Hub and its affiliated sites are not motivated by commercial gain, according to Elbakyan on the Sci-Hub homepage, but rather to remove all barriers in the way of science (and Sci-Hub does that by hacking actual university collections around the world). Here are some mind-boggling stats that get us to rethink DRM's power in combating piracy: the heaviest use of Sci-Hub apparently takes place on US and European campuses; the United States is the fifth-largest downloader; more and more academics donate papers

to Sci-Hub voluntarily; and hundreds of thousands of download requests are placed every day from millions of unique IP addresses.⁴¹

According to biodata scientist Daniel Himmelstein (University of Pennsylvania) and his colleagues, who investigated the impact of Sci-Hub, the pirate site currently provides access to more than two-thirds of all scholarly articles in the world. When asked what publishers could do to stop new papers from being added to Sci-Hub, Himmelstein said, "There are things they could do but they can really backfire terribly. The issue is, the more protective the publishers are, the more difficult they make legitimate access, and that could drive people to use Sci-Hub."⁴²

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If we closely examine how users who practice online piracy have been responding to attacks by publishers and content providers, we can get clues as to not only why they continue to engage in illegal activities but also why users—and, increasingly, even authors—believe they may, in fact, be doing more good than harm. Indeed, while piracy is omnipresent in the world of entertainment, the number of legal viewers is at a high as well. A good case in point: *Game of Thrones*.⁴³ While it was one of the most heavily pirated TV shows in history, it was also one of the most legally watched. When asked about piracy, David Petrarca, a director of *Game of Thrones*, pointed to piracy feeding the cultural buzz and allowing that kind of programming to survive in the first place.⁴⁴

Other positive effects of piracy include "sampling" (users like to sample books before deciding if they want to own them; Zhang's 2013 study confirmed this⁴⁵) and indirect appropriation (creating other opportunities for content creators as a result of massive exposure). Piracy has been shown to increase the demand for goods that are complementary to the pirated content.⁴⁶

In his online article "E-book Piracy Is Rampant and Impossible to Stop," author Derek Haines, who has published nearly twenty books, confirmed that every one of them had been pirated in some way, but admitted that pirate sites give him promotion: "I get extra Google Search listings, name and title recognition and occasionally, perhaps even real ebook sales as a result." He also makes a valid point about understanding that people who use peer-to-peer sharing to access free e-books are "hard-nosed, addicted chasers and collectors of anything and everything that is free," so they are highly unlikely ever to pay for anything.⁴⁷ This, of course, is a counterargument to the argument that piracy is a great tool for sampling before buying. There simply are people out there who

have never been purchasers and will continue to pursue books when and only when the books are available to them free of charge.

Author Viewpoints

Authors' reactions to DRM and piracy have been mixed. Some presumably favor DRM and require it as a condition for licensing their books to retailers. Others have fought to electronically publish and license their work through online e-book readers without DRM protection. Some of these authors are concerned that DRM is driving readers away while others object to DRM on legal and moral grounds. Some very well-known names are in this group of authors. To start, good examples are Cory Doctorow and Lawrence Lessig. Lessig wrote an entire book about his views on DRM, *Free Culture*, which he distributed under a Creative Commons license. Doctorow, whose young adult novel *Little Brother* spent seven weeks on the *New York Times* children's chapter books bestseller list, offers free electronic versions of his books on the same day they are published in hardcover. His belief has remained, and he has reiterated it time and again, that free versions of books, even unauthorized ones, entice new readers and that the writer's biggest fear should, in fact, be obscurity.⁴⁸

New York Times bestselling author Joanna Penn has identified three reasons why authors shouldn't worry about piracy: (1) serious readers prefer to buy books rather than download stolen copies ("Those who download from pirate sites are not likely to be your target market anyway."); (2) some authors use piracy as a marketing strategy (Paolo Coelho is a good example); and (3) there is nothing to be afraid of ("If you're not writing or publishing because you're afraid someone will pirate your books or your ideas, you might need to consider other issues." The question to ask here is: What are writers really afraid of?).⁴⁹

Doctorow has tirelessly campaigned for copyright liberalization and against governments' attempts to monitor the internet and has claimed that "corporate dinosaurs, big, dying institutions" use copyright to try to regulate technology, to criminalize all the peer-to-peer file sharing that is the "Internet's greatest achievement: lowering the cost of mass collaboration."⁵⁰

Literary giant Paolo Coelho has also perceived piracy as having more positives than negatives back when online piracy was in its infancy. After he deliberately leaked e-book versions of *The Alchemist* in Russia on piracy networks in 1999, sales of his print books went from one thousand to over one million per year. When *The Alchemist* was first published in Russia, it sold about a thousand copies out of its initial print run of three thousand, which made Coelho's Russian publisher drop the deal with the author. Coelho then

found an unauthorized digital copy of *The Alchemist* and posted it on his own website. A year later his book sold 10,000 copies in Russia. By 2002, sales hit one million. Today, according to *Forbes Magazine*, Coelho's sales in Russia are over 12 million. In an interview with *Forbes* in 2011, Coelho famously proclaimed: "The more people 'pirate' a book, the better. If the reader likes the excerpt of a book that he saw on the internet, he will most likely want to buy it the next day, as there's nothing more boring than reading from a computer screen."⁵¹ He once tweeted: "Some call this 'piracy.' I call it a medal to any writer who understands that there is no better reward than being read."⁵²

Coelho went so far in defending online piracy as to create the website Pirate Coelho, which to this day includes download links to his books (as of September 2019, the site included links to seven of Coelho's books). The famous author later claimed that as a result of the site's creation, his books continued to be sold more, not less, worldwide. When confronted by some critics who said that the tactics he's used have helped him but not struggling writers who had not yet made a name for themselves in the literary world, Coelho responded: "The truth is: a good story doesn't need to be protected. The rest is greed or ignorance."⁵³ Author Hugh Howey has also shared similar sentiments, inviting the industry at a BookExpo America conference in New York to see the good in what is otherwise unstoppable evil, adding that readers left good reviews of his books after stealing pirated copies, some even sending him PayPal and Starbucks gift cards.⁵⁴ And science fiction author Neil Gaiman has described piracy as a modern-day version of lending of physical book "because broader distribution means a broader audience and a broader audience means more sales."⁵⁵

Author of the mega-popular Harry Potter series, J. K. Rowling, has taken a completely different approach and had initially refused to make any of her Harry Potter books available digitally in any way because of piracy fears.⁵⁶ Rowling's refusal to make e-book copies available online didn't stop piracy. In fact, it may have encouraged it more, "because those who want a digital copy now only have the option of using an authorized copy."⁵⁷ Later Rowling's publisher did start offering e-versions of Harry Potter e-books, as mentioned in chapter 1, by coating them with heavy DRM (and using the watermarking method, which allows the publisher to track the copy of each pirated e-book copy to the source).

It is worth noting that not all authors can benefit from the positive effects of piracy. There is a vulnerable-to-piracy group among them, and they include authors of series of genre fiction. As reported in the *Guardian*, book one in a series does well, but book two is heavily pirated, "book three could end up dead in the water," and the authors have reported losing

contracts as a result. So it could well be argued that if piracy hurts anyone, it is the midlist authors and those who can barely make a living as authors, not bestselling ones, according to Guest's article in the *Guardian*.⁵⁸

No Easy Solution

As this issue of *Library Technology Reports* has shown, the strategies copyright owners have used thus far to combat piracy have, in many ways, failed. Pursuing those who break the law (by filing lawsuits and trying to shut down pirate sites) has not stopped new illegal sites from popping up all over the world (usually under a different URL). Likewise, using digital technologies via DRM schemes to restrict access has angered users worldwide and led to more frustrations, and possibly even more piracy. Lastly, lobbying for more restrictive laws also did not prove effective, as even the legislation passed in the United States (DMCA) and in the European Union (EU Directive) faced significant criticism and had to undergo revisions and modifications along the way as they faced their own internal contradictions.

In fact, what scholars and industry insiders have pointed to and uncovered over the last few years of studying piracy and the effects of DRM to combat it is that the more restrictions are put in place, the more piracy seems to spread. Some have also started to point to the positive effects of DRM-free content and even piracy, such as helping authors market their work, creating cultural buzz surrounding their work and reputation, leading authors to more opportunities in countries where they have little to no visibility, and, to a lesser extent, possibly even increasing sales. (This remains to be investigated further as very few studies have offered concrete examples and evidence.) That said, most agree that piracy should still be combated, but in sensible, logical ways that do not go against the current since the book industry has had time to learn its lessons during the past two decades.

So how does the industry catering to the masses who want to read online move forward? In 2003, Haber and colleagues proposed—and other scholars echoed the same conclusions after them, including Sudler in 2013—that the real solution to the piracy problem is largely nontechnical and that the most effective way to defeat piracy may be to compete with it, rather than to waste time and resources trying to shut down other websites.⁵⁹ Haber and colleagues proposed several ways in which the content and IT industries might extend their offerings to compete with (rather than combat) piracy, which still matter today:⁶⁰

- Quality of distribution (Legitimate distributors can offer consumers higher quality service.)

- Quality of content (Content on pirate sites is often poorly sampled, and there is a real threat of viruses present.)
- Infrastructure (Legitimate content distributors might arrange new partnerships with infrastructure providers, e.g., with mobile phone providers, to ensure cheap and easy access to content.)

Others have also argued that if the public were given an easier way to obtain files, piracy would be discouraged.⁶¹ In other words, Masnick, too, alluded to fighting piracy by focusing on what is broken in it: pirate sites are usually vulnerable to virus attacks, quality of files is not always good, and quality of user experience is inferior. Masnick expanded this argument further in 2009 when focusing on the industry's response to piracy, versus piracy itself, as the real problem: "The best way to fight piracy? Get e-book shoppers accustomed to buying from legitimate sources before it's too late. That means easy downloading, fair prices and the ability to move content easily from machine to machine within a household. Use of the standard ePub format and the end of traditional DRM could go a long way in that regard."⁶²

In his 2012 paper, Sudler explained this argument as follows: "Online piracy solutions under the new ecosystem involve finding methods and technologies that increase the value of legitimate assets compared with their pirated copies."⁶³ Sudler pointed to several models as possible solutions that would benefit industries in the face of piracy, all requiring a shift in perception on the part of publishers, which must step into uncharted waters to learn the outcomes of experimenting with new approaches. "The solution to piracy lies neither in imposing draconian methods that seek to eradicate the problem altogether, nor simply resigning ourselves to runaway conditions. Rather, the answer rests in combining appropriate technologies with new business models designed for the new supply chain ecosystems."⁶⁴

Indeed, the changes that have been implemented (such as laxer DRM) by some publishers and content providers have gone a long way. In recent years, a wide range of alternative business models have been introduced to the market, as well as new methods for charging for access to content, including affordable subscription services (like Scribd) and a plethora of affordable e-books for purchase in various online stores (including Amazon). The user experience, too, has improved, as publishers and content providers started to look for new ways to give users easy access without forcing them to crack the DRM so that they could use e-books on various devices. There has certainly been more flexibility in that regard. Although companies such as Amazon and Apple remain loyal to their proprietary approaches, they, too, have modified their ways in some respects.

The fact remains, however, that piracy is still widespread and DRM systems are still and may always be vulnerable to hacking. According to Kozlowski, the only uncrackable e-book format is from Amazon (KFX), since Amazon makes it impossible to read its books in any other reader (and this includes free books that previously had no DRM, such as those out of copyright).⁶⁵ Piracy has proven to be a greater problem for publishers than expected and solutions will require more than using DRM.⁶⁶

Another fact: it is the publishers, first and foremost, that need the most encouragement and convincing (even more than bookstores and online retailers) that DRM is doing more harm than good to their businesses. “In order to succeed as a thriving industry, publishers and retailers should not try to control customer actions, but rather adapt and adopt policies that work with current and emerging technologies.”⁶⁷ It has been their fear of the fall of traditional publishing that has driven them to negotiate higher prices for their e-books (in many cases as high as their print counterparts) and implement DRM, and it is therefore the publishers that may be to blame the most for keeping the industry stagnant on the e-book front. The key to a way forward is to continue taking a proactive, rather than a reactive, approach to using current technologies in a way that “balances rights and needs of both consumers and authors.”⁶⁸

And, according to copyright watchdog company Attributor, pirate sites shouldn’t be the only ones blamed either, but also the various advertising networks that “most of these sites use to make money by showing ads on the downloaded pages of ripped books,” proposing that the so-called ad network, which includes giants like Google and Yahoo, “should withhold a percentage of the money they would pay to the site’s operator and give it to the book’s copyright holder instead.”⁶⁹

All these revelations show, in fact, that we have created the monster together and that it will take a village to propel the book and content industry forward in ways that harm no one, especially not those without whose creation and labor (authors and publishers) there would be no reason for DRM or pirate sites to exist. As Zimmerman pointed out in 2011, “When all you have is a hammer, everything starts to look like a nail.”⁷⁰ And this has often been the rhetoric behind the publishers’, retailers’, and users’ actions. If DRM is indeed not the solution moving forward—at least not to the extent that publishers are willing to put down their hammers—is piracy the problem or perhaps the catalyst that will lead to a new world of possibilities? In his 2011 paper, Zimmerman took us back to medieval times and reminded us that Gutenberg’s invention, the movable type printing press, was first perceived by the monks (who produced books manually in monasteries) as a “devil’s engine.”⁷¹ Today,

Gutenberg’s invention printing press is considered one of the greatest inventions of the history of mankind.

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