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EXPLAINING CRIMINAL SANCTIONS IN INTELLECTUAL  
PROPERTY LAW

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IRINA D. MANTA<sup>†</sup>

*This symposium piece first seeks to unpack the relationship between intellectual property infringement and property offenses, and then to understand how the connection between the two has informed when the former is criminalized. The piece examines the porous nature of the boundary line between intangible and tangible resources, showing the at-times uncomfortable fit of the non-rivalrous label to intellectual property. An analysis of the respective harms of the two types of violations follows. This symposium contribution shows how lawmakers have treated patents differently from other forms of intellectual property by choosing not to criminalize their infringement, due both to utilitarian reasons and public choice rationales. While historically the entities who pushed for harsher sanctions for copyright violations in particular have often not encountered resistance, a combination of large tech companies' and grassroots organizations' activism has thwarted attempts at strengthened enforcement in recent times. The political landscape of copyright lawmaking, however, may be on its way to the greater degree of equipoise between support and opposition to greater sanctions that one observes in the patent legislative context.*

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<sup>†</sup> Visiting Professor, St. John's University School of Law; Professor of Law and Founding Director of the Hofstra Center for Intellectual Property Law, Maurice A. Deane School of Law at Hofstra University; Yale Law School, J.D.; Yale College, B.A. I would like to thank for comments Dmitry Karshedt as well as the participants of the symposium of which this piece is a part, of the Eighth Annual Tri-State Region Intellectual Property Workshop at the New York University School of Law, and of the Intellectual Property in the Trees workshop at Lewis & Clark University Law School. I also owe a debt of gratitude for support to the St. John's University School of Law, and the Maurice A. Deane School of Law at Hofstra University and its faculty workshop, as well as to my research assistant Matthew Nevola.

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#### INTRODUCTION<sup>1</sup>

The criminal law is frequently a last resort when other methods of resolution have failed. When an individual engages in anti-social behavior, his victim and bystanders might begin by reasoning with him one-on-one. As a next step, the community would take measures, a mixture of carrots and sticks, perhaps involving ostracism. If the problem is of sufficient gravity, the civil court system might intervene, providing a forum for the victim to seek official redress in the form of making the perpetrator cease his behavior and, in some cases, provide reparations for past wrongs. Punishing crime is expensive and forces the government, and hence the public, to pay in exchange for greater safety, retribution, and deterrence of both the specific offender and potential future wrongdoers.

We traditionally associate criminal law with offenses that involve the use of force against people and things. If you try to kill me, it would likely be unwise for me to rely on trying to reason with you afterwards or assume that ostracism alone will prevent you from doing so in the future. While a monetary fine might provide some reparation to me, it is unlikely to do so fully, and the fear of such fines may not be enough to assure society that you will not come after me or another potential victim down the line. The same is true for many property-based offenses. After all, every time you consider stealing something, there is

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<sup>1</sup> Portions of this piece have been adapted from Irina D. Manta, *The Puzzle of Criminal Sanctions for Intellectual Property Infringement*, 24 HARV. J.L. & TECH. 469 (2011) [hereinafter “Manta, *Puzzle of Criminal Sanctions*”] and Irina D. Manta, *The High Cost of Low Sanctions*, 66 FLA. L. REV. 157 (2014).

a chance that you will not get caught. So you may well conclude from a cost-benefit calculation that you may as well give it another shot and pay a fine the percentage of the time that you do get nabbed. At the end of the day, as criminal law scholar Erin Sheley summarized in short, “[b]oth criminal and tort law can be said to redress a form of wrong.”<sup>2</sup> The criminal justice system relies on a mix of retribution, denunciation, utilitarian, and other moral factors (some of which stand in tension with each other).<sup>3</sup>

Turning our attention to intellectual property offenses specifically, the rationale for criminal sanctions in that area—which are available for some forms of infringement in copyright, trademarks, and trade secrets—is not immediately obvious. The need for a legal rather than extra-legal response is, in itself, not a mystery. Intellectual property infringers often have little to no direct interaction with their victims, and so interpersonal negotiations or community responses would generally not yield much by way of redress. It therefore makes intuitive sense why an IP owner would need to turn to the civil court system for help. Why would legislators, however, at times enact criminal laws to respond to this kind of non-violent offense? The answer turns on both utilitarian factors and the public choice landscape of U.S. politics. To understand both of these facets, it is useful to begin with an examination of how analogies to property offenses have historically led to the criminalization of some forms of intellectual property infringement.

Part I of this symposium piece explains the relationship between intellectual property infringement and property violations such as theft, which includes a discussion of the relative harms that different kinds of infringement impose as compared to the harms inflicted as connected to tangible property. Part II shows why patents have been treated differently in the context of criminal law, both as a matter of utilitarian concern and public choice rationale. Part III discusses what happens when intellectual property owners, such as in the case of copyright, push too far and eventually a popular backlash results. The piece ends in a brief Conclusion section.

## I. INTELLECTUAL PROPERTY INFRINGEMENT AND PROPERTY OFFENSES

This Part describes the development of the concept of theft as it applies to intellectual property infringement. It then analyzes the harms

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<sup>2</sup> Erin L. Sheley, *Tort Answers to the Problem of Corporate Criminal Mens Rea*, 97 N.C. L. REV. 773, 812 (2019).

<sup>3</sup> *See id.* at 812-813.

of intellectual property infringement to advance a clearer understanding of the ways in which that label does or does not fit, and how there may be more applicable analogies in the realm of property law violations. Examining property offenses in a more nuanced way shows that intellectual property and its infringement may transcend the usual binary of rivalrousness or lack thereof. A broader understanding of rivalrousness than one based on mere physical use allows for goods and their infringement to lie on a spectrum of rivalrousness. Offenses such as vandalism and trespass have implicitly long recognized the possibility of that spectrum.

#### A. *How the Intellectual Property Infringer Became a Thief*

Defining even the theft of *tangible* property turns out to be remarkably fraught in the first place. Legal dictionaries speak of the “felonious taking and removing of another’s personal property with the intent of depriving the true owner of it.”<sup>4</sup> Problems abound in understanding what makes property someone’s own (that which may not be stolen, is the circular answer), what it means to take it, how we determine intent in this context, and what form of deprivation qualifies. Regardless of these theoretical problems, ancient societies felt little compunction punishing theft, which they perceived as an attack against God’s will and for which they were willing to award the death penalty.<sup>5</sup> While most countries have eliminated the death penalty for acts involving deprivations of property,<sup>6</sup> they have retained a variety of other harsh criminal punishments such as imprisonment.

The application of similar principles to intangible resources both accompanied and reinforced in turn the propertization of IP. As intellectual property increased in value, often much outpacing in the business context what the brick-and-mortar assets were worth, the stakes grew higher around IP infringement as well as around the regime addressing its deterrence and punishment.<sup>7</sup> Once the barrier had been cleared to use criminal sanctions in this context, the question regarding its particular applications changed from “whether” to “when”. This has, to some extent, paralleled the general expansion of criminal law in the punishment of

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<sup>4</sup> BLACK’S LAW DICTIONARY 1615 (9th ed. 2009).

<sup>5</sup> See, e.g., Richard A. Epstein & Thomas P. Brown, *Cybersecurity in the Payment Card Industry*, 75 U. CHI. L. REV. 203, 204 (2008).

<sup>6</sup> China remains an exception. See, e.g., CORNELL CENTER ON THE DEATH PENALTY WORLDWIDE, DEATH PENALTY DATABASE: CHINA (2014), <https://www.deathpenaltyworldwide.org/country-search-post.cfm?country=China>.

<sup>7</sup> GERALDINE SZOTT MOOHR, JACQUELINE LIPTON & IRINA MANTA, *THE CRIMINAL LAW OF INTELLECTUAL PROPERTY AND INFORMATION: CASES AND MATERIALS 2D* (2016).

property-related offenses, where the list of actionable violations transitioned from violent crimes like robbery to non-violent ones like larceny.

Intellectual property infringement does not meet the strictest dictionary definitions of theft because an IP owner is virtually never completely deprived of a good. That owner's complaint tends to be that her intangible goods have experienced an often-significant reduction in value as a result of the infringement rather than that she has lost the ability to use the goods in a literal sense. I have argued that this strengthens the case for an understanding of intellectual property infringement as vandalism (defined as an act that involves some degree of damage to the property) or trespass (in cases of unauthorized access that did not necessarily result in damage) rather than theft.<sup>8</sup> Suffice it to say here, however, that an understanding of intellectual property infringement as some form of property offense—whatever the particular offense may be—contains the elements of basic legitimacy, and that arguments against the use of criminal sanctions in the context of intangible goods would do better not to place overly great reliance on the distinctions between IP and property.

Indeed, as I and others have argued, even the old chestnut that characterizes intellectual property as non-rivalrous does not hold up to closer scrutiny.<sup>9</sup> The traditional definition of non-rivalrousness as pertaining to things that cannot be used by two people simultaneously is unhelpfully formalistic. The real question which we have to confront in daily life is whether one person's enjoyment of a good conflicts with another's enjoyment. As a matter of utility, be it economic, hedonic, or of any other sort, that is ultimately the relevant consideration. Once one accepts that definition, many different examples in intellectual property come to mind that involve no physical inability for a good to be shared, but rather a conflict in its enjoyment. For one, this can occur in the context of luxury trademarked goods.<sup>10</sup> Wearing a Gucci purse feels less special if too many people have one (worse, at some point one may be mistaken for a user of counterfeit goods oneself—which is very different from the image many Gucci purse wearers want to portray).<sup>11</sup> In the copyright context, the distribution of a surreptitiously-made recording of an

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<sup>8</sup> See Irina D. Manta & Robert E. Wagner, *Intellectual Property Infringement as Vandalism*, 18 STAN. TECH. L. REV. 331 (2015).

<sup>9</sup> See Irina D. Manta, *Keeping IP Real*, HOUSTON L. REV. (forthcoming) (on file with author); Manta & Wagner, *supra* note 8, at 338; James Y. Stern, *Intellectual Property and the Myth of Nonrivalry* (on file with author).

<sup>10</sup> Pub. L. No. 98-473, tit. II, ch. XV § 1502(a), 98 Stat. 2178-79 (codified as amended at 18 U.S.C. § 2320 (2006 & Supp. 112008)).

<sup>11</sup> See Irina D. Manta, *Hedonic Trademarks*, 74 OHIO ST. L.J. 241, 248-49 (2013).

exclusive concert at the Met potentially detracts from the experience for which live spectators paid dearly.<sup>12</sup>

This goes much beyond the case of luxury trademarked goods and their copyright equivalents, however. One of the charges made explicitly or implicitly against those who rail about illegal streaming/downloading of their intellectual property, be it in the form of songs or movies or the like, is that they are greedy. As long as some people buy goods legally, does it really matter that *Game of Thrones* episodes are routinely streamed without payment? The answer is two-fold. First, illegal streaming or downloading can have a tendency to snowball. Many users who would normally stream for payment may become resentful of doing so when others receive the good for free. The legal users may in fact feel like they are not just subsidizing free-riders, but that they are paying much higher prices than they would but for the illegal streamers. The underlying theory is that at least some of the illegal streamers would pay for *Game of Thrones* if the choice was between paying and not watching the episodes at all. The money that this set of users refuses to pay can drive up prices for what is left of the population that streams legally.

The second, related point in such cases is that the producer has put out a good that is desired by a significant number of people, but she receives proportionally little value in return. For one, this may feel disheartening and demoralizing even outside of economic questions. The producers of artistic works, in particular, often think that they have infused these works with their hearts and souls, and it can be troublesome to have large groups of individuals essentially say that this intellectual property is good enough to be consumed for free but not good enough to spend a few dollars on. The reality is that virtually anyone who wanted to watch *Game of Thrones* was legally able to wait until a season ended, purchase an HBO Now pass for one month at \$14.99, and watch a full season in that month (each season only had between six and ten episodes).<sup>13</sup> This is not an unbearable cost for most fans, and yet a large number chose not to pay it.

Despite a number of measures to prevent it, illegal streaming persists, and it is fair to assume—as mentioned above—that at least some percentage of the individuals involved would be willing to pay for the goods if this costless alternative did not exist. Just like with the non-rivalrousness aspect specifically, a more flexible approach as to whether intellectual property infringement can be likened to property offenses generally makes sense. Leaving aside some of the matters regarding sentimental value of goods that come up in the case of personal property,

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<sup>12</sup> See Manta & Wagner, *supra* note 8, at 338.

<sup>13</sup> See HBO, <https://www.hbo.com/order> (last accessed Apr. 14, 2019).

most situations involving theft or vandalism of tangible property produce negative consequences for the owner because she loses all or part of the *value* of her property. The physical loss or damage, while non-negligible, does not tend to be the central feature of the event. If a malicious neighbor tramples down and destroys potatoes I just grew, I can no longer sell them (or not at the same price). Similarly, if I sell my music for a living, illegal downloading of the music may eventually hamper my ability to sell my goods.

This will not always occur. For example, some people may choose to buy my music legally after initial illegal downloads. Indeed, in specific cases listeners may encounter my music through such downloads who otherwise would not have bothered taking the financial risk of purchasing it without testing. Also, artists make their revenues through a number of different avenues. A singer could witness a cut in profits via illegal downloads that is compensated through later increased sale of concert tickets and official merchandise. The empirics behind some of these tradeoffs are highly uncertain and context-dependent, however, and one might query why the illegal downloaders (and/or those who offer those goods) rather than the artist herself should be the ones to make the decision of how a work should be sold or given away in the marketplace.

The artist always has the option to distribute the good for free, or to ask for voluntary donations—indeed, Radiohead did just that a dozen years ago when it released an album on the Internet that anyone could download and pay a price of their choice.<sup>14</sup> The same is true of the potato farmer. He can decide how much of his agricultural goods to distribute at no cost as a matter of marketing (imagine a cooked version as a free sample at a farmer’s market) or good will. Some farms control their distribution strictly, while others including a number of apple-picking farms and the like assume that they can give buyers some discretion when it comes to sampling goods and that in the end, the total purchases made will financially justify earlier investments in offering samples.

Musical artists have so many different ways to offer samples, however, that it is not clear why whole-hog free downloading of their entire albums will be in the interest of most artists. They can allow listeners to hear the first thirty seconds of some or all songs, or they can make a few songs available for free while expecting purchase before a listener can have access to the entire album. Just like we do not expect potato farmers to allow potential buyers to take bites out of every potato before purchase, it is unrealistic to expect that most artists can or should be able to afford

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<sup>14</sup> Josh Tyrangiel, *Radiohead Says: Pay What You Want*, TIME (Oct. 1, 2007), <http://content.time.com/time/arts/article/0,8599,1666973,00.html>.

having large numbers of people consume their goods for free to encourage sales.

B. *The Harms of Intellectual Property Infringement Juxtaposed with Those of Property Crimes*

Criminal law is generally supposed to be used in the case of conduct involving nontrivial harm and wrongful conduct.<sup>15</sup> As discussed above, both property and intellectual property offenses reduce the wealth of owners and provide disincentives for further investments. One distinction in this context between property and IP offenses is that property crimes have a greater potential for endangering victims' sense of physical safety. IP infringers generally operate remotely, working behind a computer screen or at a different facility, unlike thieves and vandals that often personally intrude on one's space.

A reason that has been given for why criminal sanctions are more justified for property offenses than IP ones is that we must place greater emphasis on protecting the bodily integrity of victims than on punishing financial loss, and a thief of tangible goods could suddenly attack if a victim caught her in the act, or violence could ensue when the victim tries to protect his property (including potentially through the use of weapons). The law does not view this distinction as crucial for culpability even within property offenses, however, and someone can land in jail for improperly wiring money out of someone else's account, which is an offense that would also not present the potential for violent clashes as such.

On the issue of wrongfulness, convictions both in the property and intellectual property contexts generally require evidence of intent.<sup>16</sup> The particular level of wrongfulness differs in each scenario, but it is safe to assume that offenders who are criminally convicted in both the property and IP worlds usually have a high level of awareness of the illegality of their conducts.

American courts have frequently recognized informally the relationship between the two types of offenses, especially when they have referred to IP infringers' actions as "intellectual property theft" or "piracy". The Supreme Court has not expressed its views on the subject directly. The closest it came was in *Dowling v. United States*, where it ruled that the National Stolen Property Act (NSPA) that criminalized the interstate transportation of stolen property did not extend to bootleg records.<sup>17</sup> The Court called a copyrighted

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<sup>15</sup> See DOUGLAS HUSAK, *OVERCRIMINALIZATION: THE LIMITS OF THE CRIMINAL LAW* 103-19 (2008).

<sup>16</sup> See, e.g., MODEL PENAL CODE §§ 220.1-.3 (1962).

<sup>17</sup> 473 U.S. 207 (1985).

good “no ordinary chattel” and emphasized the inability of infringers to take over physical control of copyright or completely to deprive the owner of the ability to use it.<sup>18</sup> As is apparent from multiple statements in the opinion, the Court was concerned about interfering with congressional intent and pointed out that 1) Congress could have explicitly included copyright in the NSPA if it wished to do so and 2) the NSPA could be used as a tool to criminalize trademark infringement (when Congress had known to legislate in this area separately shortly before, in the narrow context of counterfeiting) and even patent infringement (which Congress has not done to this day).<sup>19</sup> Justice Powell argued in dissent that the NSPA does in fact cover the transportation of bootlegs, an act that he described as involving the offenses of theft, unauthorized use, and conversion.<sup>20</sup>

The subsequent judicial history is muddled, with lower courts distinguishing *Dowling* in a number of cases and referring explicitly to infringed intellectual property as having been “stolen”. While lower courts’ inconsistent application of *Dowling* could be explained by (willful or innocent) mistake or by the statutory changes to the NSPA to include the transmission of some forms of data,<sup>21</sup> it may also evidence an understanding on the part of the lower courts that *Dowling* did not truly reject the possibility that theft and conversion of intangible assets can occur.

In short, and while a final pronouncement by the Supreme Court remains to be heard, the parallels between the harms of intellectual property infringement and those of a number of property crimes are striking. IP infringement can partially or almost completely destroy the value of a good and reduce the incentives for productive behavior just like property crimes do. The criminal law also tends to demand willfulness before punishing either type of conduct. On the other hand, IP infringement is generally more remote and hence does not tend to interfere directly with the safety of owners. Further, complete deprivation of a good does not usually occur in the IP context. Last, on average, IP infringement may be less wrongful than property offenses because the boundaries of IP are less clearly delineated and hence accidental illegal conduct is more likely. As a result, courts must pay special attention to whether IP infringers genuinely had the mens rea necessary to meet criminal statutory definitions.

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<sup>18</sup> *Id.* at 216.

<sup>19</sup> *See id.* at 220-27.

<sup>20</sup> *Id.* at 232 (Powell, J., dissenting).

<sup>21</sup> *See, e.g.*, *United States v. Farraj*, 142 F. Supp. 2d 484, 490 (S.D.N.Y. 2001); *United States v. Alavi*, No. CR07-429-PHX-NVW, 2008 WL 1971391, at \*2 (D. Ariz. May 2, 2008). *But see* *United States v. Brown*, 925 F.2d 1301, 1307 (10th Cir. 1991) (stating that the *Dowling* decision removed all intangible property from the purview of the NSPA).

## II. THE NOT-SO-CURIOUS CASE OF PATENTS

There is a noticeable gap in the criminal law framework that deals with intellectual property infringement, which is that it does not cover patent infringement. The roots of this predicament can be found in a combination of 1) utilitarian and other moral considerations and 2) public choice explanations. This Section will focus on the differences between the various branches of intellectual property, the relative ease of infringing on a large scale in these regimes, the possibility of using tools other than criminal law to lower infringement levels, and the respective risks of overdeterrence.

The first question is, again, the one of harm. Inventors and other patent owners have complained at times that the sanctions imposed on infringers are insufficient, and that the process of civil litigation to vindicate rights in this context is really expensive. Indeed, “[p]atent litigation in district court typically costs millions of dollars.”<sup>22</sup> One can surmise from patent owners’ willingness to spend such sums that they have a high level of faith in their legal claims and that they perceive the harm they experience as large enough to invest millions into recovery.

Criminal actions against infringers could reduce civil litigation costs both by shifting some enforcement costs to the government and reducing the amount of infringement via deterrence mechanisms. The question at that point becomes whether this would promote innovation. This could occur because criminal sanctions reduce the costs of enforcing patents and provide a signal to inventors that society values them as much as it does copyright and trademark owners. Patent infringers may also be sensitive to being called thieves and criminals, and so this would increase the personal costs of infringing patents.

While this idea holds some appeal at first blush, the differences between patents and other forms of intellectual property cause significant problems in this context. First, even though the process to obtain patents is time-consuming and expensive,<sup>23</sup> a large percentage of litigated patents are ultimately deemed invalid.<sup>24</sup> While the patent term is shorter than that for other types of IP protection (twenty years for

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<sup>22</sup> John F. Duffy, *Standing to Challenge Patents, Enforcement Risk, and Separation of Powers*, 83 GEO. WASH. L. REV. 628, 644 (2015).

<sup>23</sup> The application costs for a patent (including fees paid to the PTO and attorneys) are estimated at about \$20,000. Jonathan M. Barnett, *Property as Process: How, Innovation Markets Select Innovation Regimes*, 119 YALE L.J. 384, 396 (2009); see also Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1498 (2001) (estimating application costs at “\$10,000 to \$30,000 per patent”).

<sup>24</sup> John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 205 (1998).

patents versus seventy years plus life of the author for copyright, and versus indefinite duration while the mark is in use for trademarks), patents provide the greatest level of excludability of these different forms of IP. Reverse engineering and independent invention do not provide defenses to a claim of patent infringement.<sup>25</sup> In contrast, copyright allows for an independent creation defense as well as the obligation on the part of the copyright owner to accept fair use of her works and compulsory licensing in some contexts.<sup>26</sup> For trademarks, owners have to let other parties use their marks unless it is done commercially and leads to consumer confusion, dilution, or a few other illicit outcomes.<sup>27</sup>

This means that the law is already rather intolerant of any use of patented material, and that on top of it, it is not always clear which patents are valid at all. The criminal law must provide proper notice to the public and define mens rea precisely, but defining willfulness in patent infringement for criminal purposes creates risks. Due to recent developments in the law, the current standard for willfulness to obtain enhanced civil damages is to some extent unsettled, but it may amount to an “egregiousness” requirement.<sup>28</sup> Because this standard has not really been tested, or clarified, in civil cases due to its novelty, it is difficult to determine whether it would be workable in the criminal context. As a general matter, it is easy to see how analyzing mens rea in patent infringement could prove quite confusing to the average criminal jury that may struggle with the subject matter of patents in the first place. It seems easier, to some extent, to justify criminal sanctions in contexts in which 1) willfulness can and is established conclusively and 2) the invention was such that there was little to no doubt that the patent itself was valid.

Both setting too high and too low a threshold for criminal prosecution in the patent context presents problems. If the bar is high, and large amounts of hard-to-obtain evidence are required to prove willfulness, prosecutors may not want to take the chance of bringing cases frequently at all, and even when they do, they may not succeed. This would reduce the upsides of having such sanctions because infringers may continue to proceed undeterred if there is much to gain

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<sup>25</sup> The issue of exclusive use in different forms of IP is covered in Brian M. Hoffstadt, *Dispossession, Intellectual Property, and the Sin of Theoretical Homogeneity*, 80 S. CAL. L. REV. 909, 951-52 (2007).

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> *Halo Elecs. v. Pulse Elecs.*, 136 S.Ct. 1923 (2016).

from infringement and the chance of actually being caught and prosecuted is minimal. Meanwhile, a low bar could over-deter innovation if individuals who do not wish to take the risk of incarceration or other criminal sanctions choose to stay out of the invention business altogether or work in areas that produce less useful inventions for the public. Ultimately, the realistic goal cannot be to reduce the level of patent infringement to zero because that is likely impossible without costs so severe to innovation that a cost-benefit analysis could not justify doing so.

Additionally, willful infringement can benefit society if it forces the examination of improperly granted patents that stand in the way of innovation.<sup>29</sup> In the copyright and trademark contexts, it is less often the case that willful infringement results in information as to whether owners properly received protection in the first place.<sup>30</sup> In a further difference, any overdeterrence that occurs in the patent context could prove more dangerous than overdeterrence for copyrights and trademarks. In trademarks, a new producer could probably still find a mark of some sort to use even if it is sub-optimal. In copyright, some artistic works may not be created or distributed.<sup>31</sup> While that can be problematic, the consequences in the patent world are far worse if whole classes of technology and perhaps even some life-saving medicines never see the light of day due to overdeterrence. On top of that, it is possible that in at least some cases, criminal sanctions already exist for patent infringement through indirect means, such as if a pharmaceutical drug infringer also engages in counterfeiting of the original trademark attached to the drug.<sup>32</sup> In such cases, the marginal benefit of having criminal sanctions for the patent infringement portion specifically may be low.

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<sup>29</sup> Multiple scholars have noted that society suffers when civil patent lawsuits are settled if bad patents that block “very useful or valuable” technology are allowed to continue existing as a result. Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 244 (2006).

<sup>30</sup> Indeed, it is patents specifically that are often improvidently granted, and patent infringement lawsuits are a tool to uncover that. *See supra* note 24 and accompanying text. I would like to thank Jacqueline Lipton for our conversation on this topic.

<sup>31</sup> *See, e.g.,* Geraldine Szott Moohr, *The Crime of Copyright Infringement: An Inquiry Based on Morality, Harm, and Criminal Theory*, 83 B.U. L. REV. 731, 760 (2003) (“Fear of criminal penalties may inhibit second-generation creators from working with material they believe may be off-limits—even when such use is in fact lawful.”).

<sup>32</sup> Press Release, U.S. Dep’t of Justice, Distributor of Counterfeit Pharmaceutical Drugs Sentenced (Jan. 15, 2009), available at <https://www.justice.gov/sites/default/files/criminal-ccips/legacy/2012/03/15/XuSent.pdf>.

Differences in the type of infringement we see in the patent context versus the copyright and trademark worlds likely also account for the lack of criminal sanctions in patents. First, most cases of patent infringement do not appear to involve copying or willfulness, so it is unclear to what extent intentional infringement—the type that the criminal law would punish—represents a significant problem in the United States.<sup>33</sup> When it comes to the other forms of intellectual property, and especially copyright, relatively modern technologies had a significant impact on increased levels of infringement, including specifically intentional infringement. The ability to reproduce with exactitude copyrighted materials and distribute them broadly exploded through the advent of the Internet.<sup>34</sup> Some have argued that this has come at a large loss to the U.S. economy as a matter of revenue and jobs.<sup>35</sup> Meanwhile, the sale of some types of goods, such as counterfeit pharmaceutical drugs distributed over the Internet, can cause grave health risks and be difficult to detect.<sup>36</sup> In most more innocuous cases, the victims of counterfeiting are dispersed and their respective financial losses low enough that they are unlikely to go after counterfeiters themselves.<sup>37</sup> Criminal prosecutions can address that problem by having the government seek to protect these victims in a single action.<sup>38</sup> In the case of copyright infringers, it is the infringers that are often dispersed, such as in peer-to-peer sharing contexts. Criminal sanctions against the biggest offenders are thought to deter future bad actors and to cost less than broad civil litigation.<sup>39</sup> Copyright infringers also often do not have

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<sup>33</sup> Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1451-54 (2009).

<sup>34</sup> See DAVID G. POST, IN SEARCH OF JEFFERSON'S MOOSE: NOTES ON THE STATE OF CYBERSPACE 202 (2009).

<sup>35</sup> See 138 CONG. REC. 31,182 (1992); H.R. REP. NO. 106-216, at 3; STEPHEN E. SIWEK, INST. FOR POLICY INNOVATION, THE TRUE COST OF COPYRIGHT INDUSTRY PIRACY TO THE U.S. ECONOMY 14 (2007), [https://www.ipi.org/docLib/20120515\\_CopyrightPiracy.pdf](https://www.ipi.org/docLib/20120515_CopyrightPiracy.pdf). *But see* Eric Goldman, *A Road to No Warez: The No Electronic Theft Act and Criminal Copyright Infringement*, 82 OR. L. REV. 369, 397-98 (2003) (criticizing these figures as vastly overstating the losses to U.S. copyright owners).

<sup>36</sup> See, e.g., John A. Vernon et al., *The Internet and Pharmaceutical Importation: Economic Realities and Other Related Issues*, 16 ALB. L.J. SCI. & TECH. 545, 550-51 (2006).

<sup>37</sup> See David J. Goldstone & Peter J. Toren, *The Criminalization of Trademark Counterfeiting*, 31 CONN. L. REV. 1, 13 (1998).

<sup>38</sup> See *id.*

<sup>39</sup> See generally Geraldine Szott Moohr, *Defining Overcriminalization Through Cost-Benefit Analysis: The Example of Criminal Copyright Lairs*, 54 AM. U. L. REV. 783 (2005) (weighing the utilitarian pros and cons of criminalizing copyright infringement, including in file-sharing scenarios).

much income, and so it is difficult to recover against them even if a civil lawsuit proves successful.<sup>40</sup>

The advent of the Internet has not affected patent infringement figures in the same way. And patent infringers tend to be large companies that do have the financial resources to pay for damage awards in civil lawsuits,<sup>41</sup> which means that corporations have a serious financial incentive not to infringe that lower-means individuals in other IP contexts may lack.<sup>42</sup> Further, patent infringement is not as woven into the fabric of our society as trademark and copyright infringement. Counterfeiting can affect the economic and even physical well-being of individuals. Copyright infringement can include regular people and potentially desensitize them to committing other forms of legal violations. Because patent infringement largely occurs between corporations, it is unlikely to have these effects. These factors make criminal sanctions less justifiable in the patent context than for copyright and trademarks.

Some of the development of the law, and of the differences between patent law on the one hand and copyright/trademark law on the other, can be traced back to public choice factors rather than utilitarian or moral rationales, however. The Recording Industry Association of America (RIAA) and the Motion Picture Association of America (MPAA) repeatedly pushed for increased criminal sanctions over the years because they thought that civil sanctions or insufficiently harsh criminal laws were not enough to deter infringement.<sup>43</sup> These organizations managed to expand which acts would count as felonies under the law and how high the monetary fines and prison sentence

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<sup>40</sup> See Ray Beckerman, *Ha Ha Ha Ha Ha. RIAA Paid Its Lawyers More Than \$16,000,000 in 2008 to Recover Only \$391,000!!!*, RECORDING INDUSTRY VS THE PEOPLE (July 13, 2010, 11:26 AM), <http://recordingindustryvspeople.blogspot.com/2010/07/ha-ha-ha-ha-ha-riaa-paid-its-lawyers.html>.

<sup>41</sup> One study of 1000 patents found that 707 were owned by large companies, and that 293 were owned by small entities, 175 of which were individuals. John R. Allison & Mark A. Lemley, *Who's Patenting What? An Empirical Exploration of Patent Prosecution*, 53 VAND. L. REV. 2099, 2117 (2000).

<sup>42</sup> This also means that if violations occur, the victims of patent infringement are more likely to be compensated for the harms they experienced than do the victims of other types of intellectual property infringement. This is especially true because some of the most blatant cases of patent infringement risk drawing awards of treble damages and attorney's fees.

<sup>43</sup> Lanier Saperstein, Comment, *Copyrights, Criminal Sanctions and Economic Rents: Applying the Rent Seeking Model to the Criminal Law Formulation Process*, 87 J. CRIM. L. & CRIMINOLOGY 1470, 1478-79 (1997) (citing *Piracy and Counterfeiting Amendments Act of 981: Hearing on S. 691 Before the Subcomm. on Criminal Law, of the S. Comm. on the Judiciary*, 97th Cong. 27 (1981) (joint statement of the MPAA and RIAA)).

maxima would run.<sup>44</sup> Lobbying is a logical act as a matter of self-interest on the part of the RIAA, MPAA, and various other organizations. Large copyright owners tend to be frequent victims of copyright infringement and most do not commit great amounts of infringement themselves. These owners have to spend significant sums to pursue their claims in court, often do not recover much money, and, as discussed, experience that civil sanctions may not prove as effective a deterrent as criminal penalties.<sup>45</sup> Trademark owners are also generally organized to favor harsher laws because they tend to be the victims rather than perpetrators of infringement.

There is some historical evidence to suggest that the United States and other governments have better insulated the patent system from lobbying.<sup>46</sup> That said, patent lobbies can be powerful, in part because most people are fairly indifferent as to how their Congressmen vote in the context of patent laws. What has kept sanctions in check regardless, however, is that large pharmaceutical companies have tended to favor large sanctions while information technology (IT) firms have gone against that trend.<sup>47</sup> Unlike big pharma, IT corporations are likely to find themselves accused of patent infringement rather than just being its victims.<sup>48</sup> Hence, they often do not wish to expose themselves to the risk of greater liability that harsher laws would cause.<sup>49</sup> Over the long term, changes in the relative power of the pharmaceutical versus IT industries could influence the level of patent enforcement and associated sanctions that we see.<sup>50</sup>

Technological changes could also affect the calculus and Congress's willingness to pass criminal sanctions for patent infringement. One of

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<sup>44</sup> *Id.* at 1480.

<sup>45</sup> *See id.* at 1507-08.

<sup>46</sup> *See* Craig Allen Nard & Andrew P. Morriss, *Constitutionalizing Patents: From Venice to Philadelphia*, 2 *REV. L. & ECON.* 223, 309 (2006).

<sup>47</sup> *See* Jay P. Kesan & Andres A. Gallo, *The Political Economy of the Patent System*, 87 *N.C. L. REV.* 1341, 1369-70, 1376 (2009).

<sup>48</sup> *Id.* at 1369-70.

<sup>49</sup> *Id.*

<sup>50</sup> Pharmaceutical companies may further be influenced by two other factors. One is substitution effects whereby illicit drugs might also be trademarked under a counterfeit name, which would draw the risk of criminal sanctions as it is. *See* Manta, *Puzzle of Criminal Sanctions*, *supra* note 1, at 499-500. Second, the makers of generic drugs often concede infringement altogether—while contesting the validity of the original patent—under the Hatch-Waxman Act because they have to show bioequivalence to the existing drugs. *See* Janet Freilich, *The Paradox of Legal Equivalents and Scientific Equivalence: Reconciling Patent Law's Doctrine of Equivalents with the FDA's Bioequivalence Requirement*, 66 *SMU L. REV.* 59, 76 (2013).

the most salient examples in this context is the advent of 3D printing,<sup>51</sup> whose potential to increase opportunities for trademark violations I have noted previously.<sup>52</sup> This technology has the potential to disrupt intellectual property as we know it because users can share computer-aided design (CAD) files digitally that would enable users from all over the world to infringe on patented inventions as long as they have the necessary raw materials and printer.<sup>53</sup> Should this start occurring on a large scale, patent owners would quite likely band together to encourage and lobby Congress to pass more punitive legislation, including quite possibly criminal sanctions.

### III. BACKLASH TO HARSH SANCTIONS

Even when IP owners manage to get harsh laws passed that carry hefty civil damages or criminal sanctions with them, the possibility of later upheaval by the population remains. This is particularly true in the copyright context, in part because such a large percentage of American Internet users has engaged in some degree of infringement.<sup>54</sup> The public reaction was galvanized by the sky-high civil damages that copyright owners obtained against Boston University student Joel Tenenbaum and Minnesota mom Jammie Thomas-Rasset, who would each come to owe hundreds of thousands of dollars for illegal downloading.<sup>55</sup> While such high sanctions, according to scholarly work on the subject, appear to have some effect on deterring future illegal downloads, the effects are temporary and illicit behavior tends to resume eventually.<sup>56</sup>

Many people had not necessarily paid much attention to intellectual property legislation in the pre-Internet era, but grassroots efforts took hold and ultimately defeated the bills for the Stop Online Piracy Act (SOPA) in the House of Representatives<sup>57</sup> and for the Preventing Real Online Threats

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<sup>51</sup> See Deven R. Desai & Gerard N. Magliocca, *Patents, Meet Napster: 3D Printing and the Digitization of Things*, 102 GEO. L.J. 1691 (2014); Dinusha Mendis et al., *The Future of Printcrime: Intellectual Property, Innovation Law, and 3D Printing*, 3D PRINTING AND BEYOND: INTELLECTUAL PROPERTY AND REGULATION 361 (Dinusha Mendis et al., eds. 2019); Lucas Osborn, *Regulating Three-Dimensional Printing: The Converging Worlds of Bits and Atoms*, 51 SAN DIEGO L. REV. 553 (2014).

<sup>52</sup> See Irina D. Manta, *Intellectual Property and the Presumption of Innocence*, 56 WM & MARY L. REV. 1745, 1780 (2015).

<sup>53</sup> See Timothy R. Holbrook & Lucas Osborn, *Digital Patent Infringement in an Era of 3D Printing*, 48 U.C. DAVIS L. REV. 1319, 1372 (2015).

<sup>54</sup> See Annemarie Bridy, *Why Pirates Won't Behave: Regulating P2P in the Decade After Napster*, 40 RUTGERS L.J. 565, 604 (2009).

<sup>55</sup> *Sony BMG Music Entm't v. Tenenbaum*, 721 F. Supp. 2d 85, 87, 121 (D. Mass. 2010).

<sup>56</sup> See Bridy, *supra* note 54.

<sup>57</sup> H.R. 3261, 112th Cong. (2011).

to Economic Creativity and Theft of Intellectual Property Act (PIPA, or also PROTECT IP Act) in the Senate.<sup>58</sup> These bills would have enabled the possibility of court orders to thwart advertisers and banks from engaging in financial dealings with infringing websites, as well as of court orders that could make Internet Service Providers (ISPs) prevent access to websites or make search engines like Google and their brethren block links to infringing sites.<sup>59</sup> SOPA also came with criminal sanctions that included up to five years' imprisonment for anyone who illegally streamed copyrighted works.<sup>60</sup>

Online petitions garnered millions of signatures, and websites like Wikipedia and Reddit rose up in protest.<sup>61</sup> Others such as Google, Flickr, and Mozilla soon joined. Unlike in many previous contexts, large copyright owners did not unite in the effort to pass SOPA/PIPA, and Silicon Valley proved to be an opponent to the entertainment world for the first time.<sup>62</sup> The combination of angered Internet users and pushback from several major corporations proved fatal to the bills even though those bills did not plan to change the actual substance of intellectual property law. The inclusion of harsh sanctions, however, set against the backdrop of aggressive enforcement of copyright law against the likes of Thomas-Rasset and Tenenbaum, contributed to the success of the protests. Indeed, studies show that individuals' intuitions about what constitutes ethical punishment of copyright infringement is directly connected to the level of sanctions imposed.<sup>63</sup> While many people support warnings and fines, few wish to see offenders disconnected from the Internet or put in jail.<sup>64</sup> Most of the people who expressed support for fines in one study would have limited them to below \$100, which is vastly below the statutory penalties

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<sup>58</sup> S. 968, 112th Cong. (2011).

<sup>59</sup> See H.R. 3261 § 102(c)(2)(A)-(D); S. 968, § 3(d)(B)-(D).

<sup>60</sup> See H.R. 3261 § 201(a); see also 18 U.S.C. 2319(b)(1) (2006).

<sup>61</sup> Larry Downes, *Who Really Stopped SOPA, and Why?*, FORBES (Jan. 25, 2012, 1:15 AM), <http://www.forbes.com/sites/larrydownes/2012/01/25/who-really-stopped-sopa-and-why>.

<sup>62</sup> Yochai Benkler, *Seven Lessons from SOPA/PIPA/Megaupload and Four Proposals on Where We Go from Here*, TECHPRESIDENT (Jan. 25, 2012), <http://techpresident.com/news/21680/seven-lessons-sopapipamegaupload-and-four-proposals-where-we-go-here>; see also David Post, *What the Hell Happened? The Campaign Against (and Defeat of) SOPA*, VOLOKH CONSPIRACY (Sept. 17, 2013, 11:21 AM), <http://www.volokh.com/2013/09/17/happened-bring-sopas-downfall> (analyzing the factors that led to the downfall of SOPA).

<sup>63</sup> See Ben Depoorter et al., *Copyright Backlash*, 84 S. CAL. L. REV. 1251, 1278-83 (2011); Ben Depoorter & Sven Vanneste, *Norms and Enforcement: The Case Against Copyright Litigation*, 84 OR. L. REV. 1127, 1161 (2005).

<sup>64</sup> Joe Karaganis, Am. Assembly, *Copyright Infringement and Enforcement in the US*, 2 (Nov. 2011), <http://piracy.americanassembly.org/wp-content/uploads/2011/11/AA-Research-Note-Infringement-and-Enforcement-November-2011.pdf>, at 6.

for copyright infringement.<sup>65</sup> Answers in this area were also sensitive to the particular phrasing of survey questions, suggesting that the portrayal of copyright issues in the media might have an important effect on individuals' perceptions and likelihood of taking political action.<sup>66</sup>

The media may have also contributed to people's existing biases toward developing empathy for identifiable perceived victims of harsh sanctions (as opposed to remote statistical victims). Thomas-Rasset, Tenenbaum, and others became the faces of a struggle against large corporate actors who, according to significant portions of the public, suffered questionable economic harms. The SOPA/PIPA bills increased individuals' fears of what could happen if they themselves got caught infringing, given how life-changing the pre-existing civil statutory sanctions on the books already turned out to be for some.

The most prominent actor in the context of harsh sanctions, however, was Aaron Swartz, an anti-SOPA activist that the DOJ later prosecuted for his own involvement with copyright infringement. Swartz rose to tech fame due to his roles in helping to form Reddit, the Creative Commons Project, and OpenLibrary.org.<sup>67</sup> In 2011, in an effort to give the public free access to subscription-only articles in the academic database JSTOR, he broke into computer networks at M.I.T. by leaving a laptop connected to the system in a closet and then downloading 4.8 million documents after signing in under a false account.<sup>68</sup> His plan to release the documents failed because he was caught by law enforcement.<sup>69</sup> Prosecutors charged him with a total of thirteen criminal counts,<sup>70</sup> and he faced up to thirty-five years in prison as well as other consequences such as a fine of up to \$1 million.<sup>71</sup> His likely prison sentence would have likely been in the

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<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> Kevin Poulsen, *Aaron Swartz, Coder and Activist, Dead at 26*, WIRED (Jan. 12, 2013, 4:01 PM), <http://www.wired.com/threatlevel/2013/01/aaron-swartz>.

<sup>68</sup> Of the 4.8 million documents, 1.7 million normally required payment to be accessed. Charles Arthur, *Reddit Co-Founder Accused of Stealing 4.8m JSTOR Documents from MIT*, THE GUARDIAN (July 19, 2011, 1:56 PM), <http://www.guardian.co.uk/technology/2011/jul/19/reddit-founder-swartz-jstor-accused>.

<sup>69</sup> John Schwartz, *Internet Activist, a Creator of RSS, Is Dead at 26, Apparently a Suicide*, N.Y. TIMES (Jan. 12, 2013), <http://www.nytimes.com/2013/01/13/technology/aaron-swartz-internet-activist-dies-at-26.html>.

<sup>70</sup> Tim Cushing, *US Government Ups Felony Count in JSTOR/Aaron Swartz Case from Four to Thirteen*, TECHDIRT (Sept. 18, 2012, 7:24 AM), <https://www.techdirt.com/articles/20120917/17393320412/us-government-ups-felony-count-jstoraaron-swartz-case-four-to-thirteen.shtml>.

<sup>71</sup> *Alleged Hacker Charged with Stealing over Four Million Documents from MIT Network*, U.S. Dep't Just. (July 19, 2011), <https://web.archive.org/web/20110724043722/http://www.justice.gov/>

neighborhood of seven years had a court convicted him,<sup>72</sup> but we will never find out the exact figure because Aaron Swartz took his own life by hanging before the case proceeded.<sup>73</sup>

There is scholarly disagreement on the firmness of the legal foundation of his prosecution.<sup>74</sup> As a more general matter, however, it is indeed likely that many people today have engaged in behavior that would theoretically fall under the purview of the criminal law.<sup>75</sup> Some policymakers and scholars have suggested changes to the laws that made Swartz's

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usao/ma/news/2011/July/SwartzAaronPR.html. Some others place that figure as high as fifty or more years in prison and \$4 million in fines. Cushing, *supra* note 70.

<sup>72</sup> Orin Kerr, *The Criminal Charges Against Aaron Swartz (Part 2: Prosecutorial Discretion)*, VOLOKH CONSPIRACY (Jan. 16, 2013, 11:34 PM) [hereinafter Kerr, Prosecutorial Discretion], <http://www.volokh.com/2013/01/16/the-criminal-charges-against-aaron-swartz-part-2-prosecutorial-discretion>. It is worth noting that for some types of defendants, the "collateral effects [of criminal law] are quite steep, attach very early, and are often irrevocable." Miriam H. Baer, *Linkage and the Deterrence of Corporate Fraud*, 94 VA. L. REV. 1295, 1312 (2008).

<sup>73</sup> Family and Partner of Aaron Swartz, Official Statement, Soup (Jan. 12, 2013), <http://soupsoup.tumblr.com/post/40373383323/official-statement-from-the-family-and-partner-of-aaron-swartz-was-killed-by-the-government-father-tells-mourners>, L.A. TIMES (Jan. 15, 2013), <https://www.latimes.com/nation/la-xpm-2013-jan-15-la-na-nn-aaron-swartz-funeral-eulogy-father-20130115-story.html>. The precise reasons for any suicide are certainly complex, and Swartz had preexisting struggles with depression. See Laurie Segall, *Activist Aaron Swartz's Suicide Sparks Talk About Depression*, CNNMONEY (Jan. 14, 2013, 7:41 PM), <http://money.cnn.com/2013/01/14/technology/swartz-suicide-depression/index.html>.

<sup>74</sup> See Max Kennerly, *Examining the Outrageous Aaron Swartz Indictment for Computer Fraud*, LITIG. & TRIAL BLOG (July 19, 2011), <http://www.litigationandtrial.com/2011/07/articles/series/special-comment/aaron-swartz-computer-fraud-indictment> (arguing that the charges against Aaron Swartz rest on an unsteady legal basis); Mike Masnick, *The Lack of a Legal or Moral Basis for the Aaron Swartz Indictment Is Quite Troubling*, TECHDIRT (July 20, 2011, 12:06 PM), <http://www.techdirt.com/articles/20110720/00581915173/lack-legal-moral-basis-aaron-swartz-indictment-is-quite-troubling.shtml> (responding to Kennerly's analysis regarding the charges against Aaron Swartz). But see Orin Kerr, *The Criminal Charges Against Aaron Swartz (Part 1: The Law)*, VOLOKH CONSPIRACY (Jan. 14, 2013, 2:50 AM), <http://www.volokh.com/2013/01/14/aaron-swartz-charges>. For a partial critique of Professor Kerr's take, see James Boyle, *The Prosecution of Aaron Swartz: A Reply to Orin Kerr*, HUFFINGTON POST (Jan. 18, 2013, 10:11 PM), [http://www.huffingtonpost.com/james-boyle/prosecution-aaron-swartz\\_b\\_2508242.html](http://www.huffingtonpost.com/james-boyle/prosecution-aaron-swartz_b_2508242.html).

<sup>75</sup> See, e.g., Tim Wu, *How the Legal System Failed Aaron Swartz—and Us*, NEW YORKER (Jan. 14, 2013), <http://www.newyorker.com/online/blogs/newsdesk/2013/01/everyone-interesting-is-a-felon.html>.

prosecution possible,<sup>76</sup> and there were bipartisan criticisms<sup>77</sup> and public demonstrations after his death.<sup>78</sup> Many, including a number of Congressmen, asked whether Swartz would have been prosecuted as harshly but for his opposition efforts to SOPA,<sup>79</sup> which is a disconcerting possibility for those concerned with free expression in our society. The DOJ came under suspicion that it sought to make an example of Swartz because he was a famous figure that angered the government when criticizing SOPA and attempting to distribute documents to the public that usually require individual payments through the PACER system.<sup>80</sup>

The criminal law system relies on the fact that 95% of charged individuals accept plea bargains.<sup>81</sup> Having large sanctions on the books

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<sup>76</sup> Kerr, Prosecutorial Discretion, *supra* note 72; see also Ian Bassin, *In Remembering Aaron Swartz, Let's Not Forget Jamel Dossie*, THE MORUM (Jan. 18, 2013, 12:01 PM), <http://themorum.blogspot.com/2013/01/in-remembering-aaron-swartz-lets-not.html> (“Often it takes a rare injustice perpetrated against a privileged young person for our society to recognize the common injustices we visit every day upon less-privileged minorities.”); James Grimmelman, Comment to *My Career as a Bulk Downloader*, LABORATORIUM (Jan. 16, 2013, 9:48 PM), [http://laboratorium.net/archive/2013/01/16/my\\_career\\_as\\_a\\_bulk\\_downloader#comment-70137](http://laboratorium.net/archive/2013/01/16/my_career_as_a_bulk_downloader#comment-70137) (“The treatment he received—using an insanely disproportionate sentence as a threat to pressure him into accepting a sentence that is ‘only’ seriously disproportionate—is a standard part of the prosecutorial toolkit.”). For proposals to limit prosecutorial discretion in the aftermath of Aaron Swartz’s and others’ legal cases, see Glenn Harlan Reynolds, *Ham Sandwich Nation: Due Process When Everything Is a Crime*, 113 COLUM. L. REV. SIDEBAR 102 (2013).

<sup>77</sup> Ryan J. Reilly et al., *Darrell Issa Probing Prosecution of Aaron Swartz, Internet Pioneer Who Killed Himself*, HUFFINGTON POST (Jan. 15, 2013, 6:30 PM), [http://www.huffingtonpost.com/2013/01/15/darrell-issa-aaron-swartz-n\\_2481450.html](http://www.huffingtonpost.com/2013/01/15/darrell-issa-aaron-swartz-n_2481450.html).

<sup>78</sup> Clare Trapasso & Daniel Beekman, *Crowd Mourns Reddit Founder Aaron Swartz*, N.Y. DAILY NEWS (Jan. 20, 2013, 1:01 AM), <http://www.nydailynews.com/new-york/friends-family-mourn-reddit-founder-article-1.1243444>.

<sup>79</sup> Letter from Darrell E. Issa & Elijah E. Cummings, Comm. on Oversight & Gov’t Reform, to Eric H. Holder, Attorney Gen., Dep’t of Justice (Jan. 28, 2013), <https://oversight.house.gov/sites/democrats.oversight.house.gov/files/migrated/2013-01-28%20DEI%20EEC%20to%20Holder%20re%20Aaron%20Schwartz%20prosecution.pdf>.

<sup>80</sup> See, e.g., Tim Carmody, *Memory to Myth: Tracing Aaron Swartz Through the 21st Century*, THE VERGE (Jan. 22, 2013, 12:30 PM), <http://www.theverge.com/2013/1/22/3898584/aaron-swartz-profile-memory-to-myth> (describing Aaron Swartz’s life, accomplishments, and the motivations behind his actions).

<sup>81</sup> Lincoln Caplan, *Aaron Swartz and Prosecutorial Discretion*, N.Y. TIMES (Jan. 18, 2013, 10:06 AM), <http://takingnote.blogs.nytimes.com/2013/01/18/aaron-swartz-and-prosecutorial-discretion>; see also Erik Eckholm, *Prosecutors Draw Fire for Sentences Called Harsh*, N.Y. TIMES (Dec. 5, 2013), <http://www.nytimes.com/2013/12/06/us/federal-prosecutors-assailed-in-outcry-over-sentencing.html> (discussing the criticism that “federal prosecutors are strong-arming defendants into pleading guilty and overpunishing those who do not—undermining the fairness and credibility of the justice system”). Given the power of prosecutors, another concern is the possibility that much prosecutorial misconduct and failure to turn over to the defense exculpatory evidence goes undetected. See Editorial, *Rampant*

ensures that this number remains high, but the question is at what cost.<sup>82</sup> Swartz was one of the few that did not want to “take the deal”—while he worried about the possibility of prison, he was most concerned about being branded a felon.<sup>83</sup> It is questionable whether the drafters of the criminal laws that may have been used ultimately to convict Swartz envisioned defendants like him. His case, and those of people like Thomas-Rasset and Tenenbaum in the civil setting, shows that bills involving new criminal or civil sanctions against offenders in the quickly developing world of information reproduction and dissemination deserve special attention.

#### CONCLUSION

Patents and copyrights are both protected by the same constitutional clause, and both regimes seek to incentivize the creation of more intangible goods from which society will benefit. They both struggle with defining how much an individual must add to the goods that preceded it before protection kicks in, and with how best to punish legal violations. Copyright law, like trademark law but unlike patent law, has chosen to include the possibility of criminal sanctions. As this symposium piece describes, this has come about for both utilitarian reasons and due to the nature of the American public choice landscape. Copyright owners’ ability to push for increased sanctions and enforcement has, however, hit some roadblocks in recent times. Similarly to how tech companies have put up an important obstacle to the expansion of patent infringement sanctions, they—together with popular grassroots movements—have now drawn lines in the copyright context. The future will show whether these developments will eventually lead to greater convergence between copyright enforcement and patent enforcement.

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*Prosecutorial Misconduct*, N.Y. TIMES (Jan. 4, 2014), <http://www.nytimes.com/2014/01/05/opinion/sunday/rampant-prosecutorial-misconduct.html>.

<sup>82</sup> *Id.*

<sup>83</sup> David Amsden, *The Brilliant Life and Tragic Death of Aaron Swartz*, ROLLING STONE (Feb. 15, 2013), <http://www.rollingstone.com/culture/news/the-brilliant-life-and-tragic-death-of-aaron-swartz-20130215>; see also Lawrence Lessig, *Prosecutor as Bully*, HUFFINGTON POST (Jan. 13, 2013, 10:01 AM), [http://www.huffingtonpost.com/lawrence-lessig/aaron-swartz-suicide\\_b\\_2467079.html](http://www.huffingtonpost.com/lawrence-lessig/aaron-swartz-suicide_b_2467079.html) (questioning the government's need to press for felony charges against Swartz). Swartz also drew parallels between his experience with the prosecution and the tale that Franz Kafka describes in the novel “The Trial”.