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Lightning in a Bottle

On January 18, 2012, the English language version of Wikipedia went dark. Instead of the usual homepage, visitors found an ominous warning cast against a dark gray background. The site warned:

> For over a decade, we have spent millions of hours building the largest encyclopedia in human history. Right now, the U.S. Congress is considering legislation that could fatally damage the free and open Internet. For 24 hours, to raise awareness, we are blacking out Wikipedia. Learn more.

In addition to linking users to a page with more information, the Wikipedia homepage also urged visitors to contact their elected representatives and included a box for looking up the representatives' contact information via the visitor's ZIP code. Wikipedia is the sixth most-visited site in the world, and it enjoys the same lofty ranking in the United States,[1] so this dramatic message on its homepage caught the attention of millions of people – a message that was amplified by near-universal news coverage of the blackout. Wikipedia was one of more than 115,000 sites that participated in spreading the message against this legislation.[2] Many others also blacked out their sites to illustrate the argument that the proposals, if passed, could lead to the censorship of legitimate, worthwhile content. Other sites did not go dark but instead used their homepages to further help spread the message. Most prominently, this included Google, the most-visited site in the world and in the United States. The search engine was still available, but the homepage featured a black banner over the Google logo and, under the search box, the plea that visitors "Tell Congress: Please don't censor the web!"

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[1] Throughout this study, site rankings are reported based on rankings at Alexa.com and are current as of June 12, 2012.
[2] Fight for the Future, "January 18 Blackout."

These sites were mobilizing in an effort to stop two bills, the Stop Online Piracy Act (SOPA) in the House, and the very similar PROTECT-IP Act (PIPA) in the Senate. The goal of each bill – both of which are discussed in detail in Chapter 11 – is to shut down foreign sites that are accused of criminal copyright infringement. If a site is managed in the United States, copyright holders or prosecutors can simply pursue them for copyright infringement; for sites run by those outside the United States, however, it is not so simple. The bills were designed to get around this problem by trying to make it harder for foreign infringing sites to maintain business relationships with U.S.-based businesses, as well as make it harder for them to communicate with U.S. audiences. If the bills became law, copyright holders or administration officials could seek a court order requiring advertisers and financial services providers to sever connections with specific foreign sites. Because this would result in a list of sites that are off-limits to these domestic actors, the bills have been widely described as creating a blacklist of forbidden sites. More dramatically, the bills also would have attempted to scrub blacklisted sites from the domestic internet. This would have been accomplished in part by forbidding internet service providers (ISPs) from translating the domain names of these sites into the numeric address of the computer that is hosting the site's content, as well as preventing search engines from linking to blacklisted sites. This attempt to create an internet blacklist was viewed by many as censorship and thus profoundly un-American and against the ethos of the internet. Motivated by this view, they sought to use the internet to spread this message, and it worked beyond their wildest dreams.

On that day in January, in response to the blackouts and calls to action on sites across the internet, millions of American voters contacted Congress to demand that SOPA and PIPA be shelved. More than ten million people signed petitions in opposition, more than eight million tried to call Congress, and more than four million sent e-mails.[3] Phone lines at many congressional offices were jammed. Many members' web pages were so swamped with traffic that they went down. This day of action – often called the SOPA strike or SOPA blackout – became the "largest online protest in history."[4] This tidal wave of online action

[3] Ibid.
[4] Boonsri Dickinson, "The Largest Online Protest in History Started Here," *Business Insider*, January 19, 2012, http://www.businessinsider.com/largest-protest-in-history-started-here-more-than-a-billion-people-will-see-anti-sopa-messages-2012-1.

happened over proposed reforms in copyright law, a subject that just fifteen years ago was of little interest to the general public.

The members of Congress certainly took notice. Before the SOPA strike, the House and Senate bills both seemed very likely to pass. Powerful members of both parties, in both houses of Congress, were shepherding the bill through at the fastest speed they could muster, and the handful of representatives and senators who opposed the bills seemed poorly positioned to stop them. When the blackout began, the bill had nearly three times as many supporters as opponents in Congress; by the end of the day, it had nearly twice as many opponents as supporters, including several former co-sponsors who had switched their positions.[5] In the days that followed, dozens more members piled on to the opposition tally. By January 20, just two days after the strike, House and Senate leadership announced that the bills were being shelved indefinitely. The internet had spoken, and Congress had listened – both in nearly the most dramatic way possible.

With some noteworthy exceptions, the news media has not really captured the essence of the SOPA strike: who organized it, how it happened, or what it says about politics in the internet era. On all three counts, mainstream reporting generally failed to grasp the central role played by nonprofit groups. This is disappointing, especially because nonprofit information policy advocacy groups, particularly Public Knowledge and the Electronic Frontier Foundation (EFF), have regularly appeared in mainstream news outlets over the past ten years. Yet it is also explicable because of the commonly held, simplistic understanding of the copyright debate as a fight between Hollywood and Silicon Valley – that is, just another fight between corporate sectors with competing interests. In this view, copyright is used to determine the split of revenue between sectors in the digital economy, such as much of Pandora's revenue goes to record labels and songwriters and how much the webcaster gets to keep. In this view, the debate over copyright is really about who will have the upper hand during the contract negotiations that will determine which vendors can carry which media works, in which formats, and at what prices. If we take this view to its logical conclusion, disputes over digital copyright are just part of the process of dividing the spoils as the internet calcifies in its role as the ultimate for-profit entertainment medium – an on-demand

[5] Josh Constine, "SOPA Protests Sway Congress: 31 Opponents Yesterday, 122 Now," *TechCrunch*, January 19, 2012, http://techcrunch.com/2012/01/19/sopa-opponents-supporters/.

cable network with three thousand channels, albeit with an appendage of millions of public access shows.

The view of copyright as a fight between corporations – and the implicit view of the internet's future as inexorably ever more corporate – is woefully inadequate. For the millions who participated in the SOPA strike, the internet is and should continue to be much more than a means for delivering approved corporate media content to relatively passive audiences. These digital activists may indeed like Google and Apple much more than they like BMI and News Corporation, but they were hardly doing Google's bidding. If copyright really were a war between new and old media corporations, and Google had asked previously uninterested users to help it to win the war, user participation would have been modest to nonexistent. Instead of millions, it might have gotten tens of thousands to respond. More fundamentally, if the dispute really were primarily of interest to and between corporations, Google never would have used its homepage to reach out to voters in the first place. It would have continued its strategy of inside-the-Beltway advocacy, where it and its allies are woefully outmatched by the content industries, and something like SOPA would have passed into law.

This book is not primarily about the SOPA strike and the fallout that resulted; that would require another book, which thankfully is under development with a partial draft already available online.[6] It is about the political history of and debate over digital copyright regulations, from the late 1980s to early 2012. I do discuss the SOPA strike and related issues in some detail in Chapter 11, but that is just part of the larger story I tell. Most of the book's research and writing were completed before the strike even happened. It turns out, though, that the story of this book is what is missing from the oversimplified explanation of those remarkable events. Without setting out to do so, I have written a book that helps demystify the SOPA strike, providing the context for understanding what was otherwise a somewhat inexplicable internet revolt. I began the research for this book in 2006, believing that internet advocacy around copyright is interesting and important – both for how it was reshaping the politics of copyright and for what it says about online advocacy more generally. Six years later, events on the ground buttressed that belief, following it with quite an exclamation point. This book is not an explanation of the SOPA strike; rather, the SOPA strike

[6] Engage and Demand Progress, eds., *Hacking Politics*.

is a much stronger validation of this book's central claims than a scholar should have any right to expect. It just so happens that the book also offers a lot of what is missing from the collective understanding of those events.

Online advocacy has profoundly reshaped the copyright debate, and these effects were reasonably clear well before SOPA was even proposed. The impact of online advocacy in the copyright debate offers important lessons for both the future of copyright and for online advocacy more broadly. Before further developing this thesis, it is essential to begin with the basics of the copyright debate and the specific slice of that debate that I have chosen to study. It is also important to discuss some of what has already been said about political advocacy. This study incorporates an unusual combination of research strategies, including both political, historical case studies of specific debates, as well as quantitative measurements of how well each coalition was represented in Congress, in newspapers, and on the web. With such a diverse mix of research strategies in play, these will also require a brief explanation. After that, I lay out the roadmap for the rest of the book.

THE COPYRIGHT DEBATE: AN OVERVIEW AND A NARROWER FOCUS

Copyright is a government-granted monopoly on the right to reproduce, distribute, and make certain other uses of mediated works of creative expression. Copyrightable works include examples such as books (fiction or nonfiction), movies, sheet music, recorded music, paintings, drawings, and software programs. Each of these is a kind of information good – a product in which the information embedded in a physical medium has value above and beyond the value of the medium itself. A good book is worth more than the paper and ink of which it is made; the extra value is the value of the information contained in the book. The problem with information goods is that they do not obey the laws of economics that apply to most other types of goods, from a bag of sugar to a parcel of land. If I take your sugar, you no longer have it. If I squat on your land, you no longer have unfettered use of it. Yet if you write a book and I make photocopies of that book without paying you, you do not lose your copy. If the cost of photocopies at the local copy shop is lower than the retail cost of the book, the copy shop and I come out ahead, and you, the author, have lost out on a potential benefit.

What Copyright Is For

If it were not for copyright, there would be little if any basis in law to stop anybody from making endless copies of popular works, selling them cheaply, and undercutting the official versions. In this way, those who produce the very information that makes these goods more valuable than the media that contain them – legally speaking, "authors," whether the creativity in question is written or not – would have fewer financial incentives to make new works. There are many ways one can solve this problem, from charitable and government subsidies for information production (a key driver in the production of scientific knowledge) to advertisements embedded in works. Copyright law is another system for solving this problem. It allows authors (or the publishers who buy or license their works) to decide how many copies of a work will be produced, how these will be distributed, and (to a large extent) what the price will be. As in all monopolies, the monopoly of copyright gives the copyright holder the ability to set prices above the cost of producing the next unit. If my grocer tries to charge $50 for a bag of sugar, I can go elsewhere, but if Stephen King and his publisher decide that his next novel will cost about $50, only those who are willing to pay that price will get the book. Even at the much lower prices one does pay for popular novels, the cost of production and distribution is substantially lower than wholesale price – much more so than for a bag of sugar. Although a good portion of this extra difference goes to marketing and other expenses, another (hopefully substantial) portion goes to the author.

Copyright creates a space between the pricing model for sugar and the pricing model for creative works. It now costs tens or even hundreds of millions of dollars to make a major movie. For instance, it cost roughly $220 million to make the 2012 blockbuster *The Avengers*. That cost was spent to make the very first copy of the film. Compared to that investment, the cost of each subsequent copy – even the celluloid copies used in theaters – is little more than a rounding error. The same is true for the cost of an individual CD versus the cost of recording an album, the cost of an installation DVD versus the cost of creating a major (proprietary) software program, and the cost of printing a copy of a book versus the untold hours an author spent writing it. The cost of a bag of sugar is and should be about the cost to produce, distribute, and sell that specific bag of sugar, hopefully with a small profit for everyone who helped your morning coffee taste a little better. In contrast, if it is to be sold in a for-profit marketplace, the cost for a copy of a creative work

has to be much higher than the cost of delivering that specific copy. Otherwise, *The Avengers* never gets made, *David Copperfield* never gets written, and the world loses out on valuable culture. In terms of why we have copyright, then, Charles Dickens and Joss Whedon are in the same boat. In terms of the ease of copying in each one's respective era, however, the differences are staggering.

Debating Copyright in the Digital Millennium

The internet is a worldwide, distributed network for transmitting copies of data – that is its very purpose. The mass adoption of the internet has thus inspired many in the public sphere to reassess the goals and ideal strategies for copyright law. On one hand, many have portrayed the internet as a profound threat to copyright because of sharply increased ease of infringement and difficulty of enforcement; to the extent that technology makes copying easier, they argue, we need to make copyright that much stronger.[7] Those who advance this position point to the hundreds of thousands of dedicated professionals who make up the cultural industries today, as well as the often high quality of their work. On the other hand, many have argued that the internet greatly accelerates the communication power of information producers whose incentives do not require copyright protection, highlighting the need for a temperate copyright system that can fuel these information producers' legal access to information inputs.[8] Those who take this stance also have their heroic examples of producers of quality works. A favorite example is the computer programmers who have built free/open source software tools such as GNU/Linux and Firefox, as well as many less well-known applications and protocols – including nearly every core technology that makes the internet go. Other favorite examples include the untold thousands of contributors to the free online encyclopedia Wikipedia, as well as the scholars and librarians who produce and curate research in the sciences and the humanities.

To some extent, this debate boils down to a debate over how best to balance the interests of a diverse set of constituencies. On one side are the companies, institutions (such as university presses), and individuals that sell copyrighted works as their primary means of generating income. This group places tremendous emphasis on the commercial markets in copyright-protected works that work well for incentivizing the production and circulation of information and culture. On the other side

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[7] Boyle, *Public Domain*, 54–82.   [8] Benkler, *Wealth of Networks*, 41–58.

are the individuals, institutions (such as schools), and companies that
primarily produce and disseminate culture and knowledge for incentives
other than the sale of copyrighted works in the marketplace. This group
generally has a net interest in less copyright protection and a wider berth
for the exceptions and limitations that make their work cheaper and eas-
ier, so they will emphasize the points in the media system where copyright
is unnecessary or counterproductive. Of course, it takes the whole cast of
characters to create the total of our cultural and scientific heritage today –
some of the best and most important of which depends on copyright-
protected markets, and some of which does not.

Although nearly every sector in the information ecosystem can con-
tribute value, however, not every sector's voice carries equal weight in
Congress. Historically, the commercial media sectors have dominated the
policy discussion, and policy outcomes have reflected this dominance.[9] It
was in the context of this political dominance by the commercial media
sectors that Congress first sought to adapt copyright law to the digi-
tal media era. In particular, those who support stronger copyright law
as a response won the day repeatedly in Congress in the 1990s, rack-
ing up legislative victories such as the 1992 Audio Home Recording
Act (AHRA), the 1997 No Electronic Theft Act, and the 1998 Digital
Millennium Copyright Act (DMCA).[10] By the late 1990s, policymakers
and media industry advocates were expressing particular concern about
the possibility that the internet would enable infringement. Yet the laws
they passed in response to this concern failed to stop widespread online
infringement, which spiked especially with the 1999 launch of the peer-
to-peer service Napster.[11] The record industry fought back with waves of
litigation against infringing end users, but this did not even slow down –
let alone stop – online infringement. To this day, millions still trade illicit
files. In light of this continued infringement, those in the "strong copy-
right" (or SC) coalition – copyright holders and their political supporters –
call for a response of ever-stronger copyright. On the other side, those
in the "strong fair use" (or SFU) coalition oppose copyright's expansion,
support a widening of copyright exceptions (such as fair use), and invoke
the cause of internet freedom. Members of the SFU coalition include
scholars, librarians, educators, nonprofit advocacy groups such as the

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[9] Litman, *Digital Copyright*.
[10] To reduce note clutter, statutes and cases are generally referred to in text only and listed
    in the bibliography.
[11] Alderman, *Sonic Boom*.

EFF and Public Knowledge, and a few allied policymakers. Their heavy reliance on internet communication inspired this study.

Focusing In: Digital Rights Management

The copyright debate revolves around many topics, so, in conceiving this study, I chose to focus on one in particular: the regulation of digital rights management (DRM). A DRM system is an attempt to use digital technologies, such as encryption, to build a heightened degree of copyright holder control into digital media. Broadly speaking, this will generally fall within one of two business models. First, when applied to physical media, DRM is largely designed to help tether the data to the copy in a way that mirrors the experience of the analog era. For instance, the encryption on motion picture DVDs is a DRM system that keeps most users from "ripping" their DVD collection – copying the data to their computers for later replay. Thanks to the DRM, the data on the DVD are, for most users, tied to each disc. In contrast, music CDs are unencrypted, so many if not most computer users rip all their CDs; for music CDs, the data are quickly untethered from the physical copies. Thanks to a few clever users, there are also several applications to rip DVDs; users who want their movie data untethered from their discs can do so. Copyright law was amended with the goal of discouraging the distribution of such tools; the 1998 DMCA includes anticircumvention provisions[12] that, among other bans and regulations, render such software illegal.

In addition to tethering data to physical media, DRM is also used in media distribution systems that did not exist in the analog era. This includes, for instance, the market for movies streamed over the internet. If a movie-streaming service was set up simply to transmit the data to customers with no control or restrictions on how customers could then use the data, it would have a nearly impossible task finding movie studios willing to deliver enough content to make such a service attractive. So movie-streaming services build their systems so that it is reasonably difficult for end users to keep the data rather than merely watching the films. As long as the DRM system is mostly seamless, users are often more excited about new services than upset that there are limitations built in. As such services have become the norm – and as these have mostly had the DRM go reasonably smoothly – their built-in digital restrictions have become commonly accepted.

[12] 17 U.S.C. §§ 1201–1204.

For a period of nearly two decades – roughly 1989 to 2006 – the debate over DRM was the most significant, regularly recurring single issue in the debate over the future of copyright. For that period, members of the SC coalition generally believed that, to manage the problem of infringement via digital technologies, the best strategy would be to use yet other digital technologies and to give these limiting technologies the force of law. Their policy strategies reflected this belief. The DMCA was and remains the most politically significant embodiment of this strategy because it gives the force of law to any DRM system that copyright holders introduce into the marketplace. Other proposals sought to deal with circumstances in which copyright holders could not initially introduce restricted formats. The first was the proposal that became the 1992 AHRA, which required a specific type of DRM that limited the copying capabilities of what was then an exciting new technology: stand-alone digital audio recorders, such as digital audio tape (DAT) decks. After the DMCA, several other DRM-related proposals received some consideration, but the one that came closest to becoming law was a failed attempt to mandate a technology known as the "broadcast flag." The system sought to limit what viewers could do with recordings of digital TV broadcasts – and, in a related proposal, radio broadcasts.

One other important DRM-related proposal was discussed, but this one was advanced by the SFU coalition. They sought to reduce the reach of the DMCA's anticircumvention provisions. The DMCA prohibits most circumvention of DRM, even if the intended use is noninfringing – meaning that it would otherwise be legal under copyright law. Representative Rick Boucher (D-VA) and congressional allies proposed allowing circumvention for noninfringing purposes – such as teaching, research, and personal use – and allowing some development and sale of circumvention devices. These proposals garnered a major push from sympathetic members of Congress during the sessions from 2003 to 2006, a clear sign of the SFU coalition's increased political capital. Although these proposals were rebuffed, the SFU coalition's heavy use of internet advocacy at least gave them a fighting chance.

Along the way, and in the years since, there have been other key political developments and policy proposals. I tackle what I view as the most important of these to provide a fuller picture of the copyright debate. As promised from the outset, I tackle SOPA, PIPA, and related policy proposals. I would also be remiss not to discuss the birth and growth of Napster, the industry lawsuits and public backlash that followed, and some of the other developments that came (or at least started) between