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FAN OR FOE? FAN FICTION, AUTHORSHIP, AND THE FIGHT FOR CONTROL

VIKTOR MAYER-SCHÖNBERGER[*] & LENA WONG[#]

Through *Harry Potter*, a series of books about a fictional young boy wizard, J. K. Rowling introduced a generation of children to a literary world of wizardry and witchcraft.[1] Weaving complex plots about Harry Potter and his friends as they faced the evil Lord Voldemort, Rowling's series has generated billions of dollars and has become a franchise that encompasses successful filmic incarnations, a themed amusement park, and countless varieties of merchandise.[2] However, in 2007 and 2008, Rowling received widespread attention for something else: suing one of her most devoted fans.

Starting in 2000, former middle school librarian Steven Vander Ark devoted much of his personal time to maintaining a website called "The Harry Potter Lexicon." The *Lexicon* is an encyclopedia of the *Harry Potter* world and is a detailed account of the series, including its

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[1] *See generally* J.K. ROWLING, HARRY POTTER AND THE PHILOSOPHER'S STONE (1997); J.K. ROWLING, HARRY POTTER AND THE CHAMBER OF SECRETS (1998); J.K. ROWLING, HARRY POTTER AND THE PRISONER OF AZKABAN (1999); J.K. ROWLING, HARRY POTTER AND THE GOBLET OF FIRE (2000); J.K. ROWLING, HARRY POTTER AND THE ORDER OF THE PHOENIX (2003); J.K. ROWLING, HARRY POTTER AND THE HALF-BLOOD PRINCE (2005); J.K. ROWLING, HARRY POTTER AND THE DEATHLY HALLOWS (2007).

[2] The Wizarding World of Harry Potter is part of the Universal Studios amusement park in Orlando, Florida, *see* THE WIZARDING WORLD OF HARRY POTTER, http://www.universalorlando.com/harrypotter/ (last visited Nov. 16, 2012). Examples of merchandise include replicas of characters' wands, clothing, and magical objects from the series, *see* THE OFFICIAL STORE OF WARNER BROS. STUDIOS, http://www.wbshop.com/category/wbshop_brands/harry+potter.do (last visited Nov. 16, 2012).

characters, plotlines, and spells. The website has enjoyed a large following of Potter fans from around the world. In 2004, J.K. Rowling gave the website one of her coveted Fan Site awards and confessed to frequently using the website as a reference herself while writing her books.[3] However, when a relatively unknown publishing company called RDR Books announced, in 2007, that they were going to sell print copies of the *Lexicon*, Warner Bros. (who owns the rights to the Harry Potter movie franchise) and Rowling sued Vander Ark and his publisher for copyright infringement and plagiarism, demanding that they cease publication of the *Lexicon*.[4] Rowling and Warner Bros. won their case, and the court blocked publication of the *Lexicon* in its form at the time of the trial in 2008.[5]

Warner Bros., however, is remarkable not so much for its outcome as for the change in rights holders' copyright litigation strategies that it signifies. Rowling and Warner Bros. not only went after a huge fan of Rowling's, who had helped her and her book sales, but did so by arguing that authors should maintain near complete control over their fictional characters, thus essentially negating the very idea of fan fiction.

Rowling and Warner Bros. could have easily won the case on its factual merits. After all, Vander Ark did not deny plagiarizing from some of Rowling's works, and publishing the *Lexicon* could have had a negative economic impact on Rowling's future plans of releasing her own *Harry Potter* encyclopedia. But that is not what Rowling focused her attention on in her testimony. Rather, her argument that "the

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[3] David B. Caruso, *Harry Potter case illustrates blurry line in copyright law*, THE ASSOCIATED PRESS (Apr. 20, 2008 at 12:01 AM), http://usatoday30.usatoday.com/life/books/2008-04-20-harrypotter-lawsuit_N.htm.

[4] *See Warner Bros. Entm't Inc. v. RDR Books*, 575 F. Supp. 2d 513, 517 (S.D.N.Y. 2008).

[5] *Id.* at 554. In 2009, The *Lexicon* was published after revisions implementing the decision in *Warner Bros. Entm't Inc. v. RDR Books*, 575 F. Supp. 2d 513 (S.D.N.Y. 2008); the new version included more critical commentary and followed fair use guidelines, *see* "New Harry Potter Encyclopaedia on sale in January," THE TELEGRAPH (Jan. 02, 2009, 8:03 AM), http://www.telegraph.co.uk/culture/books/4074421/New-Harry-Potter-encyclopaedia-on-sale-in-January.html. *See also* STEVE VANDER ARK, THE LEXICON: AN UNAUTHORIZED GUIDE TO HARRY POTTER FICTION AND RELATED MATERIALS (2009).

characters she created are as dear as her children"[6] and that she felt "intensely protective, firstly, of the literary world [she] spent so long creating and, secondly, of the fans who bought [her] books in such large numbers"[7] seem like the opening salvo by rights holders waging a war against the burgeoning world of fan fiction. To make the point even clearer that the lawsuit was about something more than money, Rowling explicitly stated: "[W]e all know I've made enough money. . . [t]hat is absolutely not why I'm here"[8] before accusing Vander Ark of having committed a "wholesale theft of 17 years of [her] hard work,"[9] in an act of betrayal.[10]

Rowling's is an important voice in a growing chorus of authors whose main worry with regards to fan fiction seems to be not about economics, but about control.[11] Fan fiction — written extensions of popular works of fiction created by their fans — has always existed, but the digital age has paved the way for its dramatic growth and

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[6] David Caruso, '*Harry Potter' fan testifies in trial and weeps,* THE ASSOCIATED PRESS (Apr. 15, 2008), http://www.foxnews.com/printer_friendly_wires/2008Apr15/0,4675,HarryPotterLawsuit,00.html; *see also* Transcript of Record at 49-2, Warner Bros. Entm't Inc. v. RDR Books, 575 F. Supp. 2d 513 (S.D.N.Y. 2008).

[7] Catherine Elsworth and Nigel Reynolds, *JK Rowling in court to stop Harry Potter encylopaedia,* THE TELEGRAPH (Apr. 15, 2008, 12:01 AM), http://www.telegraph.co.uk/news/uknews/1895675/JK-Rowling-in-court-to-stop-Harry-Potter-encyclopaedia.html.

[8] Transcript of Record at 103-4, Warner Bros. Entm't Inc. v. RDR Books, 575 F. Supp. 2d 513 (S.D.N.Y. 2008); *see also* Larry Neumeister, *Rowling: Potter encyclopedia is 'wholesale theft'*, THE ASSOCIATED PRESS (Apr. 16, 2008, 6:22 PM), http://usatoday30.usatoday.com/life/books/news/2008-04-13-rowling-lawsuit_N.htm.

[9] Transcript of Record at 129-18, Warner Bros. Entm't Inc. v. RDR Books, 575 F. Supp. 2d 513 (S.D.N.Y. 2008); *see also* Neumeister, *supra* note 8.

[10] Transcript of Record at 55-18, Warner Bros. Entm't Inc. v. RDR Books, 575 F. Supp. 2d 513 (S.D.N.Y. 2008); *see also* Elsworth and Reynolds, *supra* note 7.

[11] Examples of other authors who have asserted control over their literary worlds include Anne Rice, *see* Megan McCardle, *Fan Fiction, Fandom, and Fanfare: What's All the Fuss*?, 9 B.U. J. SCI. & TECH L.LAW 443, 446 (2003), and Robin McKinley, *see* ROBIN MCKINLEY, http://www.robinmckinley.com/faq/faq.php?q_id=20 (Last visited Nov. 16, 2012).

costless global distribution.[12] Reasserting control over their works is seen as their best strategy forward. But, as we will argue, these assertions of control come at the expense of the very creativity that copyright law is supposed to protect.

This article examines the validity of the control argument and its underlying premises. We begin by laying out the reasons why fan fiction is prompting authors to push for control.[13] We then examine the validity of the control argument in light of the concept of "authorship."[14] Assessing the concept of "authorship" from multiple dimensions, we argue that courts are ill advised to assent to the control argument, for one legal and one structural reason.

I. FAN FICTION AND THE PUSH FOR CONTROL

Fan fiction has been loosely defined as "any prose retelling of stories and characters drawn from mass-media content"[15] or "any kind of written creativity that is based on an identifiable segment of popular culture, such as a television show, and is not produced as 'professional' writing."[16] It is one of the predominant means for fans to continue interacting with literary worlds to which they feel a particular connection.[17]

Fan fiction has a number of distinct characteristics. First, the premise of fandom is a person's personal connection to a text, whether

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[12] Leanne Stendell, *Fanfic and Fan Fact: How Current Copyright Law Ignores the Reality of the Copyright Owner and Consumer Interests in Fan Fiction*, 58 SMU L. REV. 1557, 1557 (2005). For an overview of fan behavior from early documentation to the digital age, *see* Francesca Coppa, *A Brief History of Media Fandom*, *in* FAN FICTION AND FAN COMMUNITIES IN THE AGE OF THE INTERNET 41 (Karen Hellekson & Kristina Busse eds., 2006). For an analysis of the effects of fan fiction during the digital age (particularly in young Harry Potter fans), *see* HENRY JENKINS, *Why Heather Can Write*, *in* CONVERGENCE CULTURE 169 (2006). For one of the first examinations of online fan fiction and copyright law, *see* Rebecca Tushnet, *Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L.J. 651, 655 (1996).

[13] Infra, Section I.

[14] Infra, Section II.

[15] HENRY JENKINS, CONVERGENCE CULTURE 285 (2006).

[16] Tushnet, *supra* note 12, at 655.

[17] *Id.*

that be a film, television show, book, play, or otherwise.[18] This emotional involvement is akin to the relationship a child may have with his favorite toy, where meaning "comes not from its intrinsic merits or economic value but rather from the significance the child bestows upon the commodity through its use."[19] While a normal person might interact with a text by reading or watching it, fans actively nurture their relationships with a text through various fan practices; writing fan fiction is one of them.

Secondly, fan fiction is completely dependent on the original work from which it is derived. Each piece of fan fiction revolves around a 'canon' — the "original work[s] from which the fan fiction author borrows"[20] or "the events presented in the media source that provide the universe, setting, and characters"[21] for the new work that a fan creates. In other words, "[a] known author or scriptwriter creates a 'sandbox' full of characters and story lines and his fans can't wait to 'play' in it."[22] Thus, fan fiction stories are written with the assumption that those reading it already understand the "world" of a text including its characters, settings, and past events — those who read and write fan fiction do not need further descriptions of the "sandbox" because they are already in it. For example, a story about *Harry Potter* would not have to describe at length who Harry Potter, Hermione Granger, or Ron Weasley are or what "Hogwarts" is.[23]

However, despite the connection between the original text(s) and a piece of fan fiction, many fan fiction authors believe that "[e]ach subsequent tale concerns a moment of real life surrounding the prior

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[18] Henry Jenkins writes, "the difference between watching a series and becoming a fan lies in the intensity of their emotional and intellectual involvement." HENRY JENKINS, TEXTUAL POACHERS 56 (Taylor & Francis 2013).

[19] *Id.* at 51.

[20] *See* McCardle, *supra* note 11, at 446.

[21] KAREN HELLEKSON AND KRISTINA BUSSE, FAN FICTION AND FAN COMMUNITIES IN THE AGE OF THE INTERNET 9–10 (2006).

[22] Elizabeth Burns and Carlie Webber, *When Harry Met Bella*, 55 SCH. LIBR. J. 26, 26 (2009).

[23] Harry Potter is a fictional boy wizard and the lead character of the *Harry Potter* series. Hermione Granger and Ron Weasley are his best friends and main supporting characters. Hogwarts is the wizarding school that all three characters attend. *See Harry Potter* books cited *supra* note 1.

work and reweaves the context of tale, ultimately changing it."[24] Some media scholars have even argued that both the fan text and the original story become part of a larger body of knowledge rather than belonging to a hierarchy that places priority on the original text.[25] Fan fiction stories are not mere copies of an original tale, but are reinterpretations or extensions of an existing story involving people, places, and things from that story's world. While their writings explicitly build upon another's text(s), authors of fan fiction often feel that their stories exist as original works and, in doing so, contribute to the "fanon" — the body of fan-created works that help to contribute to the community's growing understanding of the source text.[26]

Some fan fiction simply extends a plotline from the original text, writes an alternate ending, or proposes a potential sequel, as with "She's Not Dead Romeo," a fan fiction piece that proposes what would have happened if Friar Laurence — from William Shakespeare's *Romeo and Juliet*[27] — had been able to stop Romeo before he committed suicide.[28] Stories can expand on existing romantic relationships within a story, or put forward alternative

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[24] Christina Z. Ranon, *Honor Among Thieves: Copyright Infringement in Internet Fandom,* 8 VAND. J. ENT. & TECH. L. 421, 423 (2006).

[25] One academic even argued that labeling fan fiction should be called "archontic," which by definition implies that "[n]o archive is ever final, complete, closed." This definition is considered preferable to words like "derivative" or "appropriative" works, because doing so "signifies a ranking of the two texts according to quality and classifies the secondary text as the lesser one. Similarly, *appropriative* connotes 'taking' and can easily be inflected to mean 'thieving' or stealing.'" *See* Abigail Derecho, *Archontic Literature: A Definition, a History, and Several Theories of Fan Fiction*, *in* FAN FICTION AND FAN COMMUNITIES IN THE AGE OF THE INTERNET 61, 64 (Karen Hellekson & Kristina Busse eds., 2006).

[26] *See* Deborah Kaplan, *Construction of Fan Fiction Character Through Narrative*, *in* FAN FICTION AND FAN COMMUNITIES IN THE AGE OF THE INTERNET 134, 136 (Karen Hellekson & Kristina Busse eds., 2006).

[27] WILLIAM SHAKESPEARE, ROMEO AND JULIET (1597).

[28] Pageturner96, *She's Not Dead Romeo*, FANFICTION.NET (Jun. 13, 2012), http://www.fanfiction.net/s/8214046/1/Shes-Not-Dead-Romeo. Another illuminating twist on a classic story is the fan fiction piece "Sunny Disposish," which follows Alice (from LEWIS CARROLL, ALICE'S ADVENTURES IN WONDERLAND (1865)), as she makes a return to a Wonderland no longer controlled by the Queen of Hearts. *See* Valadilenne, *Sunny Disposish*, FANFICTION.NET (Apr. 30, 2007), http://www.fanfiction.net/s/3515609/1/Sunny-Disposish. More fan fiction can be found at FANFICTION.NET, http://www.fanfiction.net/ (last visited Feb. 6, 2013).

relationships. Some stories, which occupy a subgenre of fiction called "slash," take this one step further and "posit a same-sex relationship, usually one imposed by the [fan fiction] author and based on perceived homoerotic subtext."[29] Popular slash relationship examples include Captain Kirk and his first officer Spock from *Star Trek* or Harry Potter and his nemesis Draco Malfoy from the *Harry Potter* series.[30] Fan fiction stories can even be "crossovers" that put characters from different source texts into one story. "Fate's Hand," a highly ranked story on FanFiction.net, is a slash crossover piece that describes a love story between Harry Potter and vampire Edward Cullen from the *Twilight* series.[31]

Another distinct characteristic of fan fiction is that it is communal in nature. One important reason why fans create fan fiction is because they want to share it with a larger community of people with similar interests. Therefore, fans at once contribute to and depend on the communities to which they belong. Though not all fans are writers — some are only observers who read fan fiction — these

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[29] Busse and Hellekson, *supra* note 21, at 10; *see generally* Elizabeth Woledge, *Inimatopia Genre Intersections Between Slash and the Mainstream, in* FAN FICTION AND FAN COMMUNITIES IN THE AGE OF THE INTERNET 97 (Karen Hellekson & Kristina Busse eds., 2006). For an examination of fan fiction from a legal perspective, *see* Sonia K. Katyal, *Performance, Property, and the Slashing of Gender in Fan Fiction*, 14 AM. U. J. GENDER SOC. POL'Y & L. 461 (2006). Though often controversial, slash fiction has also allowed authors to reveal interesting truths about their characters: in part as a reaction to slash fiction about the topic, J.K. Rowling admitted that the Hogwarts Headmaster Albus Dumbledore was, in fact, homosexual, *see* Catherine Tosenberger, *"Oh my God, the Fanfiction! Dumbledore's Outing and Online Harry Potter Fandom*, 33 CHILD. LITERATURE ASS'N Q.,ASSOCIATION QUARTERLY 200 (2008).

[30] *See Popular Pairings*, SLASHFIC.ORG, http://slashfic.org/popular.php (last visited Feb. 6, 2013). Media scholar Henry Jenkins postulates that Kirk/Spock was the first slash relationship in this history of slash fiction, *see* Henry Jenkins, *How to Watch a Fan-Vid*, CONFESSIONS OF AN ACA-FAN, http://henryjenkins.org/2006/09/how_to_watch_a_fanvid.html (last visited Feb. 6, 2013). For a detailed analysis of Harry Potter slash fiction, and the influence of the Kirk/Spock slash relationship on current fan fiction, *see generally* Catherine Tosenberger, *Homosexuality at the Online Hogwarts: Harry Potter Slash Fanfiction*, 36 CHILD. LITERATURE ASS'N Q. 185 (2008).

[31] *See* Idika, *Fate's Hand*, FANFICTION.NET (Apr. 23, 2009), http://www.fanfiction.net/s/5014299/1/Fates-hand. Other examples of crossover fan fiction can be found in the crossover section of FanFiction.Net, *see* Crossovers, FANFICTION.NET, http://www.fanfiction.net (last visited Feb. 6, 2013).

fan communities are built on interactions with and interpretations of a specific text. In this sense, fandom can be thought of in the same way as folk culture, in which a particular relationship to a narrative "constructs a group identity, articulates the community's ideals, [and] defines its relationship to the outside world."[32]

Yet, communities play another role for fan fiction writers: they serve as self-governed regulatory bodies. Since fans understand that their writing exists in a legal gray area, most do not want to draw negative attention to themselves. "[F]an fiction writers are internally policed through the 'many slight and sometimes forceful sanctions that members of [the] community impose on each other.'"[33] These terms for fan fiction writers are not necessarily explicit rules, but are instead social norms that are enforced by the communities themselves.[34] As Ranon writes, "[f]an fiction operates within certain cultural norms that make it acceptable to write such fiction as long as one does not make money from it and is not claiming credit for work that is not her own. The standard disclaimer at the head of most fan fiction tells the reader clearly that the author does not own any of the characters she is borrowing."[35]

For authors whose works are celebrated on these websites, the proliferation of fan works is both a blessing and curse. On one hand, fan practices bring extra publicity to a work; giving it an extended lifespan after it hits the shelves. On the other hand, fan fiction reinterprets an author's original work — potentially creating new

[32] Jenkins, *supra* note 18, at 273.

[33] Casey Fiesler, *Everything I Need to Know I Learned from Fandom: How Existing Social Norms Can Help Shape the Next Generation of User-Generated Content,* 10 VAND. J. ENT. & TECH. L. 729, 734 (2007).

[34] *See Id.* at 730-32 (discussing fans' condemnation of a fan who tried to sell copies of her *Star Wars* fan fiction on Amazon.com, which then drew attention and a lawsuit from LucasFilms). *See generally* Steven A. Hetcher, *Using Social Norms to Regulate Fan Fiction and Remix Culture*, 1575 U. PA. L. REV. 1869 (2009).

[35] Ranon, *supra* note 24, at 423.

plotlines or shifts in character that might not align with the author's original intent.[36]

Fan fiction is not a new phenomenon, but the ability to distribute fan fiction globally through the Internet with ease and speed has made authors and rights holders increasingly worried about the digital proliferation of fan fiction. Although fan fiction existed well before the digital age, its impact was very limited as it was only distributed to small niches through fanzines and fan clubs.[37] But the Internet has allowed these fan practices to reach a scale unseen before. Fan practices are no longer only localized projects; many official and unofficial fan websites, like FanFiction.net or the Harry Potter Pottermore[38] network, are truly global in their reach.[39]

In the past, much of free, transformative fan fiction remained virtually unconstrained, albeit with limited impact. It was a truce that in many ways suited both sides: fan fiction authors could continue to create and share their works with other fans, even if limited by geography and distribution costs, and rights holders tolerated fan fiction — and perhaps even benefitted from it — as it did not negatively impact their ability to succeed in the marketplace.

It is this balance that authors believe has come undone because of the Internet. In the Internet age, digital copies of fan fiction are not only easily and cheaply distributed around the world, they also are easy to search for and find, reducing the significant search costs in the

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[36] Historically, sexualized fan fiction can cause tension between the fan fiction writers who write about homoerotic relationships between characters and the original authors who protest these subversive relationships, *see* the discussion about Larry Nevin's "kzinti" characters in Aaron Schwabach, *The Harry Potter Lexicon and the World of Fandom: Fan Fiction, Outsider Works, and Copyright*, 70 U. PITT. L. REV. 387, 403-07 (2009).

[37] McCardle, *supra* note 11, at 441. *See generally* Coppa, *supra* note 12, at 441.

[38] POTTERMORE: A UNIQUE ONLINE HARRY POTTER EXPERIENCE FROM J.K. ROWLING, http://www.pottermore.com (last visited Feb. 28, 2013).

[39] As an example of the globalization of fan fiction, a search for *Harry Potter* stories on FanFiction.net, yields thousands of stories in different languages. Examples include a 19-chapter German fan fiction story called "Harry Christmas Everyone," *see* Glasschmetterling, *Harry Christmas Everyone*, FANFICTION.NET (Nov. 26, 2008), http://www.fanfiction.net/s/4678096/1/Harry-Christmas-Everyone, and "Heterochromia Iridium," which is written in Indonesian, *see* Rochro, *Heterochromia Iridium*, FANFICTION.NET (Sep. 20, 2013), http://www.fanfiction.net/s/9701091/1/Heterochromia-Iridium.

analog age to close to zero. As a consequence, even the most creative piece of free fan fiction today is seen by authors as a potential threat to a rights holder's economic position and creativity.

In the past decade, several authors have issued strong statements explicitly voicing their disapproval of fan fiction and asserting much stricter authorial control over their works. For example, Anne Rice, author of several vampire-inspired fantasy books, such as *Interview with the Vampire*, posted recently on her website: "I do not allow fan fiction. The characters are copyrighted. It upsets me terribly to even think about fan fiction with my characters. I advise my readers to write your own original stories with your own characters."[40] Similarly, and in spite of the fact that most fan fiction is non-commercial, Orson Scott Card, author of popular science fiction series *Ender's Game*, was quoted saying that, "fan fiction, while flattering, is also an attack on my means of livelihood. It is also a poor substitute for the writers' inventing their own characters and situations. It does not help them as writers; it can easily harm me; and those who care about my stories and characters know that what I write is 'real' and has authority, and what fans write is not and does not."[41]

Recently, much media coverage has surrounded the adult romance trilogy *Fifty Shades of Grey*, which constitutes a case of fan fiction success. Today, the books are bestsellers. The books have even reached the top spot of the New York Times bestseller list in spring 2012, after having sold a quarter of a million mostly electronic copies, and later surpassed *Harry Potter* to become the United Kingdom's best-selling book of all time.[42] But the books, by author E.L. James[43] were created originally as fan fiction of the *Twilight* book series, authored by Stephenie Meyer, then reworked before being published as an original work.[44] Meyer was not amused.[45] She previously

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[40] McCardle, *supra* note 11, at 470.

[41] Yoda Patta, *Questions for a Research Paper*, HATRACK RIVER —— THE OFFICIAL WEB SITE OF ORSON SCOTT CARD (1997), http://www.hatrack.com/research/interviews/yoda-patta.shtml.

[42] Tony Jones, *Fifty Shades of Grey outsells Harry Potter. The 'mummy porn' novel breaks another record and outsells all SEVEN J K Rowling books on Amazon*, DAILY MAIL (Oct. 10, 2013, 12:26 PM) http://www.dailymail.co.uk/femail/article-2182618/Fifty-Shades-Grey-outsells-SEVEN-Harry-Potter-books-Amazon.html.

[43] This is a pseudonym.

[44] Jones, *supra* note 42.

stated, in connection with the leak of a manuscript of an unreleased *Twilight* novel called *Midnight Sun*, "As the author of the *Twilight* Saga, I control the copyright . . . . Unfortunately, with the Internet, it is easy for people to obtain and share items that do not legally belong to them. . . . . This has been a very upsetting experience for me, but I hope it will at least leave my fans with a better understanding of copyright and the importance of artistic control."[46] And, as we mentioned, J.K. Rowling in Warner Bros. argued likewise.[47]

These actions are not only remarkable, but also risky departures from the past. By suing those who write fan fiction, rights holders run the risk of alienating some of their most devoted fans and wiping out an entire genre of writing that often helps to promote their works. Aaron Schwabach describes this dilemma: "[W]hile fan fiction may infringe on the content owners' copyright and trademark rights, the fans who create and share it are the biggest and, for some genre works, very nearly the only, market for the owners' works."[48] The result is that those perceived to be a threat to rights holders are very often the same people who are target customers. This strategic dilemma is compounded by the fact that most fan fiction is not-for-profit: no monetary gain accrues in the pockets of fan fiction authors, and potential monetary losses caused by customers reading fan fiction instead of works from the original author are hard to gauge.

Some authors and rights holders have addressed this dilemma through radical, if unconventional responses. For example, George Lucas, director and creator of the *Star Wars* movie trilogy, and his business group, Lucasfilms, at first issued a statement denouncing salacious Star Wars fan works for undermining the company's

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[45] *See generally* Jacqueline D. Lipton, *Copyright's Twilight Zone: Digital Copyright Lessons from the Vampire Blogosphere*, 70 MD. L. REV. 1, 3 (2010). *See also* Margaret Eby, '*Twilight' author Stephenie Meyer won't read '50 Shades of Grey*,' NY DAILY NEWS (Aug. 10, 2013, 1:39 PM), http://www.nydailynews.com/blogs/pageviews/2013/08/twilight-author-stephenie-meyer-wont-read-50-shades-of-grey (discussing how the author refuses to read *50 Shades of Grey* because it is "too smutty" goes against the "innocence" of her series).

[46] Lipton, *supra* note 45, at 3.

[47] *See supra* notes 9–12.

[48] Schwabach, *supra* note 36, at 387.

"'family values' orientation."[49] But upon further realization that fans could actually help his enterprise, Lucas and his business group revised their statements and created their own official online fan portal.[50] There, fans could upload their works to share with a wider *Star Wars* community — but with one large caveat: these fans would have to agree to a contract explicitly stating that if they "create any derivative works based on or derived from the Star Wars Properties, such derivative works shall be deemed and shall remain the property of Lucasfilm Ltd. in perpetuity."[51] In short, Lucas chose the most controlling route of all: devising a way where he could legally own all of it and do with it as he pleased — forever.

But such a strategy, as absolutist as it may look at first blush, is fraught with perils. When authors and rights holders sue authors of freely available fan fiction (that is to a significant extent original) they run the very real legal risk of losing the case because fan fiction creations could pass the existing four-prong fair use test.[52] Therefore, unsurprisingly, authors worried about the downward economy for sales of their books are searching for alternative ways to establish their reign over the world of fan fiction. That is precisely what the argument of control, advanced by Rowling, Rice, and Meyers, among others, is aiming to do — shift from stopping pirated works to crusading against the "kidnapping" of fictional characters.[53]

This control argument, however, rests on a particular and problematic notion of authorship.

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[49] Stendell, *supra* note 12, at 1556; *see also* Henry Jenkins III, *"Star Trek" Rerun, Reread, Rewritten*, 5 CRITICAL STUD. IN MASS COMM. 85, 90 (1988).

[50] *See* Jenkins, *supra* note 12, at 152, 156-57 (stating "In 2000, Lucasfilm offered Star Wars fans free Web space (www.starwars.com) and unique content for their sites, but only under the condition that whatever they created would become the studio's intellectual property.").

[51] LAWRENCE LESSIG, REMIX: MAKING ART AND COMMERCE THRIVE IN THE HYBRID ECONOMY 245 (2008).

[52] 17 U.S.C. § 107 (2006).

[53] *See* Elizabeth F. Judge, *Kidnapped and Counterfeit Characters: Eighteenth-Century Fan Fiction, Copyright Law, and the Custody of Fictional Characters*, *in* ORIGINALITY AND INTELLECTUAL PROPERTY IN THE FRENCH AND ENGLISH ENLIGHTENMENT 22, (Reginald McGinnis ed., 2009).

II. THE ROLE OF AUTHORSHIP

In support of the control argument, authors assert that they are the sole and true creators of their intellectual works, and thus they (and only they) are permitted to retain and exercise intellectual control over the fictional characters, contexts, and worlds they have created. Conceptualizing the original author's power with such breadth is the core of the control argument and necessary for the control argument to succeed in its sweeping reach. By the same token, however, this argument has two major weaknesses.

The first challenge to the control argument is historical. Literary and copyright experts have shown that the idea of the author as a singular point of creative genius is a product of the Romantic era of the late 18th and early 19th century and its distinct ideas and contexts. [54] It is a "culturally, politically, economically, and socially constructed category rather than a real or natural one."[55] Before then, writing was seen as a largely derivative process in which authors built upon ideas and works that preceded them — and the concept of authorship reflected that.[56] Only with the Romantic age came the notion that writing was the manifestation of flashes of genius channeled through a solitary author — and so spread the popularity of the concept of authorship that is still espoused by literary authors today.[57] It was also in this period that authors began to desire control

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[54] Martha Woodmansee, *The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the 'Author'* 17 EIGHTEENTH-CENTURY STUDSTUDIES 425, 427 (1984).

[55] Peter Jaszi, *Toward a Theory of Copyright: The Metamorpheses of "Authorship,"* 1991 DUKE L.J. 455, 459 (1991).

[56] Martha Woodmansee, *On the Author Effect: Recovering Collectivity*, *in* THE CONSTRUCTION OF AUTHORSHIP: TEXTUAL APPROPRIATION IN LAW AND LITERATURE 15, 17 (Martha Woodmansee Jaszi et al. eds., 1994) (stating, "From the Middle Ages right down through the Renaissance new writing derived its value and authority from its affiliation with the texts that preceded it, its derivation rather than its deviation from prior texts.").

[57] *See* Woodmansee, *supra* note 54 (stating, "'Inspiration' came to be explicated in terms of *original genius*, with the consequence that the inspired work was made peculiarly and distinctively the product – and the property – of the writer.").

not only over the composition of words that they published, but over the specific ideas — characters, places, etc. within their works.[58]

The evolution of the use of the quotation mark provides a salient example of the shift of viewing authorship as a derivative process to one of solitary genius. In the Middle Ages, quotation marks were initially used to highlight important or interesting utterances by authoritative classical or patristic sources.[59] "[R]ather than cordoning off a passage as property of another," writes De Grazia, "quotation marks flagged the passage as property belonging to all — 'common places' to be freely appropriated (and not necessarily verbatim and with correct authorial ascription). Not until after the seventeenth century did quotation marks serve to enclose an utterance as the exclusive material of another."[60] In contrast, starting with the Romantic period, quotation marks "privilege[d] and protect[ed] words belonging to the individual who produced them."[61] Simultaneously with the shift from communal authorship to an emphasis on the individual, the quotation mark began to change to denote exclusivity rather than communalism.[62]

Similarly, if the meaning of "authorship" is in fact temporally and socially contingent, and thus changing over time, is it likely that the meaning of "authorship" in the U.S. Copyright Act would remain static, and linked to the romantic idea of authorship across the more

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[58] One example of this is Cervantes, author of *Don Quixote*, using his own characters to make a claim that the original author alone should have the right to decide on extensions, including "second-parts" (sequels) of his characters' stories. Judge, *supra* note 53, at 48-49 (providing a detailed analysis of the historical roots of these assertions of authorial control).

[59] Margreta de Grazia, *Sanctioning Voice: Quotation Marks, the Abolition of Torture, and the Fifth Amendment*, *in* THE CONSTRUCTION OF AUTHORSHIP: TEXTUAL APPROPRIATION IN LAW AND LITERATURE 281, 288 (Martha Woodmansee Jaszi et al. eds., 1994).

[60] *Id.* at 289.

[61] *Id.*

[62] *Id.*

than a dozen revisions over two hundred years?[63] Fervent advocates of the control argument may suggest that the late 18th century notion of authorship does survive under a strict originalist interpretation of the U.S. Constitution and the original Copyright Act. They may also suggest that the Founding Fathers fixed much of the meaning of authorship when they drafted the Constitution, and gave Congress the power to give to authors exclusive rights for a limited period of time "to promote progress of Science and the useful Arts,"[64] which influenced Congress to pass the original Copyright Act in 1790.

But the trouble with such a line of argument is that both the Constitution and the Copyright Act do not conceptualize the author in romantic terms. Rather, and in stark contrast to author's rights in continental Europe, both the U.S. Constitution and the Copyright Act clearly aim to strike a pragmatic balance between empowering authors and enabling fair use, so as to create incentives for creative production as well as mechanisms for making use of creative works.

Eminent scholars have provided us with a much more nuanced historical view of the function of copyright in general and the meaning of authorship in particular. In their writings, authors aiming to assert more control over their works to counter the perceived threat of fan fiction will find little support for their viewpoint.[65]

Yet another counterargument to this narrow view of authorship is one that has received less attention in the legal literature so far, but is equally important and particularly applicable to the context of fan fiction. It focuses on the logical inconsistencies of a unitary meaning of authorship, and differing *practices* of authorship and control.

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[63] United States copyright law was based on the Statute of Anne, *see* Copyright Act of 1970, I Stat. 124 (1790). It was revised in 1831, *see* Copyright Act of 1831, 4 Stat. 436 (1831); 1870, *see* Copyright Act of 1870, 16 Stat. 212 (1870); 1909, *see* Copyright Act of 1909, Pub. L. No. 60-349, ch. 320, § 25, 35 Stat. 1075, 1081 (1909) ch. 320, 35 Stat. §§ 1075-1088 (1909); 1976, *see* Copyright Act of 1976, Pub. L. No. 105-278, 112 Stat. 2827; in 1998 with the Sonny Bono Act, *see* Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998); and in 2006, *see* Section 115 Reform Act (SIRA), 17 USC § 115 (2006).

[64] U.S. CONST. art. I, § 8, cl. 8.

[65] *See generally* Jaszi, *supra* note 55; LYMAN R. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE (1968); MARK ROSE, AUTHORS AND OWNERS: THE INVENTION OF COPYRIGHT (1993); Woodmansee, *supra* note 56; THE CONSTRUCTION OF AUTHORSHIP (Martha Woodmansee et al., eds., 1994).

A. Academic Authorship and Control

In arguing that they should have full control over the worlds that they create, authors assert that control is central to the practice of creative production. That is not true. In fact, a very large field of authorship exists, which includes many features of fan fiction, and has thrived for many decades *without* authors requesting tighter controls. It is the field of academic works.

Academics take published ideas of others and expand them, apply them to different contexts or genres, test them, rephrase and reframe them, even reinterpret them. All of that is done without the original author having any control of how their original narrative is being used and reshaped, *as long as* the original work is being correctly referenced and cited. And all of that is done not primarily to make economic gains, but to enlarge the body of knowledge (and perhaps enhance one's own scholarly reputation). Put differently, one professor once wrote a disclaimer on an academic work that, "[t]his essay of mine, though it will be added to the inventory of my own intellectual capital, my *curriculum vitae*, and hopefully will count toward enhancing my academic status and income — is still a gift, to be consumed and circulated in the gift culture of research and scholarship; no one will pay me for writing it and I will not sell it."[66]

Fan fiction is conceptually similar. Most, if not all, fan fiction authors reference the original author, often with a level of respect and reverence rarely seen in academia. Most fan fiction takes existing narratives and ideas, and puts these in different settings, novel contexts, or gives them very different twists. As with academia, fan fiction writers form an interpretive community where "[m]anifestos on characterization, reactions to individual moments in the source text, community in-jokes rooted in the source text and the community's reactions to it, and creative fan works such as fan fiction, artwork, and vids all contribute to a shared understanding of the source text."[67] In the same way that academic authors seek to augment a body of knowledge with their writing, so do fan fiction authors hope to contribute their interpretations and analysis to a narrative growing in richness.

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[66] Jim Swan, *Touching Words: Helen Keller, Plagiarism, Authorship, in* THE CONSTRUCTION OF AUTHORSHIP 57, 75 n. 61 (Martha Woodmansee Jaszi et al., eds., 1994).

[67] Kaplan, *supra* note 26, at 135-36.

Some academic authors may bemoan the fact that they have no control over their ideas, and often not even over the concrete narrative through which they present them. But most accept that a work building on theirs may get them more readers and greater impact — as long as their original work is properly cited. No credible academic would want others to stop applying a methodology she has developed so that she can retain complete control over it, neither would she want total control over how her ideas, her arguments, and her narrative is being received, further developed, enhanced, and perhaps even fundamentally changed by others.[68]

In short, within academic authorship there already exists a large and burgeoning field of intellectual production in which, much like with fan fiction, authors do not assert intellectual control beyond accurate referencing of the original. With such a *precedent of practice* in place, how can fiction authors argue successfully that they are entitled further controls over the use of the characters and other narrative elements in their works?

B. The Unitary Meaning of Authorship

Authors of fiction, of course, may suggest that their authorship is different from that of academic, non-fiction authors. They may suggest that having a fan fiction author write about a character modeled after Harry Potter, but putting him in a very different context — within a different culture or with an alternative attitude for instance — is a much more direct and very different violation of an author's control over her intellectual offspring when compared to the dry (but duly referenced) appropriation of ideas in a complicated academic paper.[69]

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[68] Corynne McSherry describes the academic "gift" economy as such: "Once accepted for publication, an article can garner recognition and status for the giver, and the more recognition the gift (and therefore the giver) receives, the greater the value of the original and subsequent gifts from that person. The community, in other words, determines value . . . Community ties are further affirmed through repayment in the form of reciprocal papers, citations to the work, financial support (in the form of research funding) for the creation of new 'gifts.'" CORYNNE MCSHERRY, WHO OWNS ACADEMIC WORK? BATTLING FOR CONTROL OF INTELLECTUAL PROPERTY 76 (2001) (citations omitted).

[69] *Cf.* Chip Scanlan, *What is Narrative, Anyway?,* POYNTER (Sept. 29, 2003, 7:48 AM), http://www.poynter.org/how-tos/newsgathering-storytelling/chip-on-your-shoulder/16324/what-is-narrative-anyway.

When examined closely, however, there is no fundamental difference between fiction and academic non-fiction. Consider for a moment this description of a famous piece of writing: "[It] is obviously a narrative, a tale of conflict, [with] competing characters, resolution, and a 'happy' ending."[70] From this description, one might intuitively guess that the statement is about a work of fiction and make any number of guesses, from *Pride and Prejudice* to *Harry Potter,* about what work it might be. However, this description is in fact about the seminal 1953 paper by Dr. James D. Watson and Dr. Francis H. C. Crick entitled "Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid."[71] Far from a fictional work about an imaginary world, it laid out the theory of the very building blocks of human kind and was the first to identify the double-helix structure of DNA.[72] Drs. Watson and Crick applied the same creative processes – finding ways to engage their audience, weaving salient points into a cohesive narrative, and developing a satisfying conclusion for their tale – that are usually attributed only to writers of fiction. And they are not alone. All non-fiction authors advance a narrative. At times, it may have different elements, and different features compared with a fictional narrative, but it aims to achieve the same ends: to be persuasive and compelling.

History, too, may seem like a collection of facts that need only to be laid out chronologically for a discerning reader to appreciate, but it is actually a series of interpretations written by specific authors. Academics in the field are ultimately crafting history through what, in essence, is storytelling — advancing an engaging and convincing narrative. Sociologists and anthropologists engage in similar forms of storytelling when they take their observations of different cultures and attempt to craft explanations for how certain cultural traditions came into place. Much like a fan fiction writer might interpret a source text to produce another narrative, so must historians and sociologists turn their interpretations of different cultures into written word. "Every

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[70] Walter R. Fisher, *Narration, Knowledge, and the Possibility of Wisdom, in* RETHINKING KNOWLEDGE: REFLECTIONS ACROSS THE DISCIPLINES 169, 181 (Robert F. Goodman et al., eds., 1995).

[71] JD Watson and FH Crick, *Molecular structure of nucleic acids; a structure for deoxyribose nucleic acid*, 171 NATURE 737 (1953).

[72] *See generally* JAMES D. WATSON, THE DOUBLE HELIX: A PERSONAL ACCOUNT OF THE DISCOVERY OF THE STRUCTURE OF DNA (Touchstone 1996) (1968).

reading," Czarniawska writes, "is an interpretation, and every interpretation is an association: tying the text that is interpreted to other texts, other voices, other times, and places."[73] These academics, much like literary authors such as Rudyard Kipling or Salman Rushdie, take in the nuances of other cultures and then instill meanings into these interpretations by writing about them for readers to absorb.[74]

What holds for the social sciences, like anthropology or sociology, is even more prevalent in the humanities. Academics who work in the field of English literature predominantly write papers based on close readings of certain works — parsing out themes and motifs, providing deep psychological readings of a character's motives, and so on — in an attempt at adding to a wider body of knowledge about that source text. A quick search on JSTOR for academic articles about Shakespeare's *Romeo and Juliet*[75] produces results that are not all too different from a FanFiction.net search for the same text. Much like there exists Benvolio and Mercutio slash fiction,[76] scholars have written articles deeply analyzing potentially homoerotic relationships in the text.[77] Similar to a piece of crossover fan fiction, one academic wrote a lengthy discussion of the relationship and intersections between Shakespeare's *A Midsummer Night's Dream* and *Romeo and Juliet.*[78]

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[73] BARBARA CZARNIAWSKA, NARRATIVES IN SOCIAL SCIENCE RESEARCH 135 (2004).

[74] *See generally* VICTOR TURNER AND THE CONSTRUCTION OF CULTURAL CRITICISM: BETWEEN LITERATURE AND ANTHROPOLOGY (Kathleen M. Ashley ed., 1990). A famous example of cultural anthropology is Clifford Geertz' studies of rural Indonesian culture and writings about the importance of interpretation, *see* CLIFFORD GEERTZ, THE INTERPRETATION OF CULTURE (1973). Geertz's writings can be contrasted with the types of cultural descriptions found in literary novels like Kipling's *The Jungle Book* or Rushdie's *Midnight's Children*. *See* RUDYARD KIPLING, THE JUNGLE BOOK (1894); SALMAN RUSHDIE, MIDNIGHT'S CHILDREN (1980).

[75] SHAKESPEARE, *supra* note 27.

[76] NaiveLove, *Unnatural*, FANFICTION.NET (July 21, 2012), http://www.fanfiction.net/s/8344243/1/Unnatural. More *Romeo and Juliet* fan fiction can be found at FANFICTION.NET, http://www.fanfiction.net/book/Romeo-and-Juliet/ (last visited Feb. 6, 2013).

[77] Luis M. Garcia Mainar, *Shakespeare's* Romeo and Juliet *and Male Melodrama*, 20 ATLANTIS 27, 27 (1998).

[78] Samuel B. Hemingway, *The Relation of* A Midsummer Night's Dream *to* Romeo and Juliet, 26 MOD. LANGUAGE NOTES 78 (1911).

While *Romeo and Juliet* might not be the most popular source text for fan fiction, one can easily see the strong correlations in themes and subject matter that occur in both fan fiction and academic writing. Furthermore, just as a fan fiction writer would in the same process, academics also write from the assumption that their readers already understand the characters and events from the source text, and argue their analysis through a skillfully crafted narrative.

At its very core, then, writing — whether it is academic, literary, or fan fiction — is storytelling. And all authors are storytellers — regardless of the genre to which their writing belongs. There is simply no reason why one should award a particular cast of authors — writers of "original" fiction — with a level of control over their intellectual creations that other authors do not enjoy.

The notion of equality in authorship, incidentally, is also the spirit of U.S. copyright law, which in itself does not differentiate among authors based on whether they produce fiction or non-fiction. Copyright law very clearly affords the same type of protection to every author, irrespective of genre.[79] Treating all authors similarly — irrespective of what they write about — is one of its foundations.[80] Any argument to the contrary, any suggestion that differential treatment based on genre can be discerned from the very unitary definition of authorship in the Copyright Act would have to be exceptionally persuasive and based on a compelling factual basis — something that the authors arguing for more control so far have failed to provide.

III. CONCLUSIONS – CONSEQUENCES FOR THE TREATMENT OF FAN FICTION

In this essay, we looked at the validity of the "control" argument that authors and rights holders have advanced to restrict fan fiction. We analyzed the specific qualities of fan fiction, and its relationship to "original" authorship. We suggested that even though the very concept of authorship is socially and temporally contingent,

[79] The U.S. Copyright Act does differentiate between certain types or categories of authors; in fact it does not include a definition of "author" in its list of definitions, which implies that it has not set boundaries on what an author should be. *See* 17 U.S.C. § 101 (2011).

[80] *See id.*

legal authorship is universal, irrespective of the type of work written or the genre to which it belongs.

Based not only on a formal legal argument grounded in the U.S. Constitution and the Copyright Act, our paper traced well-accepted authorship norms in the academic community and grounded our argument in the *practice of authorship.* Authorship, we argued, was the art of writing persuasive and compelling narratives — whether this meant scholarly work, fictional novels, or fan fiction stories. Bestowing higher power to the authors of one type of work would mean ignoring the universality of the U.S. Constitution. As a consequence, at least in the U.S. context, literary authors' extensive claims of control over their intellectual works should be resisted.

By the same token, this does not leave authors without protection. If and when a work of fan fiction turns commercial or otherwise morphs into a significant threat, authors can advance conventional copyright claims against fan fiction authors, and will likely be relatively successful.

That may constrain some of the most entrepreneurial fan fiction authors. But it will likely leave the vast majority of non-commercial fan fiction, which has a very contained impact, unrestrained. Moreover, it gives courts that have been asked to adjudicate borderline cases a chance to develop pragmatic rules of delineating permissible fan fiction from clear copyright violations without having to resort to expansive authors' rights of control. Such an approach is not only consistent with a unitary view of authorship; it also is consistent with existing copyright law.

PANDORA & SPOTIFY: LEGAL ISSUES AND LICENSING REQUIREMENTS FOR INTERACTIVE AND NON-INTERACTIVE INTERNET RADIO BROADCASTERS

SOFIA RITALA*

TABLE OF CONTENTS

* The author would like to thank Professor Edward Z. Fair for his help and suggestions with this article. In addition, she would like to thank Professor Robert Bone for his inspiring lectures on IP law.

I. INTRODUCTION

The ways of listening to music have been changing rapidly since the beginning of the Digital Age. Music and software industries have experimented with different models and programs that have enabled the public to get access to songs more efficiently through their own desktop computers, and later through their mobile devices. Some of these experiments have failed and have been declared to infringe exclusive distribution and performance rights within the meaning of the Copyright Act.[1] However, innovation has not ceased, and the future of listening to music has started to take its shape. Some of the big players in the current market are internet radio broadcasters, such as Spotify and Pandora, which fund their services by selling advertisements and offering paid subscriptions,[2] thus enabling their users to mass consume music at a lower cost than pay-per-download services, such as the iTunes Store.[3]

Internet radio broadcasters' service content comprises of public domain and copyrighted music, and for the latter licenses must be obtained. In analyzing the two broadcasters' licensing schemes, it is important to understand the different works and copyrights involved.[4] Two different works of authorship make up the material embodied in a phonorecord: the underlying musical work (the notes and the lyrics), and the specific performance of the song (the sounds fixed on the phonorecord, performed by musicians and singers; i.e. the sound recording).[5] For these two works, rights granted by copyright law

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[1] 17 U.S.C. §§ 101-1332 (2006); *see generally* A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004 (9th Cir. 2001) (holding the peer-to-peer file sharing service Napster contributorily and vicariously liable for copyright infringement).

[2] Ben Sisario, *Pandora and Spotify Rake in The Money and Then Send It Off in Royalties*, N.Y. TIMES (Aug. 24, 2012, 6:07 PM), http://mediadecoder.blogs.nytimes.com/2012/08/24/pandora-and-spotify-rake-in-the-money-and-then-send-it-off-in-royalties/.

[3] The price of one song on iTunes is around one dollar, whereas Spotify and Pandora can even be used for free, although some users choose to pay a monthly fee for advertisement-free service.

[4] In order to clarify the subject matter, this paper includes diagrams that describe the rights involved.

[5] ROBERT P. MERGES ET AL. *Intellectual Property in the New Technological Age* 502 (2012).

must be considered separately. Copyright owners of musical works have exclusive rights to reproduce, distribute, and perform their works, on the one hand, and copyright owners of sound recordings have exclusive rights to reproduce, distribute, and perform their works by means of digital audio transmission, on the other.[1] Sound recording performance rights are affected by a statutory licensing scheme,[2] whereas musical work distribution and reproduction rights are subject to a compulsory mechanical licensing scheme.[3]

Pandora and Spotify acquire licenses and pay royalties for the music they include in their services. The specific licenses each Internet radio broadcaster has to obtain, however, are rather different. The differences in licensing requirements flow from the different services Spotify and Pandora provide. While Pandora is a so-called "non-interactive" service and has to deal with fewer licenses, Spotify's on-demand streaming qualities make it an "interactive" service,[4] which means it also has to take into consideration other licensing rights in addition to the mere performance of a song, such as distribution and reproduction rights.[5]

Acquiring these different types of licenses has its complications. Neither of the companies is doing well financially,[6] and Pandora, especially, is shifting the blame to the asymmetrical licensing structure that allegedly puts non-interactive Internet radio broadcasters at a much worse position compared to traditional and satellite radio in terms of royalty rates.[7] Spotify, which is not able to benefit from the statutory licensing scheme for sound recordings, on the other hand, has had to face the costs of negotiating with thousands of individual record labels for sound recording licenses. Both companies also negotiate with performing rights organizations —the representatives of music publishers (hereinafter "PRO")—for

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[1] 17 U.S.C. §§ 106(1), (3), (4) (2006). They also have an exclusive right to create derivative works (granted by §106(2)), but that right is not relevant for the purposes of this paper.

[2] *Id.* § 114.

[3] *Id.* § 115.

[4] *Id.* § 114(j)(7).

[5] *See* 17 U.S.C. § 115 (2006).

[6] Further discussed in sections II.A. and III.A.

[7] *See* Ben Sisario, *Fight Builds Over Online Royalties*, N.Y. TIMES, November 5, 2012, at B1.

performance rights in musical works. However, publishers have started to withdraw their digital performance rights from these organizations, and the breaking down of collective licensing may prove costly for both Pandora and Spotify.[1] Moreover, Pandora has started a litigation battle against ASCAP, a PRO, for only offering "ill suited and not reasonable" royalty rates.[2]

The question now is whether the current legislative framework is adequate to support these new ways of delivering music from its creators to the public. There are two policy considerations that seem to pull in two different directions: while it is necessary and desirable to incentivize the creation of new music, the need to incentivize progress on the other frontier—where more efficient ways of achieving this social benefit are created by developing more advanced methods of delivering recorded music—should also be taken into account. The Copyright Act, as amended in the past twenty years, has struck the balance between these two considerations, for now. There still seems to be friction, however, since neither Pandora nor Spotify is viable as of yet, and at the same time, the music industry is still struggling to come to terms with the changes brought by the Digital Age.[3] Should Internet radio broadcasters further innovate to make their business models more feasible, or is that even plausible given the current requirements set by the Copyright Act? Is it possible to strike a balance between the two policy considerations without compromising the interests of one industry over the other to an extent where that industry is unable to contribute to social welfare? Do these policy considerations equally support the promotion of "progress" in "useful arts," as established in the Copyright Clause of the Constitution?[4] This paper will look into the difficulty of balancing by examining the current licensing requirements and legal issues that the two different Internet radio broadcasters are facing.

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[1] Ed Christman, *Universal Music Publishing Plots Exit From ASCAP, BMI,* BILLBOARD (Feb. 1, 2013, 4:10 PM), http://www.billboard.com/biz/articles/news/publishing/1537554/universal-music-publishing-plots-exit-from-ascap-bmi.

[2] *Pandora Is Now Suing ASCAP To Lower Songwriter Royalties…*, DIGITAL MUSIC NEWS (November 6, 2012), http://www.digitalmusicnews.com/permalink/2012/121105ascap.

[3] Alexandra Topping, *Music industry struggles to make digital leap of faith*, THE GUARDIAN (Jan. 30, 2011), http://www.guardian.co.uk/media/2011/jan/31/music-industry-digital-midem.

[4] U.S. CONST. art. I, § 8, cl. 8.

II. PANDORA

A. *Pandora's Business Model*

Pandora delivers playlists for its users based on their taste in music. For example, a Pandora user enters a type of music genre or a name of an artist or a band, which the program then uses to generate a unique playlist that consists of tracks that are within the genre or similar to the artist or band entered.[1] The users only have a limited number of "skips" per hour they can use to move from an undesired song to the next one, and they cannot fast-forward songs.[2] Since the users only have limited control over the songs that they hear, Pandora is a non-interactive Internet radio service provider.[3]

Pandora's main source of revenue is advertisement sales for mobile devices as well as desktop computers.[4] The ads may be heard as audio between the songs, or they can be visual ads that pop up on the user's screen.[5] Pandora also generates revenue from user subscriptions: if a user subscribes to "Pandora One," and pays a monthly fee of $3.99 per month or $36 per year, the user is able to enjoy the service ad-free.[6] However, as for its revenue, Pandora relies almost entirely on advertisement sales, which make up around 85% of Pandora's revenue.[7]

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[1] Pandora, http://www.pandora.com.

[2] *See id.*

[3] 17 U.S.C. § 114(j)(7) (2006).

[4] PANDORA, *Detailed Historical Financials Q2FY14*, 3 (last visited Oct. 10, 2013), http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MTI5NjA3fENoaWxkSUQ9LTF8VHlwZT0z&t=1.

[5] PERSONALIZATION AND MUSIC DISCOVERY IGNITE PASSION FOR INTERNET RADIO, at 7, http://www.pandora.com/static/ads/media-kit/TheChangingLandscapeOfRadio.pdf (last visited Nov. 2, 2013)

[6] PANDORA ONE, http://www.pandora.com/one (last visited Apr. 12, 2013).

[7] PANDORA, *Detailed Historical Financials Q2FY14*, 3 (last visited Oct. 10, 2013), http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MTI5NjA3fENoaWxkSUQ9LTF8VHlwZT0z&t=1.

In the past five years, Pandora has incurred losses of $105 million.[1] In fact, the Internet radio service provider has never had a profitable year.[2] The licensing costs that Pandora faces are significant, in comparison to its revenue. It pays royalties both to SoundExchange and to PROs for the performance of the sound recordings and musical works to which copyrights are attached.[3] "Content acquisition" costs (i.e. royalty payments) alone take up a large proportion of its income stream, for example, in 2011, 54% of Pandora's revenue was paid in royalties.[4]

Figure 1 summarizes Pandora's business model.

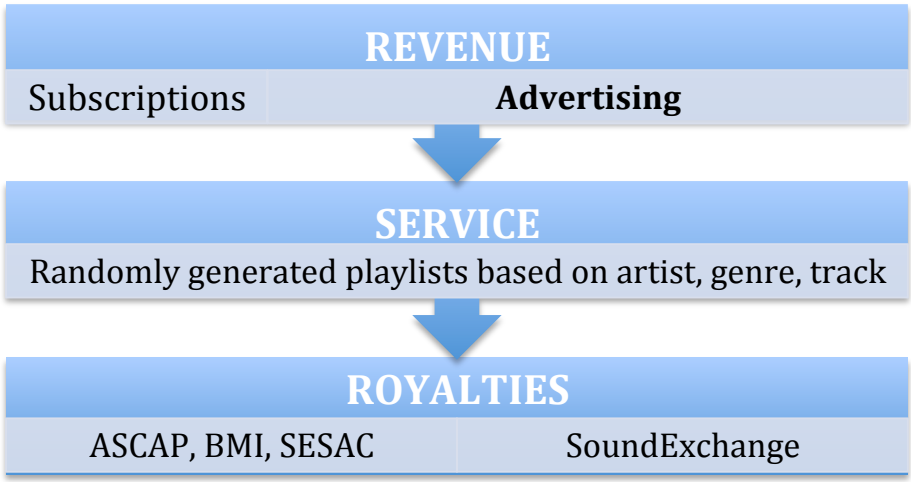

Fig. 1

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[1] Mark Rogowsky, *Pandora Finds Little Profit in Reinventing Radio*, FORBES (Sep. 10, 2012, 4:27 AM), http://www.forbes.com/sites/markrogowsky/2012/09/10/pandora-finds-little-profit-in-reinventing-radio/.

[2] *See id.*

[3] Claire Suddath, *Should Pandora Pay Less in Music Royalties?* BLOOMBERGBUSINESSWEEK (Jul. 1, 2013) http://www.businessweek.com/articles/2013-07-01/should-pandora-pay-less-in-music-royalties.

[4] Ben Sisario, *Pandora and Spotify Rake in The Money and Then Send It Off in Royalties*, N.Y. TIMES (Aug. 24, 2012, 6:07 PM), http://mediadecoder.blogs.nytimes.com/2012/08/24/pandora-and-spotify-rake-in-the-money-and-then-send-it-off-in-royalties/.

Currently, Pandora has over 175 million registered users worldwide, 65.6 million of which are classified as "active."[1] Despite Pandora's steadily growing popularity, the service is failing to become profitable.[2] In order to discover the reasons behind the business's disproportionately high content acquisition costs, one should look into the licensing requirements Pandora has to fulfill.

B. *Pandora's Licensing Scheme*

1. In General

The rights granted to copyright holders can be found in § 106 of the Copyright Act.[3] For Pandora, the significant rights it has to consider are the public performance rights of §§ 106(4) and (6), for the underlying musical works and sound recordings respectively.[4] Unlike interactive services, such as Spotify, Pandora does not have to consider the reproduction right of § 106(1),[5] nor the distribution right of § 106(3).[6]

Section 106(4) gives the copyright owner an exclusive right to perform their musical work publicly.[7] "To perform" a copyrighted work is defined to mean "to recite, render, *play*, dance, or act it, either directly or *by means of any device* or process."[8] To perform a work "publicly" means "*to transmit* or otherwise communicate *a performance . . . to the public*, by means of *any device* or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times."[9] This section does not apply to sound recordings,[10] but it does apply to the underlying

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[1] *See* PANDORA, *supra* note 7, at 7.

[2] *See id.*

[3] 17 U.S.C. § 106 (2006).

[4] *Id.* §§ 106(4), (6).

[5] *Id.* § 106(1).

[6] *Id.* § 106(3).

[7] *Id.* § 106(4).

[8] *Id.* § 101 (emphasis added).

[9] 17 U.S.C. § 101 (2006 & Supp. 2012) (emphasis added).

[10] *See id.* § 114(a).

musical compositions and lyrics that are performed (i.e., the musical work).[1] Since Pandora meets both of the definitions, it pays songwriters and music publishers royalties for the songs that Pandora plays.[2] This happens by paying the royalties due first to PROs—American Society of Composers, Authors and Publishers (ASCAP), Broadcast Music, Inc. (BMI) and Society of European Stage Authors and Composers (SESAC)—with whom it has license agreements, and who in turn distribute the money between the songwriters and publishers that they each represent.[3]

Copyright owners of sound recordings have the exclusive right to perform their work publicly by means of digital audio transmissions.[4] Sound recordings can be licensed under § 114 of the Copyright Act,[5] which was amended in 1995 by the Digital Performance Right in Sound Recordings Act (DPRA),[6] to first, create the limited performance right in sound recordings, and second, to establish a statutory licensing scheme for the performance of sound recordings.[7] In order to benefit from the statutory license, a service may not be an interactive one,[8] and the service must comply with the "performance complement."[9] The latter is a qualification, set by the Copyright Act, that limits the number of songs from the same artist or album that Pandora can play within a specified time limit.[10] Therefore, the amount of times a user can skip songs is limited.[11] The rates for sound recordings are overseen by the judges in the Copyright Royalty Board (CRB), and the royalties are paid by the licensees to SoundExchange, which then distributes them to the copyright owners

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[1] *Id.*

[2] Suddath, supra note 3.

[3] *Id.*

[4] *See, e.g.*, 17 U.S.C. § 101 (2006 & Supp. 2012) (for definition).

[5] *Id.* § 114.

[6] KEVIN PARKS, MUSIC & COPYRIGHT IN AMERICA 227 (American Bar Association, 2012).

[7] 17 U.S.C. §§ 106(6), 114 (2006 & Supp. 2012).

[8] *Id.* § 114(2)(A)(i).

[9] *Id.* §§ 114(d)(2), (j)(13).

[10] *Id.*

[11] PANDORA, http://www.pandora.com (last visited Nov. 15, 2013).

of the sound recordings (usually record labels and recording artists).[1] SoundExchange was appointed by the judges of the Copyright Royalty Board as the sole entity that collects statutory royalty payments for sound recordings.[2]

Figure 2 demonstrates Pandora's general licensing scheme.

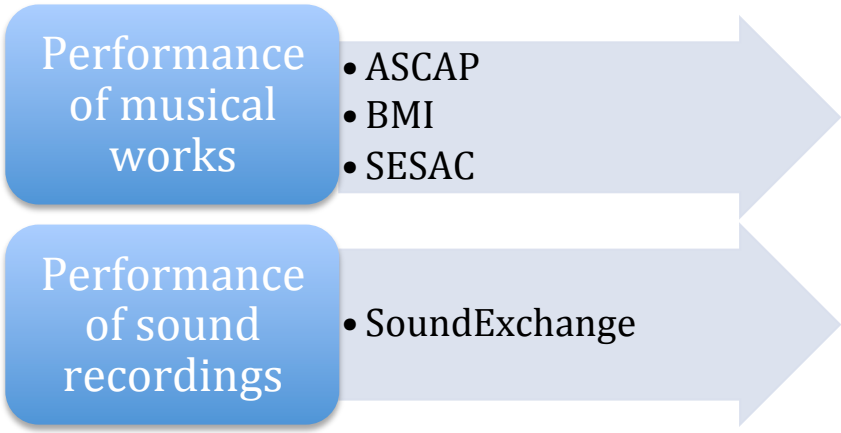

Fig. 2

2. Statutory Licensing Scheme for Sound Recordings in Further Detail and its Controversy

The statutory licensing scheme arguably enables efficient licensing of copyrighted material because, in the absence of an agreement between Pandora and SoundExchange, the Copyright Royalty Board (hereinafter "CRB") may set the rates.[3] In theory, the rates as set apply to all copyrighted sound recordings that Pandora wishes to license, but the reality has been slightly different: the last

[1] SOUNDEXCHANGE, *Working With SoundExchange,* http://www.soundexchange.com/wp-content/uploads/2013/07/About-SX-Infographic.pdf (last visited Nov. 2, 2013).

[2] *Id.*

[3] 17 U.S.C. § 114 (2006 & Supp. 2012).

time the rates were set by the CRB, Pandora managed to negotiate an approximately 40% reduction in those rates, claiming they were too high and that they would be "ruinous" to its business.[1] The discount expires in 2015,[2] and after Pandora's attempts to pass legislation to further lower the royalty rates internet radio broadcasters pay, one could argue that it is unlikely that artists will renew the discount.[3] The unlikeliness of renewal is further increased by the fact that the discount, granted in 2009,[4] may have been a result of the music industry's need to find alternative ways of getting its music out to listeners in a market that was becoming highly disturbed by illegal downloads.[5] Now that the market and the demand for Internet radio broadcasters have been clearly established, copyright owners are unlikely to give the extra support to Pandora.

How are the statutory rates normally determined? First, the rates only apply for non-interactive Internet radio broadcasters[6]—terrestrial broadcasters are exempt from having to obtain a license for the performance of a sound recording[7]—and the rates for satellite radio are determined under the "801(b) standard" (referring to §801(b)(1) of the Copyright Act).[8] The basis for Internet radio broadcaster royalty rate setting, on the other hand, is the "willing buyer, willing seller" standard,[9] which produces higher rates than the 801(b) standard. This is because the former attempts to replicate an open market value for the licensed content, whereas the 801(b) standard seems—in accordance with the purposes of copyright law[10]—to focus on

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[1] Sisario, *supra* note 7, at B1.

[2] *Id.*; Ben Sisario, *Digital Notes: Music Stars Criticize Pandora On Digital Royalties*, N.Y. TIMES (Nov. 14, 2012, 4:49 PM), http://mediadecoder.blogs.nytimes.com/2012/11/14/digital-notes-music-stars-criticize-pandora-on-digital-royalties/.

[3] Further discussed in section II.C.i.

[4] *See* Sisario, *supra* note 7, at B1.

[5] *See* David Goldman, *Music's lost decade: Sales cut in half*, CNN MONEY (Feb. 3, 2010, 9:52 AM), http://money.cnn.com/2010/02/02/news/companies/napster_music_industry/.

[6] 17 U.S.C. § 114(d)(2)(A)(i) (2006).

[7] *Id.* § 114(d)(1)(A).

[8] *Id.* § 114(f)(1)(B).

[9] *Id.* § 114(f)(2)(B).

[10] *See* U.S. CONST. art. I, § 8, cl. 8.

increasing the availability of copyrighted material to the public together with incentivizing further creation of sound recordings.[1]

Second, the actual determination of royalty rates happens either by negotiation or arbitration.[2] The CRB is involved in both options.[3] The parties (here, Pandora and SoundExchange) may agree on rates through negotiations, and present them to the CRB for adoption.[4] If the judges of the CRB decide to adopt the agreed rates, similarly situated parties are allowed to opt in.[5] In the case that the parties have not reached agreement, the CRB judges will conduct arbitration in order to set the rates,[6] in accordance to the "willing buyer, willing seller" standard.[7] This system encourages Pandora and SoundExchange to reach an agreement through independent negotiations and without intervention.

However, the asymmetrical licensing structure for different types of radio has been a point of concern for Pandora, as it sees this as "unfair."[8] The broadcaster also worries about the CRB judges' level of expertise, since they must make royalty rate decisions based on a standard that requires deep understanding of the workings of the music industry. Alternative solutions for these concerns are manifested in the Internet Radio Fairness Act.[9]

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[1] The standard, as iterated in §801(b)(1), comprises of four "objectives" that the judges of the CRB must take into account when setting the royalty rates.

[2] *Licensing 101* at *How are the rates and terms determined?*, SOUNDEXCHANGE, http://www.soundexchange.com/service-provider/licensing-101/ (last visited Nov 2, 2013).

[3] *Id.*

[4] *Id.*

[5] *Id.*

[6] *How are rates set?*, SOUNDEXCHANGE, http://www.soundexchange.com/service-provider/licensing-101/#q7 (last visited Apr. 12, 2013).

[7] 17 U.S.C. § 114(f)(2)(B) (2006 & Supp. 2012).

[8] Tom Pakinkis, *Pandora tells Congress: internet royalties are "unfair and indefensible"*, MUSICWEEK (Nov. 28, 2012), http://www.musicweek.com/news/read/pandora-tells-congress-internet-royalties-are-unfair-and-indefensible/052727.

[9] SENATOR RON WYDEN, THE INTERNET RADIO FAIRNESS ACT OF 2012 1, *available at* http://www.wyden.senate.gov/download/summary-of-internet-radio-fairness-act-of-2012 (last visited Apr. 12, 2013).

C. *The Internet Radio Fairness Act*

1. Overview of the Act

Pandora has addressed the asymmetry of the current sound recording performance licensing structure for Internet, satellite, and terrestrial radio by lobbying for the Internet Radio Fairness Act (IRFA) in Congress.[1] The legislative proposal was introduced to "end discrimination against the Internet and Internet radio in the digital marketplace,"[2] which flows from the difficulty the judges of the CRB face when trying to set rates according to the "willing buyer, willing seller" standard and the alleged lack of judges' expertise of the industry.[3] The Bill, which was introduced under the previous Congress by Senator Wyden and Reps. Chaffetz and Polis,[4] claims to bring the digital licensing structure up to date with today's music market by replacing the "willing buyer, willing seller" standard with the 801(b) standard in rate setting and by requiring that the judges on the CRB have "a minimum level of experience that pertains to their duties."[5] By changing the rate-setting standard, internet radio broadcasters would be likely to face lower royalty rates, as the standard takes into account the maximization of availability of works to the public,[6] rather than trying to simulate free market conditions and factoring in the negative impact on copyright owners' other streams of income.[7] For example, Sirius XM – a satellite radio broadcaster – only

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[1] Randy Lewis, *Internet Radio Fairness Act debate opens in Washington*, L.A. TIMES (Nov. 30, 2012), http://articles.latimes.com/2012/nov/30/entertainment/la-et-ms-internet-radio-fairness-act-pandora-congress-hearings-20121129.

[2] SENATOR RON WYDEN, THE INTERNET RADIO FAIRNESS ACT OF 2012 1, *available at* http://www.wyden.senate.gov/download/summary-of-internet-radio-fairness-act-of-2012 (last visited Apr. 12, 2013) (referring to the fact that Internet radio broadcasters pay higher royalties than terrestrial and satellite radio).

[3] *Id.* at 2.

[4] Jennifer Martinez, *Lawmakers introduce Pandora-backed music royalty legislation*, THE HILL (Sept. 21, 2012, 2:37 PM), http://thehill.com/blogs/hillicon-valley/technology/251037-lawmakers-introduce-pandora-backed-music-royalty-legislation.

[5] *See* WYDEN, *supra* note 2, at 2.

[6] 17 U.S.C § 801(b)(1)(A) (2006 & Supp. 2012).

[7] *Id.* § 114(f)(2)(B)(i).

pays 8% of its revenue in sound recording royalties.[1] The MusicFirst coalition, which SoundExchange is a part of, has said that Pandora's royalty rates could be cut by 85% if the Bill is passed.[2]

2. Criticism of the Act

The Bill has caused a strong reaction in the recording industry.[3] First, artists tend to argue that without the music that they provide for Internet radio broadcasters, there would be no market for Pandora.[4] Interestingly, however, there is also a worry among artists that if they keep resisting lower royalty rates, the big media companies behind the Bill (e.g. ClearChannel, in addition to Pandora) will refuse to play their records.[5] This second point of criticism is in direct controversy with the first one, since, with the latter argument, artists clearly recognize that they in fact need the big players and the Internet radio broadcasting market, just as Internet radio broadcasters need artists to provide content. Also, an extreme argument against the IRFA is that the bill attempts to change the way the judges on the CRB are chosen merely because the current judges refuse to "bow to the money."[6]

Arguably, the most dangerous potential impact of the Bill is the fact that it could reduce the amount of money going to recording artists. The basic principle of copyright law is to promote the progress of useful arts,[7] and reducing royalty rates for sound recordings in the current music market is not, on its face, in accordance with this principle. However, an argument could be made that by further facilitating internet radio broadcasters' businesses by reducing royalty

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[1] Sisario, *supra* note 7, at B1.

[2] *Id.*

[3] *See* Ben Sisario, *supra* note 2.

[4] *See A Musician's Perspective On Pandora*, MUSICFIRST, *available at* http://www.okayplayer.com/news/ceelo-common-nas-lupe-speak-against-pandora.html/attachment/screen-shot-2012-11-15-at-6-12-51-pm (last visited Nov. 2 2013).

[5] Chris Castle, *The Tide Has Risen: Five Reasons to Worry About The Internet Radio Fairness Act*, HUFFINGTON POST (Oct. 30, 2012, 6:49 PM), http://www.huffingtonpost.com/chris-castle/internet-radio-fairness-act_b_2036508.html.

[6] Castle, *supra* note 5.

[7] U.S. CONST. art. I, § 8, cl. 8.

rates, the Bill would in fact promote the progress of arts, because it would support businesses that allow the public to gain access to the arts more efficiently. This efficiency in the structure of music consumption could be seen as "progress of useful arts."[1] Once again, we are facing the problem of balancing between incentivizing creation of new music, and further encouraging the development of modern ways to transmit the music to its listeners.

3. Future of the Act – and an Alternative Solution

The Bill has not been reintroduced under the new Congress, and its future is somewhat unclear. Some commentators say that the Bill was merely "killed by the calendar," as it was introduced rather late in the 112th Congress, and that it has simply "gone into hibernation."[2] Therefore, it can be argued that there is a good likelihood that it will be reintroduced. Due to the vast attention that the Bill received in the media, and the unsettled, controversial licensing structure it tries to even out, it is likely that the debate set by the Bill will continue, be it in the form of reintroduction or further legislative drafting.

An alternative solution has been suggested alongside the IRFA, a solution "praised" by the MusicFirst coalition,[3] but objected to by the broadcasting industry.[4] The Interim Fairness In Radio Starts Today (FIRST) Act is a draft bill introduced by Rep. Nadler in August of 2012.[5] The Interim FIRST Act, in its essence, does the opposite of the IRFA: the main idea of the Bill is to raise royalty rates of satellite and

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[1] *Id.*

[2] Glenn Peoples, *Internet Radio Fairness Act Slips Into Hibernation*, BILLBOARD (Jan. 3, 2013, 3:11 PM), http://www.billboard.com/biz/articles/news/1510514/internet-radio-fairness-act-slips-into-hibernation.

[3] *See MusicFIRST Praises Draft Nadler "Interim FIRST ACT," Insists Performance Rights Must Be Part Of Any Internet Radio Solution,* MUSICFIRST (Aug. 20, 2012), http://musicfirstcoalition.org/?page=news_item&NewsID=3765647611079.

[4] *Another radio performance royalty bill drafted*, RADIO & TELEVISION BUSINESS REPORT, http://rbr.com/another-radio-performance-royalty-bill-drafted/ (last visited Nov. 15, 2013).

[5] *Available at* http://nadler.house.gov/sites/nadler.house.gov/files/documents/NADLER_153_xml.pdf.

cable radio to the same level with internet radio,[1] as well as to increase the fees terrestrial radio stations pay for live-streaming their broadcast online.[2] Nadler's comment of the IRFA and his alternative solution was: "I do not believe establishing such a level playing field means we have to hurt performing artists in the process. Instead, we can create royalty standard parity for all parties and compensate creators fairly."[3]

The Interim FIRST Act does away with the historic asymmetry in the radio sound recording licensing structure by bringing all the broadcasters to the same royalty rate level. The implications of this could, however, change the structure of the whole business. The increases in costs faced by terrestrial radio could only be met by heightened revenue. As terrestrial radio stations are largely funded by advertisements, and there are only so many advertisements consumers will tolerate, some stations could potentially go out of business. This, in turn, could increase the advertisers' willingness to advertise in other media, such as internet radio, and old listeners of terrestrial radio could move towards internet radio services and find it valuable to even subscribe to use Pandora's services. Eventually, the effect of this piece of proposed legislation would be to put an end to the unfounded favoring of terrestrial radio, and let the market adjust naturally to reflect the modern day consumers' preferences. Although the potential benefit of this draft legislation for Pandora is a lot less straightforward, it would enhance its position in the market in the long term. From the viewpoint of the basic copyright principle, too, this option seems preferable: artists would, in fact, see an increase in their royalty revenue, and at the same time, the development of innovative, modern ways to transmit music more efficiently would not be discouraged.

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[1] Louis Goddard, *Pandora backs bill to cut internet royalty rates*, THE VERGE (Sep. 24, 2012, 4:04 AM), http://www.theverge.com/2012/9/24/3381396/pandora-internet-radio-royalty-bill.

[2] Jennifer Martinez, *Nadler circulates draft legislation on music royalties*, THE HILL (Aug. 20, 2012, 2:59 PM), http://thehill.com/blogs/hillicon-valley/technology/244413-nadler-circulates-draft-legislation-on-music-royalties.

[3] *Id.*

D. *Issues in collective licensing*

1. Breaking Down of Collective Licensing

The collective licensing system for the digital performance of musical works has been experiencing changes since 2010.[1] EMI, Universal Music Publishing, and Sony/ATV withdrew their digital performance rights from ASCAP and BMI, and negotiated licenses on their own behalf,[2] while BMG Chrysalis has simply negotiated the option to withhold its digital performance rights.[3] This strategy seemed to work for the publishers; according to Billboard Magazine's sources, Sony/ATV was able to get a 25% increase from Pandora by negotiating for its own licenses.[4] Publishers in general were likely to negotiate more lucrative deals independently, since ASCAP and BMI are subject to an antitrust consent decree (discussed below),[5] which significantly affects their ability to negotiate freely.[6]

Although publishers may not have viewed direct licensing as reasonable before the advantages that Internet and further advanced technology have brought about, it is certainly easier nowadays to keep track of one's licenses, stay in contact with licensees, and ensure that royalties are paid as they should. Furthermore, the costs that publishers face in having to negotiate with multiple service providers on their own behalf may easily be offset by the heightened royalty rates for which they are able to contract. However, for Pandora, this was an undesirable development. As evidenced by Sony/ATV's royalty rate increase,[7] Pandora's royalty rates in general were likely to increase if the trend continued. Furthermore, Pandora has had to spend more time and money in negotiations. In addition to having to

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[1] *See* In re Petition of Pandora Media, Inc., No. 12-CV-08035-DLC, at 5 (S.D.N.Y. Sept. 17, 2013) *available at* http://ia601605.us.archive.org/6/items/gov.uscourts.nysd.403728/gov.uscourts.nysd.403728.70.0.pdf.

[2] Christman, *supra* note 1, at ¶ 1.

[3] *See id.* at ¶ 2.

[4] *Id.* at ¶ 3.

[5] United States v. Am. Soc'y of Composers, Authors & Publishers, No. 41-CV-1395, 2001 U.S. Dist. LEXIS 23707, at *2–3 (S.D.N.Y. June 11, 2001).

[6] *Id.* at *9.

[7] Christman, *supra* note 1 ¶ 3.

negotiate with three PROs, it also had to agree with independent publishers on their royalty rates. The unwillingness of PROs to grant "carve-outs" from their blanket licenses for the licenses that Pandora has to obtain directly from publishers[1] has also lead to Pandora suing one of the PROs. The litigation has so far produced positive results for Pandora with regards to problems it has had with collective licensing.

2. Pandora Sues ASCAP

Pandora has started its battle for lower royalty rates in musical works, too. Pandora has sued ASCAP and claims that it has not negotiated in a manner that would lead to fair and reasonable terms for the licensing deals of musical works.[2] Suing ASCAP is possible because it, together with BMI, is subject to a consent decree.[3] It entered into this decree by settling an antitrust claim,[4] which orders it to negotiate for "reasonable" fees.[5] For instance, if a potential licensee and ASCAP disagree on fees, the potential licensee is able to request the District Court for the Southern District of New York to determine a reasonable fee.[6] ASCAP has the burden of proving the reasonableness of a fee,[7] and if it fails, the court will weigh the evidence to decide on a fee.[8]

Pandora's last license with ASCAP expired about two years ago,[9] and ever since, it has been paying an interim license fee to

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[1] PROs refused to offer Pandora a discount (a "carve-out") for the licenses it had to obtain from individual music publishers, thus making Pandora pay for the same content essentially twice.

[2] Eriq Gardner, *Pandora Demands Lower License Fees In Lawsuit Against ASCAP*, HOLLYWOOD REPORTER, (Nov. 6, 2012), http://www.hollywoodreporter.com/thr-esq/pandora-demands-lower-license-fees-386865.

[3] *Am. Soc'y of Composers, Authors & Publishers*, 2001 U.S. Dist. LEXIS 23707, at *2–3.

[4] *Id.* at *23.

[5] *Id.* at *17.

[6] *Id.* at *3.

[7] *Id*. at *18.

[8] *Id*. at *19.

[9] *See* Andrew Barker, *Pandora Files Suit Against ASCAP*, VARIETY (Nov. 6, 2012, 4:13 PM), http://variety.com/2012/music/news/pandora-files-suit-against-ascap-1118061829/.

ASCAP.[1] The previous license was ASCAP's "standard form Internet license," which Pandora claims was ill suited for its business, but was offered to it as essentially "non-negotiable" when it was just starting up.[2] The license agreement was terminated on December 31, 2010,[3] after which the parties attempted to negotiate for a new licensing deal, but with no results.[4] In its petition, Pandora points to a licensing agreement ASCAP recently entered into with Radio Music Licensing Committee (RMLC),[5] the terms of which are more favorable to RMLC than ASCAP is willing to grant to Pandora.[6] This is relevant because one of the biggest broadcasters in RMLC is ClearChannel. Significantly, ClearChannel operates one of Pandora's competitors, iHeartRadio. Pandora claims that this discrimination is not only "unreasonable and particularly harsh,"[7] but also contrary to the court's decisions that "there is no basis for discriminating amongst licensees offering the same or substantially similar programming."[8] The claims Pandora asserts seem reasonable. A fee structure with a company that offers a service similar to Pandora's should be the best evidence of what is considered to be a "reasonable fee" in the current market. The fact that ASCAP refuses to make the same deal with Pandora seems rather odd and is worthy of concern, since the service enjoying lower fees than Pandora is one of its biggest competitors. The trial for the determination of the proper royalty fee is set for December 4th, 2013.

Furthermore, Pandora's concerns over the increasing number of music publishers withdrawing their rights from ASCAP grew in the course of litigation. On July 1st 2013 it filed a motion for summary judgment, seeking determination that "ASCAP publisher withdrawals. . . do not affect the scope of the ASCAP repertory subject

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[1] *Id.*

[2] Brief for Petitioner ¶ 6, *United States v. Am. Soc'y of Composers, Authors & Publishers*, 2001 U.S. Dist. LEXIS 23707, No. 12 CV 8035, (S.D.N.Y. Nov. 5, 2012), *available at* http://www.scribd.com/doc/112317268/Pandora.

[3] *Id.* at ¶ 7.

[4] *Id.* at ¶ 8.

[5] *Id.* ¶ 9.

[6] *Id.*

[7] *Id.* ¶ 14.

[8] Brief for Petitioner ¶ 16, *Am. Soc'y of Composers, Authors & Publishers,* 2001 U.S. Dist. LEXIS 23707, No. 12 CV 8035.

to license"[1], essentially claiming that ASCAP's refusal to license digital rights (following the publisher's "withdrawal") was in breach of ASCAP's consent decree. The court agreed with Pandora.[2] Judge Cote stated: "Pandora's right to perform the compositions in the ASCAP repertory extends to all of ASCAP's repertory and ASCAP may not narrow that right by denying Pandora the right to play the songs of publishers who have withdrawn new media licensing rights from certain songs while keeping the songs in ASCAP's repertory to be licensed for performance by other music users."[3]

This recent development is significant for Pandora. It appears now that Pandora will no longer have to negotiate with individual music publishers for royalty rates, and it can license them through PROs as it used to. The breaking down of collective licensing seems to have been stopped by this decision.[4]

III. SPOTIFY

A. Spotify's Business Model

Spotify is a Swedish Internet radio broadcaster that entered the U.S. market in mid-2011.[5] Spotify's services, which are all rendered in a single computer program or mobile application, can be divided into three different categories. First, it provides a service called Radio, which is a program very similar to Pandora.[6] A user can choose a genre or type in the name of a song or artist and the program then creates a playlist.[7] Second, it allows the user to search for songs and

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[1] *In re Petition of Pandora Media, Inc.*, No. 12-CV-08035-DLC, at 8 (S.D.N.Y. Sept. 17, 2013) *available at* http://ia601605.us.archive.org/6/items/gov.uscourts.nysd.403728/gov.uscourts.nysd.403728.70.0.pdf.

[2] *Id.* at 30.

[3] *Id.* at 23.

[4] Ed Christman, *Pandora Prevails In ASCAP Rate Court Case*, BILLBOARD (Sep. 18, 2013, 2:49 AM), http://www.billboard.com/biz/articles/news/legal-and-management/5695574/pandora-prevails-in-ascap-rate-court-case.

[5] *Hello America. Spotify here*, SPOTIFY, (July 14, 2011, 11:11 AM), https://www.spotify.com/uk/blog/archives/2011/07/14/hello-america-spotify-here/.

[6] *Radio*, SPOTIFY, https://www.spotify.com/us/ (last visited Apr. 12, 2013).

[7] *Id.*

stream them via the Internet.[1] Again, a user can type in a song, an album, or an artist's name in the "Search" box, find what she was looking for from the search results, click on a song, which she then hears immediately.[2] Songs can be skipped, fast-forwarded, and listened to multiple times.[3] Third, Spotify enables a user to create playlists that consist of user-selected songs, which can be listened to offline.[4] The songs are essentially downloaded onto the user's device. This feature, however, is only available to Premium users.[5]

Spotify's business is based on the "freemium" model, in which users are given access to limited services free of charge.[6] However, to listen to songs without advertisement interruption, use Spotify on mobile devices, or listen to music offline, the user must upgrade to either the "Unlimited" service or the "Premium" service.[7] Unlike Pandora, the main source of revenue for Spotify is subscriptions; in 2011, 83% of its revenue consisted of monthly payments from its Unlimited and Premium users.[8] In addition to luring users to subscribe by making use of the "freemium" structure, Spotify's users can be argued to be less likely to move away from Spotify once they have created several playlists they can repeat, "starred" their favorite songs, and established a social media connection through Spotify.

Due to the variety of the services it provides, Spotify pays royalties to several different entities, including PROs, SoundExchange, the Harry Fox Agency (HFA), individual labels, and other copyright holders from whom it has to secure certain licenses in order to stream

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[1] *Search and discover*, SPOTIFY, https://www.spotify.com/us/ (last visited Apr 12, 2013).

[2] *Id.*

[3] SPOTIFY WEB PLAYER, https://play.spotify.com (last visited Nov. 2, 2013).

[4] *Listen everywhere*, SPOTIFY, https://www.spotify.com/us/ (last visited Apr. 12, 2013).

[5] *Id.*

[6] SPOTIFY WEB PLAYER, https://play.spotify.com (last visited Nov. 2, 2013).

[7] *Radio*, SPOTIFY, https://www.spotify.com/us/ (last visited Apr. 12, 2013).

[8] Sisario, *supra* note 7, ¶ 6.

music on demand. In 2011, royalty payments comprised approximately 70% of its revenue.[1]

Figure 3 summarizes Spotify's business model.

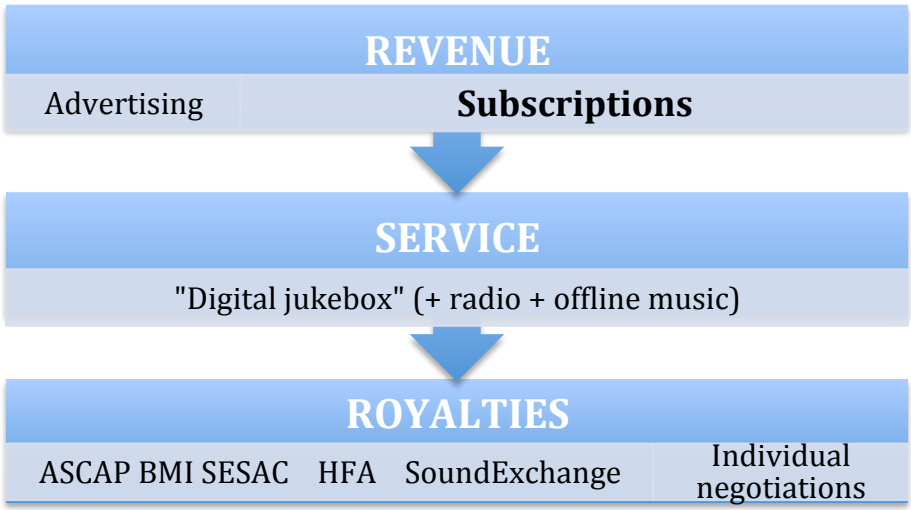

Fig.3

Like Pandora, Spotify seems to be struggling financially. In 2010, its losses amounted to $37.5 million, and in 2011—after entering the U.S. market and seeing an increase of $244 million in revenue—the number was $59 million.[2] However, the CEO of Spotify, Daniel Ek, claimed recently that losses are merely due to the fact that the company is investing in growing; without those investments, they would be profitable.[3] Whether or not this is true, the

[1] Glenn Peoples, *Business Matters: Accounting Explains How Spotify's Business Model Can Succeed*, BILLBOARD (Oct. 5, 2012, 6:15 PM), http://www.billboard.com/biz/articles/news/1083499/business-matters-accounting-explains-how-spotifys-business-model-can.

[2] Greg Sandoval, *Is Spotify's business model broken?*, CNET (Oct. 5, 2012, 6:37 AM), http://news.cnet.com/8301-1023_3-57526690-93/is-spotifys-business-model-broken/.

[3] Peter Kafka, *Spotify's Daniel Ek on Profits, Label Deals And Angry Musicians: "We're Doing, Really, Really Well"*, ALL THINGS DIGITAL (Dec. 6, 2012, 12:56 PM), http://allthingsd.com/20121206/spotifys-daniel-ek-on-profits-label-deals-and-angry-musicians-were-doing-really-really-well/.

company still plans on negotiating for lower royalty rates in its current licensing negotiations with the industry's "big three" record labels.[1]

B. Spotify's Licensing Scheme

1. Spotify as an Interactive Service

The key difference between Spotify and Pandora is that Spotify is a so-called "interactive service,"[2] which explains the differences between the two services' licensing requirements. The definition comes from § 114(j)(7) of the Copyright Act: an interactive service "enables a member of the public to receive a transmission of a *program specially created* for the recipient, or on request, a *transmission of a particular sound recording*, whether or not as part of a program, which is *selected by or on behalf of the recipient*."[3] Generally, non-interactive services, such as Pandora, tend to mimic traditional radio broadcasts.[4] Spotify, on the other hand, gives a significant amount of control to its users in choosing which songs to play. Its streaming services could be described as a "digital jukebox", and in effect, the classification of those services is indisputably interactive.

The Second Circuit visited the definition of "interactive" in *Arista Records, LLC v. LAUNCH Media, Inc.*,[5] where the service—a Pandora-like playlist-based online radio—was held to be non-interactive.[6] The plaintiffs, who consisted of several record labels, alleged that the playlists the defendant created for its users were "specially created programs," because they were created specifically for the user the moment she inserted a genre or an artist name.[7] The

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[1] Greg Sandoval, *Spotify pushing labels to lower costs, open up free services to phones,* THE VERGE (Feb 19, 2013, 5:45 PM), http://www.theverge.com/2013/2/19/4006194/spotify-negotiate-cheaper-music-licenses-create-free-mobile-trials.

[2] 17 U.S.C. § 114(j)(7) (2006).

[3] *Id.* (emphasis added).

[4] This is because in order to qualify as a non-interactive service, the broadcaster cannot give its user full control over which songs they can listen to. *See* 17 U.S.C. §§ 114(d)(2), (j)(13).

[5] Arista Records, LLC v. LAUNCH Media, Inc. 578 F.3d 148 (2d Cir. 2009).

[6] *Id.* at 164.

[7] *Id.* at 152.

court disagreed, and refused to read the definition so broadly to include, generally, all services that create playlists based on a specific user's input.[1] The court also looked into the way the playlists were generated,[2] and noted that "it is hard to think of a more complicated way to 'select songs'" than the defendant's random generation of playlists.[3] Moreover, legislative history lay at the heart of this case; the court read the definition in a limited way given the limited rights the legislative branch granted copyright holders in sound recordings.[4] They noted that the House of Representatives wished to strike a balance between protecting sound recording copyright to promote sales and the creation of new music, and the development of new media and forms of distribution that are "economically feasible."[5]

Considering the definition of "interactive" and its interpretation in *Arista*, it seems clear that Spotify is an interactive service due to the extensive control it gives to its users. The effects of this categorization on Spotify's licensing requirements follow.

2. Licensing as an Interactive Service

The various ways Spotify allows its users to play music complicates its licensing scheme. Under this analysis, Spotify's services can be divided into two categories: (1) non-interactive streaming through the Radio program; and (2) interactive streaming together with offline listening.

As mentioned above, Spotify's Radio program operates in a manner similar to Pandora, and so the royalties it pays are the same as Pandora pays. Spotify's Radio "performs" the song publicly through a digital audio transmission as a non-interactive service, and hence it must pay royalties to the copyright owners of the musical work (through PROs), [6] and of the sound recording (through

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[1] *Id.*

[2] *Id.* at 162.

[3] *Id.* at 160.

[4] *Arista*, 578 F.3d at 164.

[5] *Id.* at 154.

[6] SPOTIFY, *How do I get paid from Spotify?* https://www.spotify.com/us/about-us/artists/get-paid-from-spotify/ (last visited Nov, 2 2013).

SoundExchange).[1] Although Spotify has had to undergo individual negotiations with the copyright owners of the same works (for reasons explained below), it has chosen this statutory licensing scheme to license the sound recordings played on Radio instead of making a "package deal" in its individual negotiations for both interactive streaming and Radio streaming.[2] This is probably because Spotify is able to pay lower royalties to the owners of sound recording—by paying statutory rates to SoundExchange—than what is provided in its individually negotiated contracts. Current legislation also fully supports the dualism of Spotify's licensing scheme: it expressly states that an interactive service, such as Spotify, may use the statutory licensing scheme for its non-interactive parts despite the fact that the service has separate, interactive features.[3] The blanket licenses Spotify has obtained from PROs for the performance of the underlying musical works, on the other hand, cover both interactive and non-interactive streaming.[4]

For its offline and interactive streaming services, Spotify has to consider not only performance rights, but also copyright holders' exclusive distribution and reproduction rights, as provided for in §§ 106(1) and (3) of the Copyright Act, respectively.[5] We now turn to look at these three rights in connection with the underlying musical works and sound recordings to which they attach.

First, Spotify has to obtain licenses to perform both the musical work and the sound recording.[6] Like Pandora, it generally obtains blanket licenses from PROs for the performance of the musical works.[7] However, unlike Pandora, Spotify is not entitled to statutory licensing under § 114 of the Copyright Act, since it is an interactive

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[1] Glenn Peoples, *Spotify Now Paying SoundExchange for mobile Radio Streams in U.S., lowers royalty bill,* BILLBOARD (Sep. 24, 2012, 12:34 PM), http://www.billboard.com/biz/articles/news/1083668/spotify-now-paying-soundexchange-for-mobile-radio-streams-in-us-lowers.

[2] *See id.*

[3] 17 U.S.C. § 114(j)(7) (2006).

[4] *See ASCAP Announces U.S. Licensing Agreement With Spotify*, ASCAP, (July 14, 2011), http://www.ascap.com/press/2011/0714_licensingagreement-spotify.aspx.

[5] 17 U.S.C. §§ 106(1)-106(3) (2006).

[6] 17 U.S.C. §§ 106(4), 114(d)(3)(C) (2006).

[7] *See, e.g.*, *ASCAP Announces U.S. Licensing Agreement With Spotify*, ASCAP, (Jul. 14 2011), http://www.ascap.com/press/2011/0714_licensingagreement-spotify.aspx.

service.[1] Section 114(d)(3)(C) of the Copyright Act provides that an interactive service must obtain the copyright from a sound recording performance rights society or from the copyright holder.[2] Spotify negotiates with individual record labels to obtain these licenses.[3]

Second, in order to lawfully and interactively stream songs, Spotify has to acquire mechanical licenses for musical works.[4] This is proscribed under § 115 of the Copyright Act, which establishes a compulsory licensing scheme for copying and distributing phonorecords to which the musical works are fixed.[5] The scheme applies to any musical work that has already been distributed to the public in the U.S., and makes it mandatory for the copyright owner to provide a mechanical license if someone else wishes to copy or distribute the work.[6] Judges on the CRB determine the royalty rates,[7] which differ depending on whether the song is downloaded permanently, temporarily, or merely streamed via an interactive service.[8] The licenses are often obtained not from the copyright holders themselves, but from mechanical licensing agencies, such as the Harry Fox Agency (HFA),[9] which currently grants the largest percentage of mechanical licenses in the U.S.[10] Such agencies also collect royalties and distribute them to copyright holders.[11] The

[1] 17 U.S.C. § 114(d)(2)(A)(i) (2006).

[2] *Id.* § 114(d)(3)(C).

[3] *See* Mark Milian, *Will Spotify have gaps in its U.S. 'digital jukebox?'*, CNN (Dec. 13, 2010), http://www.cnn.com/2010/TECH/web/12/10/spotify.us.launch/index.html.

[4] 17 U.S.C. § 115 (2006).

[5] *Id.*

[6] *Id.* at § 115(a)(1).

[7] *See id*. § 115(c)(3)(C).

[8] *Statutory Royalty Rates,* HARRY FOX AGENCY, http://www.harryfox.com/public/StatutoryReports.jsp (last visited Apr. 12, 2013).

[9] HARRY FOX AGENCY, http://www.harryfox.com (last visited Apr. 12, 2013).

[10] *About HFA*, HARRY FOX AGENCY, http://www.harryfox.com/public/AboutHFA.jsp (last visited Apr. 12, 2013).

[11] *Royalty Collection & Distribution*, HARRY FOX AGENCY, http://www.harryfox.com/public/CollectionDistributionPublisher.jsp (last visited Apr. 12, 2013).

royalty rates for mechanical licenses are set by the CRB, under the Copyright Act's 801(b) standard.[1]

Owners of copyright in sound recordings also have the exclusive right to distribute and copy their works.[2] Therefore, Spotify has to negotiate with copyright owners for these licenses, too. In practice, these negotiations are likely to occur with the negotiations for performance licenses, and there is likely to be a single contract for the payment of royalties for performance, copying, and distribution. Since the details of these licensing deals are kept secret, it is not known what type of royalties Spotify pays to copyright holders of sound recordings.[3] The royalty rates are likely to vary from one record label to another, but according to a Swedish newspaper's "sources," the general model is as follows: Spotify pays a lump sum when the contract is formed, after which it has access to the recordings of the label, and thereafter it pays per recording played, online or offline.[4] This type of royalty structure could mean that profitable years for Spotify may in fact lie in the future, despite its current trend of incurring higher costs at the beginning of its contract periods.

Some music publishers have also begun to negotiate directly with Spotify for both mechanical licenses and performance licenses.[5] So, instead of having to secure these licenses from two different sources (such as ASCAP and Harry Fox Agency), Spotify is able to make one deal for the use of musical works with one entity, making a future negotiation process for an individual deal smoother, shorter, and less costly. However, if this trend continues, Spotify is likely to end up being worse off, since having to obtain licenses from ASCAP and HFA only would force it to go to several different publishers to negotiate for mechanical and performance licenses.

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[1] 17 U.S.C. § 115(c)(3)(D) (2006).

[2] *Id.* § 114(b).

[3] Tim Ingham, *Nigel Godrich: major labels did "secret deals with Spotify", leaving small labels with "pittance"*, MUSICWEEK (Jul. 15, 2103, 7:46 PM), http://www.musicweek.com/news/read/nigel-godrich-major-labels-did-secret-deals-with-spotify-giving-small-labels-pittance/055395.

[4] Stefan Lundell, *Daniel Ek: Därför Ökar Spotifys Förluster*, DAGENS INDUSTRI (Apr. 13, 2012), http://www.di.se/artiklar/2012/4/12/daniel-ek-darfor-okar-spotifys-forluster/?print=.

[5] Don Jeffrey, *Pandora Media Taken to Court by Songwriter Rights Group Over Rates*, BLOOMBERGBUSINESSWEEK (Jun. 13, 2013, 3:03 PM), http://www.bloomberg.com/news/2013-06-13/pandora-taken-to-court-by-songwriter-rights-group-over-rates.html.

Figure 4 demonstrates Spotify's licensing scheme for offline music and streaming. See Figure 2 for the Radio program.

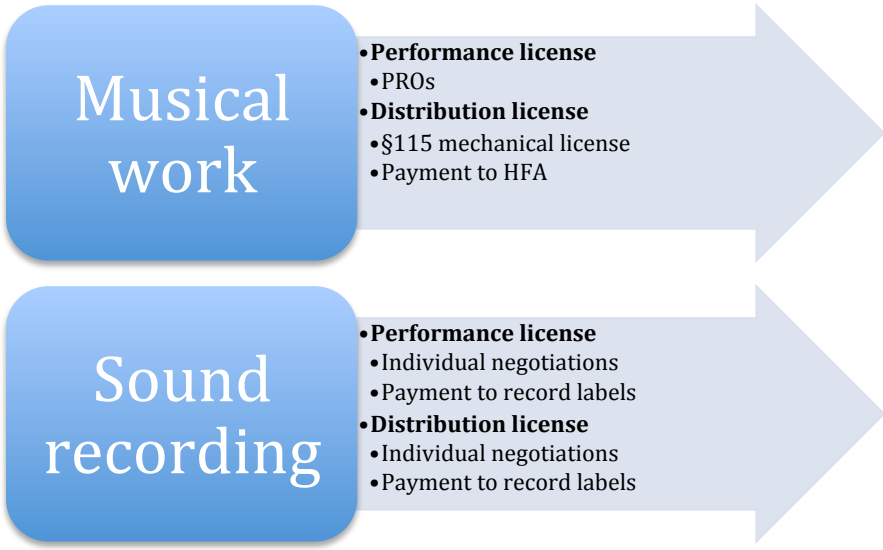

Fig. 4

C. Spotify's Business Model and Licensing Scheme – An Evaluation

The extensive period of time it took Spotify to enter the U.S. market[1] evidences the complexity of its licensing structure. Spotify wishes to include "all the music in the world" in its service,[2] and achieving this—or anything close to it—will be extremely burdensome. First of all, all sound recording copyright holders would have to be reached and negotiated with individually, and second, the collective licensing structure for musical works is showing signs of collapse.[3]

Spotify will not enjoy any of the benefits of any passing of legislation to lower royalty rates under § 114. Also, its royalty

[1] *Spotify Launches in the U.S, Finally*, GLOBAL TRADER, http://www.gtglobaltrader.com/news/spotify-launches-us-finally (last visited Apr. 12, 2013).

[2] *Labels*, SPOTIFY, https://www.spotify.com/us/ (last visited Apr. 12, 2013).

[3] *See* Christman, *supra* 7.

payments are a lot less controversial than Pandora's,[1] and thus any legislative changes to them are unlikely to occur in the near future. Arguably, then, Spotify's hope lies in adjusting its business model to better benefit from the current legal framework. Its "freemium" business model has pushed over 20% of its users to purchase a monthly subscription,[2] and restructuring the model could further increase this percentage. For example, Spotify could further limit the free services it provides, thus encouraging more users to pay for a subscription. The market of services like Spotify—that enable the mass consumption of music without having to pay for a single download, and yet lets users choose the specific songs they wish to hear—is somewhat limited at the moment.[3] Also, there are not many services with which consumers could directly substitute Spotify, so it should consider further experimenting with its "freemium" model in order to generate more revenue from subscriptions.

IV. CONCLUSION

Internet radio broadcasters are a socially valuable development in the music market. They constitute a new type of business model that does not require a consumer to pay for every single track they wish to hear, therefore making listening to large quantities of music simpler. This is a welcomed alternative for pay-per-song services, which discourage discovering, trying out, and listening to new music prior to purchasing it. Paying a price per each song downloaded may seem burdensome and even risky as a purchase to some consumers. Being able to listen to, for example, any of Spotify's 20 million songs[4] by paying a monthly fee gives users the freedom to listen to as much music as they like. Internet radio broadcasters enable the public to try out and discover new music at a lower cost, and in the long run, this is

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[1] As evidenced by the comparatively low media attention and uproar related to Spotify's royalty payments. Contrast with Pandora, as discussed above.

[2] *Information*, SPOTIFY, http://press.spotify.com/uk/information/ (last visited Apr. 12, 2013).

[3] The market for interactive radio broadcasters is growing, but Spotify appears to be the most developed service at the moment. For comparison, *see* Stuart Houghton, *If you love music, should you use Spotify?*, TRUSTED REVIEWS (JUL 25 2013), http://www.trustedreviews.com/news/if-you-love-music-should-you-use-spotify.

[4] *Information*, SPOTIFY, http://press.spotify.com/uk/information/ (last visited Sept. 24, 2013).

likely to increase not only the amount of music listened to, but also the social benefit gained from doing so. The amount of royalty revenue that copyright holders receive would also likely increase, which in turn incentivizes the creation of new music. It is unfortunate that the current legal framework makes the running of Pandora and Spotify costly, but, understandably, the striking of a balance between incentivizing creation in the music industry and enabling new media to develop further is difficult, as was recognized already in the passing of the DPSR.[1]

Current legal issues in the field of Internet radio broadcasting represent this policy tension. In considering the two different standards by which royalty rates for the performance of sound recordings in non-interactive media are determined, one sees a manifestation of two interpretations of the policy tension. The "willing buyer, willing seller" standard leads to rates based on the effect of the license to the "copyright owner's other streams of revenue."[2] Although artists' revenue streams are important in terms of incentivizing creation, this factor, which does not take public interest into consideration, seems to be based on an equity argument and therefore is not quite in line with the basic principle of copyright law. The purpose of copyright law is not to protect the rights of creators, but rather to promote the progress of arts in general, which may be achieved by granting creators certain rights.[3] Therefore, the 801(b) standard seems to interpret the purpose of the law better because it is concerned with the public's interests, such as its access to copyrighted material. It also incentivizes artists. However, lowering Internet radio broadcasters' standard to 801(b) would significantly cut the artists' royalty revenue, which in turn could decrease incentives to create new music and the public would be worse off. In order to guarantee secured income for artists and the continuation of the creation of music, the proposals of the Interim FIRST Act as discussed in Section 2(B)(iii)(c) do seem preferable. Perhaps, then, the "willing buyer, willing seller" standard—although not socially advantageous on its face—is able to produce socially preferable solutions, if applied across the board.

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[1] *Arista*, 578 F.3d at 154.

[2] 17 U.S.C. § 114(f)(2)(B)(i) (2006).

[3] U.S. CONST. art. I, § 8, cl. 8.

The breaking down of collective licensing is a trend that has affected both Pandora and Spotify. Consent decrees regulate ASCAP and BMI's vast powers in the industry, so licensing negotiations with the two are likely to produce steady results. However, in order to obtain reasonable royalty rates, a lawsuit may be necessary. Nevertheless, the recent motion for summary judgment granted to Pandora, declaring the withdrawal of music publishers' digital rights from ASCAP contrary to its consent decree, provides some security for internet radio broadcasters. Although the relationship Internet radio broadcasters have with PROs is of a dependent nature, it is regulated, and following the summary judgment, broadcasters are better off in multiple ways: (1) they enjoy the benefits of obtaining licenses from just three single sources; (2) their royalty rates are lower; and (3) they do not have to concern themselves with the plausibility of "carve-out" deals.[1]

It seems that legal solutions, such as lobbying in Congress for the passing of the IRFA, and filing suit against ASCAP, although ongoing, have been exhausted for now. Thus, Pandora and Spotify may have to focus on re-working their business models. Further developing the benefits users receive by paying for subscriptions should be considered. Pandora could attempt to learn from Spotify's "freemium" model and establish constraints on its free services. However, it is possible that users of a service like Pandora are less inclined to pay for its use, as the service is closely similar to traditional radio, to which consumers are used to listening for free.

However, the flow of revenue to the industry has to be secured from somewhere, and by encouraging "races to the bottom" such as the IRFA, the "progress of useful arts" is put at risk. In order to offset the licensing costs that Internet radio broadcasters face within the current legal framework, paid subscriptions may constitute a good long-term solution. Advertising is a valuable source of revenue, too, but it can only be used to a limited extent without compromising the value of the services delivered to consumers. Due to the history of illegal music downloading in the Digital Age,[2] however, consumers' willingness to pay for the kinds of services Spotify and Pandora provide may still be somewhat low. Perhaps stronger enforcement of

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[1] *See* Christman, *supra* note 1.

[2] *See*, *e.g.*, *Frequently Asked Questions* at *Q: What is the Scope of the Problem?*, RIAA, http://www.riaa.com/faq.php (last visited Nov. 3 2013).

copyright laws within the context of illegal downloads would also help Internet radio broadcasters attract more paying subscribers.

IP AND THE LENS OF COMPLEXITY

MICHAL SHUR-OFRY*

ABSTRACT

This article examines the intersection of intellectual property and complexity theory. Complexity focuses on systems comprised of a large number of interacting components. It explores the rules governing their behavior and development, and is currently used to analyze and explain a range of human, social, economic, and natural phenomena. Its interdisciplinary insights apply to a host of systems and networks: from biological and ecological systems, through the social system, to the Internet and other communication networks.

Intellectual property is a natural candidate for applying complexity analysis. Its subject matters interact to create networks that abide by the rules governing complex systems. Cultural works protected by copyright, trademark protected brands, as well as patent protected technologies are all linked through members of society, in a manner which forms two-sided networks susceptible to complexity analysis. Among others, these networks obey the laws of innovation diffusion, social influence, and herd behavior. Moreover, the paradigms of "incentive" and "reward" that lie at the heart of traditional IP theory are directed towards the social system, itself a non-linear, complex system.

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Concentrating on complexity as a social phenomenon, this article demonstrates how specific notions of complexity can illuminate particular norms and dilemmas in the various branches of intellectual property: from patent's non-obviousness requirement, through trademark dilution doctrine, to the puzzle of copyright and television formats. The article further argues that complexity does not merely provide new tools for solving old problems, but offers a new prism for framing such problems, and can also shed new light on the traditional meta-narratives of IP. It concludes that a complexity perspective can enrich IP discourse with a non-reductionist theoretical outlook and may bring intellectual property theory and doctrine closer to real-world settings.

TABLE OF CONTENTS

I. INTRODUCTION

This article explores intellectual property through the lens of complexity theory. Hailed by Stephen Hawking as the science of the

21st century,[1] complexity focuses on systems comprised of a large number of interacting components.[2] It explores the rules governing their behavior and development, and is currently utilized to analyze and explain a range of human, social, economic, and natural phenomena.[3] Complexity theory's interdisciplinary insights apply to a host of systems and networks: from biological and ecological systems, through the social system, financial systems, to the Internet and other communication networks. [4]

Until recently, different complex systems were explored by separate scientific disciplines and largely divided between the hard and social sciences.[5] However, research from recent years led to an increasing understanding that certain attributes are commonly shared by complex systems–be they social, natural, or human-created systems.[6] One prominent example is *self-organization*: complex systems of various types have the ability to self-organize, and produce collective patterns and behaviors, despite the absence of a central design.[7] Thus, for instance, societies comprised of millions of people produce social norms and crown cultural icons;[8] the web self organizes

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[1] Glennda Chui, *"Unified Theory" is Getting Closer Hawking Predicts*, SAN JOSE MERCURY NEWS, Jan. 23, 2000, at 29A.

[2] MELANIE MITCHELL, COMPLEXITY: A GUIDED TOUR, 13 (2009); GIACS – GENERAL INTEGRATION OF THE APPLICATION OF COMPLEXITY IN SCIENCE, A SCIENCE OF THIRTY: COMPLEXITY, A SIGN OF MORE IN NOT MENTIONED 9–11 (Sorin Solomon, et al. eds. n.d.) [hereafter: COMPLEXITY – GIACS] (proposing definitions for "complexity").

[3] *See, e.g.*, MITCHELL, *supra* note 2, at 4–14; Sorin Solomon & Eran Shir, *Complexity: A Science at 30*, 34 (2) EUROPHYSICS NEWS, 36 (2003).

[4] COMPLEXITY – GIACS, *supra* note 2, at 7; *see also* SCOTT CAMAZINE, ET AL., SELF ORGANIZATION IN BIOLOGICAL SYSTEMS (2001); JUVAL PORTUGALI, SELF ORGANIZATION AND THE CITY (1999); R. KEITH SAWYER, SOCIETIES AS COMPLEX SYSTEMS (2005); Antonios Garas, et al., *Worldwide Spreading of Economic Crisis*, NEW J. PHYS. 113043 (2010).

[5] MITCHELL, *supra* note 2, at 230.

[6] *Id.;* DUNCAN WATTS, SIX DEGREES: THE SCIENCE OF A CONNECTED AGE 65, 100 (1st ed. 2003); Albert-László Barabási, *Scale-Free Networks: A Decade and Beyond*, 325 SCIENCE 412 (2009); Complexity – GIACS, *supra* note 2, at 4.

[7] MITCHELL, *supra* note 2, at 13; WATTS, *supra* note 6, at 51.

[8] *See, e.g.*, DUNCAN J. WATTS, EVERYTHING IS OBVIOUS: ONCE YOU KNOW THE ANSWER, 61-62 (2011) [hereinafter "WATTS: OBVIOUS"].

around a small number of super-dominant websites;[9] financial markets comprised of numerous agents, firms, and individuals portray market "sentiments;"[10] and groups of animals "flock" together.[11] In all of these cases, the interactions among the system's multiple components yield collective behavior at the system level that cannot be practically understood by examining the separate properties of each component. In other words, complex systems act as a whole that is different than the sum of its parts.[12]

The recent understanding of the common properties shared by different complex systems has led to an emerging new theory of complexity that synthesizes insights from numerous disciplines, both in the hard and social sciences.[13] The need to facilitate this interdisciplinary discourse is further leading to the emergence of a new, unified, research terminology.[14] One principal tool in this context uses representations of complex systems as networks.[15] Under the network approach, the individual components comprising the system are termed nodes, while the interactions among them are described as links or edges.[16] The specific nature of the nodes and links depends, of course, on the particular system that is being analyzed. In a social system the nodes would be people that are linked through social links; the nodes of the world-wide-web are web pages that are linked through hyperlinks; while, in the network of scientific

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[9] ALBERT-LÁSZLÓ BARABÁSI, LINKED: THE NEW SCIENCE OF NETWORKS, 165 (2002) [hereinafter "BARABÁSI: LINKED"].

[10] *Id.* at 65.

[11] CAMAZINE, ET AL., *supra* note 4, at 167, 186.

[12] *See, e.g.,* P.W. Anderson, *More Is Different*, 177 SCIENCE 393 (1972); John Urry, *The Complexity Turn*, 22 THEORY, CULTURE AND SOC'Y 3, 3–5 (2005) (discussing the irreducibility of complex systems to their individual components); WATTS: OBVIOUS, *supra* note 8, at 61–64 (making similar observations).

[13] Solomon & Shir, *supra* note 3; R. KEITH SAWYER, SOCIETIES AS COMPLEX SYSTEMS (2005); MITCHELL, *supra* note 2, at 234; COMPLEXITY – GIACS, *supra* note 2, at 29; WATTS: OBVIOUS, *supra* note 8, at x, 62-64.

[14] MITCHELL, *supra* note 2, at 234; COMPLEXITY – GIACS, *supra* note 2*,* at 7.

[15] The origin of the network approach is in mathematical graph theory. S*ee, e.g*., BARABÁSI: LINKED, *supra* note 9, at 9–24; Barabási, *supra* note 6, at 413; WATTS, *supra* note 6, at 41.

[16] *See, e.g.*, BARABÁSI: LINKED, *supra* note 9, 11, 57–60; Carter T. Butts, *Revisiting the Foundations of Network Analysis,* 325 SCIENCE 414 (2009); Solomon & Shir, *supra* note 3.

publications, the nodes are the different articles and the links can be the citations of preceding articles by newer ones.[17] Together with the development of the network approach, the recent decade is also witnessing a growing theoretical recognition of complexity as a social phenomenon,[18] and complexity notions – such as *non-linearity*, *complexity reduction*, or *diffusion of innovation* – increasingly affect discourse in the social sciences.[19]

Intellectual property is a natural candidate for applying complexity analysis. Its subject matters interact to create networks that abide by the rules governing complex systems. Patents are the most obvious example, as they are linked through citations of previous patents (as prior art), to create a complex system. Several recent works use the analysis of the patent citation network to explore the impact, the shortcomings, and the development of the US patent system.[20] But additional IP protected subject matters, too, form part of complex systems. Copyright protected works, for example, are linked through members of the social system who choose the cultural works

[17] For analyses of different complex systems as networks, *see, e.g.,* BARABÁSI: LINKED, *supra* note 9, at 57–60, 69 (analyzing the world-wide-web, the Hollywood actors network, and publications networks); WATTS, *supra* note 6, at 69–92 (providing a network analysis of socio-metric systems); Thomas Smith, *The Web of Law*, 44 SAN DIEGO L. REV., 309 (2007) (analyzing article citations network).

[18] *See* Helga Nowotny, *The Increase of Complexity and Its Reduction: Emergent Interfaces Between the Natural Sciences, Humanities and Social Sciences*, 22(5) THEORY, CULTURE & SOC'Y 15, 29 (2005) (observing that complexity is now perceived as a social phenomenon).

[19] Stephen Borgatti, et al., *Network Analysis in the Social Sciences,* 323 SCIENCE 892 (2009) (reviewing the increasing use of network analysis and network concepts in the social sciences); Urry, *supra* note 12, at 3–5 (discussing complexity's central themes and their influence in the social sciences). For a detailed discussion of the concepts of non-linearity, complexity reduction, and innovation diffusion, *see* Parts II-IV, *infra.*

[20] *See, e.g.* Gabor Csardi, et al., *Patent Citation Networks Revisited: Signs of a Twenty-First Century Change?*, 87 N.C. L. REV. 1657 (2009) (analyzing the patent citation network to evaluate patent thresholds in the US patent system); Jean O. Lanjouw & Mark Schankerman, *Characteristics of Patent Litigation: A Window on Competition,* 32 RAND J. ECON. 129 (2001) (demonstrating, *inter alia,* a positive link between patent citation rates and litigation prospects); Katherine J. Strandburg, et al., *Law and the Science of Networks: An Overview and an Application to the "Patent Explosion"*, 21 BERKELEY TECH. L.J. 1293 (2006).

they wish to read, watch, or listen to.[21] Put in a more general manner, IP protected subject matter–from cultural works, through trademark protected brands, to patent protected technologies–are linked through members of society, in a manner that forms two-sided networks susceptible to complexity analysis.[22] Moreover, the paradigms of "incentive" and "reward" that lie at the heart of traditional IP theory are directed at the social system, itself a non-linear complex system.[23]

The recent decade has witnessed an increase in legal scholarship that applies insights from complexity research in the analysis of certain topics in intellectual property and related areas. Prominent examples use themes and insights from complexity and network theory to analyze the regulation of telecommunication networks;[24] to review information technology and Internet policy;[25] and to evaluate patent thresholds through analyzing the patent citation network.[26] Yet, the more general effect of complexity on IP theory and doctrine is still very much unexplored. This work makes a broader claim. Focusing on complexity as a *social* phenomenon, it demonstrates complexity's general applicability to the different areas of intellectual property. Using case studies, which have not yet been analyzed through the lens of complexity, it maps and illustrates the different influences of complexity on norms and theory in this field. It further shows that complexity does not merely provide new tools for

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[21] Michal Shur-Ofry, *Copyright, Complexity and Cultural Diversity: A Skeptic's View*, *in* TRANSNATIONAL CULTURE IN THE INTERNET AGE, 203 (Adam Candeub & Sean Pager, eds., 2012)**.**

[22] The term "two sided network" describes a system in which nodes from a certain kind (in our case: IP protected objects) are linked not directly but through nodes from a different kind (in our case: members of the social system). *See* WATTS, *supra* note 6, at 45, 94–95.

[23] For the concept of non-linearity, *see* the discussion in Part IV, *infra*.

[24] DANIEL F. SPULBER & CHRISTOPHER S. YOO, NETWORKS IN TELECOMMUNICATION: ECONOMICS AND LAW (1st ed. 2009); Daniel F. Spulber & Christopher S. Yoo, *On the Regulation of Networks as Complex Systems: A Graph Theory Approach*, 99 Nw. U. L. Rev. 1687 (2005).

[25] YOCHAI BENKLER, THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM (2006) (using insights from network science to analyze communication and information technology policy in the internet age).

[26] *See, e.g.*, Strandburg, et al., *supra* note 20 (using complex-networks insights to analyze "patent explosion" while making a more general argument for the use of network science in legal analysis).

solving old problems in the field of intellectual property, but also offers a new prism for framing problems and questions in this area.

The article begins by demonstrating how complexity analysis and specific notions of complexity can influence the *design* of particular doctrines in various branches of intellectual property, from the protection afforded to well known trademarks, to the non-obviousness requirement in patent law. It then goes on to illustrate that certain notions of complexity are *already embedded* in current intellectual property doctrine. Identifying these notions has an explanatory power and can solve some old intellectual property conundrums, such as the puzzle of copyright and television formats. It continues to argue that complexity's insights can shed new light on the traditional meta-narratives of intellectual property. In particular, it can influence the incentive paradigm that lies at the heart of the economic analysis of this field.

A few clarifications and caveats before beginning our tour in the realm of IP and complexity. First, viewing IP through the lens of complexity does not dictate a single normative stance towards this area of law. In particular, it does not entail a uniform approach–whether "minimalist" or "maximalist"–with regard to the desired scope of intellectual property protection.[27] As shall be illustrated throughout this paper, a complexity perspective can cast doubt on the justifications for certain IP norms, while providing other IP doctrines with a new and enhanced theoretical support.

Secondly, this article is not an empirical work and does not aim to independently map out the topologies of any of the complex systems it discusses. Rather, it utilizes the current understanding of complexity as a social phenomenon, and relies on existing research to demonstrate how its notions apply to the complex social and economic systems with which IP is entangled.

Lastly, I do not purport to explore all possible influences of complexity analysis on IP theory and IP norms in this article. My aim is less exhaustive, yet more general. Through the introduction of several case studies, which involve different notions of complexity and

[27] On the maximalist-minimalist divide in intellectual property scholarship, *see, e.g.*, Barton Beebe, *Search and Persuasion in Trademark Law*, 103 MICH. L. REV. 2020, 2051–52 (2006) (criticizing this divide in Trademark Law); Alan Delvin, *Systemic Bias in Patent Law*, 61 DEPAUL L. REV. 57 (2012) (making similar observations with respect to patents); Abraham Drassinower, *A Note On Incentives, Rights, And The Public Domain In Copyright Law*, 86 NOTRE DAME L. REV. 1869 (2011) (observing this divide in Copyright Law).

different types of influences on intellectual property law, I aim to demonstrate that viewing IP through the lens of complexity can provide us with a new conceptual toolkit. One that can deepen our understanding of intellectual property, enrich the theoretical discourse in this field, and also bring IP doctrine closer to real-world settings.

The discussion, then, proceeds as follows: *Part II* illustrates possible implications of complexity on the design of IP norms through the case study of "the protection of the famous and successful." It reviews the expanded protection afforded to particularly successful subject matter in different fields of intellectual property and critically analyzes it, relying on complexity research concerning *popularity* and *diffusion of innovation*. *Part III* illustrates the explanatory power of complexity. It introduces the notion of *complexity reduction*, and illustrates how this principle is already embedded in various IP doctrines in the areas of trademark and copyright. It further contends that the concept of complexity reduction can provide certain IP norms with novel justifications that may be more solid than the traditional justifications prevailing in current scholarship. *Part IV* explores the more conceptual influence of complexity on IP theory. In particular, it focuses on the concept of *non-linearity* and its impact on the incentive paradigm and on reforms in the field of IP. A summary and conclusions follow.

II. COMPLEXITY AND IP NORMS: PROTECTION OF THE FAMOUS AND SUCCESSFUL

Prevailing cultural and social perceptions assume a direct connection between success and recognition on the one hand and intrinsic qualities on the other hand. These notions are particularly prevalent with respect to IP protected subject matter, from cultural works, through brands and celebrities, to patent protected technologies: the technological product which became a market standard is surely the best-fitting one; the Mona Lisa is probably the finest painting ever made; the web-based social network that conquered our world must have intrinsic attributes that are far superior to its competitors, and Hollywood stars who acquire worldwide

reputation owe their fame to some unique combination of personality, talent, and genius that others lack.[28]

Admittedly, there exists a general recognition that quality, genius, or talent alone may be insufficient for achieving phenomenal success, and that additional factors play an important role in the popularity equation: thus, investment and hard work,[29] the ability to appeal to elusive public tastes,[30] or massive advertising and marketing[31] may all have significant impact too. However, even when acknowledging the importance of a mixture of traits, fame and success are still perceived as a direct result of *intrinsic* qualities or actions that, to a large extent, are subject to the control of the relevant individual or firm who seeks the protection of intellectual property.

Examining success through the lens of complexity portrays a different picture. A series of interdisciplinary works in complexity and network science from recent years offers a new understanding of

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[28] For a general account of the prevailing perception of success and some particular observations about the Mona Lisa and Facebook, *see, e.g.*, Matthew J. Salganik & Duncan J. Watts, *Social Influence: The Puzzling Nature of Success in Cultural Markets, in* THE OXFORD HANDBOOK OF ANALYTICAL SOCIOLOGY, 315, 336–37 (Peter Hedström & Peter Bearman eds., 2009) (hereinafter "Salganik et. al., 2009"); WATTS: OBVIOUS, *supra* note 8, at 79–81.

[29] *See, e.g.*, MALCOLM GLADWELL, OUTLIERS: THE STORY OF SUCCESS (2008) (exploring the connection between outstanding personal success and hard work).

[30] EVERETT ROGERS, DIFFUSION OF INNOVATIONS, 15–16 (5th ed. 2003) (detailing several intrinsic qualities related to successful diffusion of innovation, including compatibility with prevailing public values and norms).

[31] *See, e.g.*, Roberta Rosenthal Kwall, *Fame*, 73 IND. L.J. 1, 30–34 (1997) (pointing at the role of sophisticated mass-media exposure in the building of celebrities' image); Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CALIF. L. REV. 805, 822–23(1988) (stressing the contribution of marketing and distribution systems to the economic success of commercialized technologies); Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, 19 BERKLEY TECH. L. J. 785 (2004) (emphasizing the role of advertising in the success of mass media cultural products).

popularity and renown.[32] This body of literature clarifies that extraordinary success is a network phenomenon that is deeply influenced by network dynamics.[33] As described earlier, the various IP protected subject matter are entrenched in the social network, in a manner that forms a two-sided network.[34] The nodes comprising it are IP protected subject matter of a certain type (brands, for example) that are linked through the social network–consumers who decide which brand to choose, or in network parlance, to which nodes to link. The topology of that system, the multiple interactions among the individuals comprising it, the social influence they exert on each other via direct and indirect interactions, their particular thresholds for adopting new innovations, the sequence of their interactions, and the particular passage of the object through the network all have a profound impact on the success (or failure) of objects entering the system.[35]

Complexity research further demonstrates that network dynamics generate significant *inequality* between the most successful and "all others." The interactions among the individual nodes in the social system create a cumulative advantage process, commonly described as a "rich get richer" dynamic.[36] Under this process, a small

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[32] In particular, *see* DAVID EASLEY AND JON KLEINBERG, NETWORKS, CROWDS AND MARKETS 479 (2010); Amac Herdagdelen & Haluk Bingol, *A Cultural Market Model*, 19(2) INT'L J. OF MODERN PHYSICS 271 (2008); ROGERS, *supra* note 30, at 23–66; Matthew J. Salganik, et al., *Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market*, 311 SCIENCE 854 (2006) (hereinafter "Salganik et. al., 2006"); Salganik et. al., 2009, *supra* note 28; Gérard Weisbuch & Sorin Solomon, *Social Percolators and Self Organized Criticality*, *in* HANDBOOK OF GRAPHS AND NETWORKS 342 (Stefan Bornholdt, Heinz Georg Schuster eds., 2003).

[33] EASLEY AND KLEINBERG, *supra* note 32, at 479.

[34] *See supra* note 22.

[35] BARABÁSI, *supra* note 9; Mark Granovetter, *Threshold Models of Collective Behavior*, 83 AM. J. SOCIOLOGY 1420 (1978) (hereinafter "Granovetter: *Threshold Models*"); Herdagdelen & Bingol, *supra* note 32, at 281; ROGERS, *supra* note 32; Weisbuch & Solomon, *supra* note 32. For a more detailed description of the "rise to success" process, *see* Michal Shur-Ofry, *Popularity as a Factor in Copyright Law*, 59 U. TORONTO L. J. 525, 528–31 (2009).

[36] Albert Laszlo Barabasi and Reka Albert, *Emergence of Scaling in Random Networks* 286 SCIENCE 509 (1999); BARABÁSI: LINKED, *supra* note 9, at 79–92; ROBERT FRANK AND PHILIPE COOK, THE WINNER TAKE ALL SOCIETY; WHY THE FEW AT THE TOP GET SO MUCH MORE THAN THE REST OF US (1995)(describing this phenomenon from an economic perspective).

advantage initially obtained by a certain node–in our case, a small advantage in the number of people choosing a certain IP protected object–is amplified by the system due to social interactions, so that in the end of the process, the most successful hits, brands, celebrities, or technologies are orders of magnitude more successful than the average.[37] Indeed, experiments demonstrate that in an artificial non-networked world, in which consumer preferences are shaped independently, without social interactions and without any information about the preferences of their peers, such substantial inequalities do not arise.[38] Moreover, the stronger the social influence, the larger the gap between the most successful subject matter and "all the rest."[39]

Even more significantly, in the real and networked world, the success of the super-successful is not *simply* related to quality, appeal, or any other intrinsic attributes. Because the emergence of success and popularity depends on a multiplicity of network factors, extremely small differences in initial system conditions, which may result from pure randomness, can have huge implications on the final outcome: the immense success–or failure–of objects diffusing within that system.[40] The process of generating massive fame and success, therefore, contains inherent unpredictability.[41]

It should be clarified, though, that intrinsic attributes are not insignificant. Complexity research does suggest a certain positive correlation between quality and success. However, this connection is

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[37] In the hard sciences, this phenomenon is termed power law distribution. S*ee, e.g.*, CHRIS ANDERSON, THE LONG TAIL: WHY THE FUTURE OF BUSINESS IS SELLING LESS OF MORE 19 (2006) (discussing power law distribution in cultural markets); BARABÁSI: LINKED, *supra* note 9, at 65–78; Herdagdelen and Bingol, *supra* note 32, at 272.

[38] Herdagdelen and Bingol, *supra* note 32, at 279–80; Salganik et al., 2006*, supra* note 32, at 854.

[39] *Id.*

[40] Sorin Solomon, *Autocatalytic Feedback Loops Amplify Microscopic Random Events to Systemic Complex Changes*, in UNIFYING THEMES IN COMPLEX SYSTEMS 29 (Hiroki Sayama, et al., eds., 2011); Granovetter: *Threshold Models*, *supra* note 35 (demonstrating how small changes in individuals' thresholds as to joining the behavior of others can be crucial in the emergence of collective behavior or in its failure to emerge)*;* Salganik et al., 2006, *supra* note 32 (empirically demonstrating the lack of direct connection between quality and success).

[41] WATTS: OBVIOUS, *supra* note 8, at 80–81; Peter Hedstrom, *Experimental Macro Sociology: Predicting the Next Best Seller*, 311 SCIENCE 311, 786 (2006); Salganik et al., 2006, *supra* note 32, at 855.

neither simple nor direct. System interactions can profoundly affect and distort it.[42] This latter insight was convincingly demonstrated in a series of large-scale experiments, which tested ratings of identical pieces of music in parallel networked environments.[43] These ratings were compared to ratings of the same music in an "artificial world," free of social influence that served as a measure of intrinsic appeal.[44] Research concluded that while the best songs never completely failed and the worst songs were never extremely successful, any other interim result was possible.[45] Moreover, stronger social influence weakened the connection between intrinsic qualities and success even further.[46] Notably, each of the parallel worlds that were designed by the researchers produced different "winners," and rated the identical group of cultural products differently, illustrating the inherent unpredictability generated by the interactions in complex environment.[47] Contrary to common intuition, then, to a certain extent, extraordinary success can be random.

Against these insights, I now turn to explore the manners in which intellectual property law treats the famous and successful. Interestingly, a close look at IP norms in various fields reveals a preference of the popular and renowned subject matter over the regular and not particularly successful. A range of intellectual property norms grants the big winners of our world additional protection, in comparison to their peers. Commercially successful technologies have greater prospects of passing the patentability threshold and obtaining patent protection.[48] Famous trademarks enjoy anti-dilution protection, which does not extend to ordinary marks[49] and the right of publicity is designed in a manner that favors celebrities over non-celebrities.[50]

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[42] Herdagdelen & Bingol, *supra* note 32, at 279; Salganik et. al, 2006*, supra* note 32, at 855.

[43] Salganik et al., 2006, *supra* note 32, at 854; Salganik et. al., 2009*, supra* note 28, at 451 (stating that the rating of the songs in the independent "world" served as an index for their quality or appeal).

[44] *Id.*

[45] Salganik et al., 2006, *supra* note 32, at 855.

[46] *Id.*; Herdagdelen & Bingol, *supra* note 32, at 279.

[47] Salganik et al., 2006, *supra* note 32, at 855.

[48] Part I –A, *infra*.

[49] Part I –B, *infra*.

[50] Part I –C, *infra*.

The following paragraphs explore this phenomenon and the possible implications of the above complexity insights for these IP norms.

A. Patentability and Commercial Success

The requirement of non-obviousness is considered the most important requirement in determining patentability. Non-obviousness implies that in order to obtain patent protection, the invention at stake has to be not only new and useful, but must also represent a technical advance that is not merely a trivial step forward in the state of the art.[51] The difficulty in determining non-obviousness, acknowledged by many courts, led to judicial development of "secondary considerations": factors that refer the court to real world circumstances extrinsic to the features of the invention, as indicators of non-obviousness.[52] One of these secondary considerations is the success of the commercialized invention.[53] In fact, commercial success has become the most influential secondary consideration and often proves decisive in establishing non-obviousness.[54] And of all commercially successful inventions, courts seem particularly impressed with the ones that achieve *immediate* success: those quick rising stars have particularly good prospects of passing the non-obviousness threshold.[55]

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[51] *See, e.g.*, ALAN L. DURHAM, PATENT LAW ESSENTIALS, 4–5, 96–97 (1999); Merges, *supra* note 31, at 822–23.

[52] Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17–18 (1966). *See also* Richard L. Robbins, Note, *Subtests of "Nonobviousness:" A Nontechnical Approach to Patent Validity*, 112 U. PA. L. REV. 1169 (1964); Jonathan J. Darrow, *Secondary Considerations: A Structured Framework for Patent Analysis*, 74 ALB. L. REV. 47 (2011).

[53] Additional secondary considerations include the extent of licensing of the invention, immediate copying by competitors, failure of others to develop the same invention, and a long-felt need for the invention. *See generally*, Darrow, *supra* note 52, at 50 (detailing these and additional considerations).

[54] Merges, *supra* note 31, at 823 (indicating the importance of commercial success as a "decisive" factor); *see also* Spencer H. Boyer, *Commercial Success as Evidence of Patentability,* 37 FORDHAM L. REV. 573 (1968–1969) (describing the development of the commercial success text).

[55] *See, e.g.*, Bayer AG v. Carlsbad Tech., Inc., 2001 WL 34125673, at *7 (S.D. Cal. Oct. 24, 2001) (noting the immediate success of a top-selling drug as an indication of nonobviousness); Henkel Corp. v. Coral Inc., 754 F. Supp. 1280, 1307 (N.D. Ill. 1990) (noting the fact that the product "spread like wildfire" indicates nonobviousness).

The underlying theory behind the "commercial success" test maintains that when a technology becomes commercially successful, uncommon ingenuity rather than ordinary skill was required to invent it. In light of this ingenuity, the public has chosen to reward the inventor for his or her efforts.[56] As described by one court, if there is doubt concerning ingenuity, "and the public has given its tribute, the judge should accord to the creator of the article the title of inventor."[57] If ingenuity is missing, so the argument continues, the invention "will sink into contempt and disregard."[58] The test, in other words, perceives commercial success as a proxy of the technical ingenuity embodied in the invention.

Both courts and scholars criticized this perception. The criticism maintains, in essence, that the test assumes a simplified link between success and technical achievement, and is based on a set of inferences that are not supported by actual data.[59] It points out that commercial success may result from a multiplicity of market-related factors that are unrelated to technical advancement. Examples include significant marketing and advertising, well-organized distribution channels, and efficient service.[60] In addition, non-technical attributes, such as the product's packaging and design, can also influence its success or failure.[61]

A prominent proposal to overcome these difficulties contends that courts facing a non-obviousness question should attempt to

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[56] Boyer, *supra* note 54, at 596.

[57] Whal Clipper Corp. v. Andis Clipper Co., 66 F.2d 162, 165 (7th. Cir. 1933).

[58] Boyer, *supra* note 54, at 596.

[59] *See, e.g.*, McClain v. Ortmayer, 141 U.S. 419, 428 (1891) (noting that success may be affected by extensive advertising and "large commissions to dealers," and not necessarily indicate the intrinsic merit of the articles in question); Boyer, *supra* note 54, at 596; Edmund W. Kitch, *Graham v. John Deere Co.: New Standards for Patents*, 1966 SUP. CT. REV. 293, 297–300 (1966) (arguing that the link between nonobviousness and commercial success involves a set of inferences that are weak and unconvincing); Merges, *supra* note 31, at 859 (arguing that commercial success, *per se,* is a poor indicator of significant technical advance); Robbins, *supra* note 52, at 1176-77 (noting various market conditions and product attributes that may lead to success and do not support nonobviousness).

[60] Merges, *supra* note 31, at 874–75.

[61] *See, e.g.*, *McClain*, 141 U.S. at 428 (cautioning the commercial success test may in fact reward attractive packaging); Robbins, *supra* note 52, at 1175–76 (noting the possible impact of packaging and other non-technical attributes).

"separate the wheat from the chaff."[62] In other words, when faced with a successful product, judges should carefully analyze the process leading to success in order to ascertain that it, indeed, results from technical advancement. They should review all market factors relating to the invention and its commercialization, such as product design and delivery, service, advertising, promotion and marketing, existing market conditions and product lines, as well as competitors' research priorities (which may explain the lack of previous success by others).[63]

Examining the issue through the lens of complexity provides ample support to the above criticism, but casts significant doubt on this proposed solution. First, research of success in complex systems indicates that the successful diffusion of an innovation is neither a direct result of intrinsic qualities of the diffusing product nor a simple consequence of the owner's marketing efforts.[64] Rather, diffusion is fundamentally a system process that depends no less on the particular structure of the social system into which the technology is released.[65] Sociologist Elihu Katz observed more than half a century ago that "[i]t is as unthinkable to study diffusion without some knowledge of the social structures in which potential adopters are located, as it is to study blood circulation without adequate knowledge of veins and arteries."[66]

Further studies on social networks and innovation diffusion have long confirmed that social structures deeply affect the diffusion of innovations: from agricultural plants, through new medical drugs, to communication technologies.[67] These insights are reinforced by cutting-edge complexity research, which demonstrates that the

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[62] Boyer, *supra* note 54, at 596.

[63] Merges, *supra* note 31, at 874–75.

[64] It should be clarified that "innovation" in the research of social networks has a broad meaning that is not confined to products and technologies capable of patent protection, but does include such subject matter. *See* ROGERS, *supra* note 30, at 12–13.

[65] ROGERS, *supra* note 30, at 23.

[66] ROGERS, *supra* note 30, at 25 (citing Katz).

[67] *See, e.g.*, James S. Coleman, et al., MEDICAL INNOVATION: A DIFFUSION STUDY (1966) (diffusion of tetracycline antibiotics); Bryce Ryan & Neil C. Gross, *The Diffusion of Hybrid Seed Corn in Two Iowa Communities*, 8 RURAL SOCIOLOGY 15 (1943) (diffusion of hybrid corn); ROGERS, *supra* note 30, at 345 (diffusion of the fax machine).

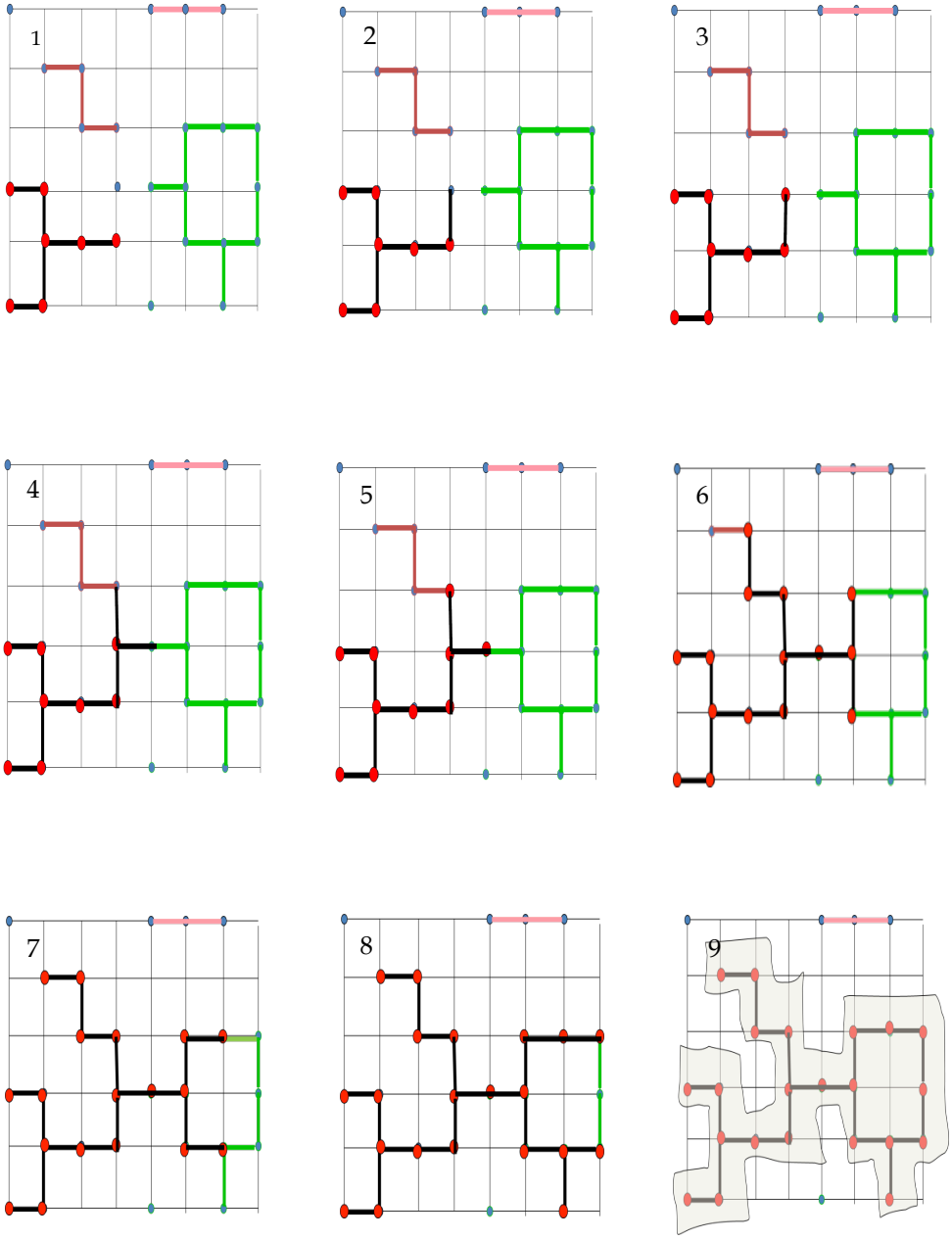
system's structure and dynamics can determine the fate of an innovation.[68]

Figure 1 on the following page illustrates this latter point, by portraying a diffusion process in a graphical (and somewhat simplified) manner. The dark lines between the nodes signal the spread of an innovation in a certain social network. Illustration No. 2 demonstrates the decision of a single person (the node in the center) to reject the innovation, which practically ends its diffusion within that network. Illustration No. 3 reflects the decision of that same person to adopt the innovation, which leads to its diffusion to the rest of the network (Illustrations Nos. 4-9). These illustrations demonstrate, then, the significance of network topology: in certain cases, the decision of a single person in a social system of whether to adopt or reject a certain technology can determine whether that innovation will become a hit–"commercial success" in patent parlance–or will spread on a much more moderate scale.[69]

[68] *See* the references cited in notes 32-47 *supra* and accompanying text.

[69] Obviously, the vulnerability of the diffusion process to the adoption decisions of a single person (or a very small number of people) is greater during the first stages of the process. S*ee* Everett Rogers, et al., *Complex Adaptive Systems and the Diffusion of Innovations*, THE INNOVATION JOURNAL: THE PUBLIC SECTOR INNOVATION JOURNAL, 10(3), art. 30, 13 (2005)**,** *available at* http://www.innovation.cc/volumes-issues/ rogers-adaptivesystem7final.pdf.

Figure 1[70]



[70] The figure is based on Solomon: *Autocatalytic Feedback Loops, supra* note 40. I deeply thank Sorin Solomon of the Racah Institute of Physics, Hebrew University of Jerusalem, for providing me with this material.

Thus, technologies possessing similar levels of technical advancement can differ significantly in their level of success (or failure) not only due to different marketing factors, but also due to slight changes in the structure of the social network in which they are diffusing.

This literature also indicates that significant success is not necessarily instant. The rate of adoption, too, is affected by network attributes, and is not uniform for all types of products and technologies.[71] The success of certain innovations transpires only after lengthy periods. The Internet, for example, took more than ten years to reach its "critical mass," while the fax machine "took 150 years . . . to become an overnight success."[72] What may seem as a failure or lack of usefulness to courts analyzing patentability, then, may in fact be a slowly diffusing innovation, which still has not reached its critical mass. The inference that a lack of success implies "obviousness" is therefore completely unobvious. [73]

These complexity insights cast further doubts on patent law's preference of commercially successful inventions. These doubts are even more significant when the inventions in question are interactive ones, such as communication technologies. The latter are particularly prone to social influence and economic network effects, and the connection between their ingenuity (or other intrinsic qualities) and their successful diffusion can be particularly slim.[74]

Unfortunately, these insights also imply that the ability of courts to "separate the wheat from chaff" by tracking the diffusion process may be very limited. This type of inquiry would require not only identifying product attributes, market conditions, and advertising activities, but also tracing back the structure of the social network, the threshold of its individual members, and the particular diffusion path of each product. This task is still a challenge for complexity

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[71] ROGERS, *supra* note 30, at 162–63.

[72] *Id.* at 345–46; *see also* Elihu Katz, et al., *Traditions of Research on the Diffusion of Innovation* 28(2), AM. SOC. REV. 241 (1963) (observing that "diffusion takes time").

[73] *Cf.* Robbins, *supra* note 52, at 1177 (making a similar point).

[74] *Supra* notes 38 & 39 and accompanying text; *see also* ROGERS, *supra* note 30, at 344 (explaining that social influence is greater in the diffusion of interactive innovations, due to the interdependency among the adopters); CARL SHAPIRO & HAL VARIAN, INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY, 13–14 (1999) (explaining the prevalence of "network externalities" in interactive technologies).

researchers and is probably completely unattainable in ordinary litigation context. This practical difficulty lends further support to the view that the preference for the commercially successful, in evaluating non-obviousness and patentability, is unjustified. I do not purport to fully explore all other measures for assessing non-obviousness here, but this analysis indicates that additional means, such as expert opinions about the intrinsic attributes of the invention, may be preferable to the test of commercial success.

Yet, the preference of the successful, it transpires, is not unique to patent law. The following section discusses a similar phenomenon in the field of trademarks.

B. Dilution and Famous Trademarks

It is now widely accepted that famous trademarks enjoy broader protection than "regular" ones.[75] One of the most prominent manifestations of this extra protection is the doctrine of dilution, currently incorporated under the US Federal Dilution Trademark Act.[76] Unlike traditional trademark protection, which is confined to circumstances that involve a risk of creating confusion among consumers, dilution affords the famous marks broader protection in cases that do not involve consumer confusion.[77] Anti-dilution protection consists of two branches: blurring and tarnishment.[78]

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[75] The broader protection of well-known trademarks is set out in a series of international instruments. *See* Council Directive 2008/95/EC, Art. 5, 2008 O.J (L. 299/ 25–26) (EC); Agreement on Trade Related Aspects of the Protection of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments – Results of the Uruguay Round, 1869 U.N.T.S. 299 [hereinafter TRIPS]; Paris Convention for the Protection of Industrial Property of March 20, 1883, 13 U.S.T. 1, T.I.A.S. No. 4931, as revised, July 14, 1967, 21 U.S.T. 1508, T.I.A.S. No. 6903, 828 U.N.T.S. 305.

[76] Federal Trademark Dilution Act of 1995, Pub. L. No. 104-98, 109 Stat. 985 (1996) (amended by the Trademark Dilution Revision Act of 2006, Pub. L. No. 109-312, 120 Stat. 1730 (codified as amended at 15 U.S.C. § 1125(c), 1127 (2012))).

[77] *See* Moseley v. V Secret Catalogue, Inc., 537 U.S. 418, 429 (2003) ("unlike traditional infringement law, the prohibitions against trademark dilution . . . are not motivated by an interest in protecting consumers"). The fact that trademark protection against dilution exceeds cases that pose a risk for consumer confusion was observed long before the codification of the doctrine, in Frank Schechter's seminal article, *The Rational Basis for Trademark Protection*, 40 HARV. L. REV. 813, 828–31 (1927).

[78] 15 U.S.C. § 1125(c) (2012).

Blurring occurs when the use of the mark weakens the connection between the mark and the owner's original product in the eyes of consumers, for example, when the mark "Tiffany's" is used by a restaurant, or the car brand "Lexus" is used for personal care products.[79] Tarnishment protects the famous mark against uses by third parties that can harm the mark's reputation, such as the sale of posters displaying the "Enjoy Coca-Cola" logo in an altered manner, reading "Enjoy Cocaine."[80]

This expanded anti-dilution protection, as noted, is explicitly confined to famous marks.[81] Empirical research examining the implementation of the doctrine in US case law further reveals that, among the famous and renowned marks, those that are *super-famous* have greater prospects of succeeding in anti-dilution claims and benefiting from the increased protection, in comparison to marks that are only mildly famous.[82]

In the absence of a risk for consumer confusion, the theoretical basis for this extended protection afforded to famous marks is far from clear and is extensively debated.[83] Two of the prominent

[79] *See, respectively*, Tiffany & Co. v. Bos. Club, Inc., 231 F. Supp. 836 (D. Mass. 1964)(finding that the use of "Tiffany's" by a Boston restaurant diluted the famous jewelry trademark); Toyota Jidosha Kabushiki Kaisha v. Natural Health Trends Corp., No. CV 04-9028, 2005 U.S. Dist. LEXIS 10442 (C.D. Cal. 2005) (holding that the mark "Lexus" cannot be used by a producer of personal care products).

[80] Coca-Cola Co. v. Gemini Rising, Inc., 346 F. Supp. 1183 (E.D. N.Y. 1972) (enjoining defendant's use). For additional case law protecting trademarks against dilution in the absence of consumer confusion, *see* Katya Assaf, *The Dilution of Culture and the Law of Trademarks*, 49 IDEA 1, 57–74 (2008).

[81] 15 U.S.C. § 1125(c) (2012).

[82] Clarisa Long, *Dilution*, 106 COLUM. L. REV. 1029, 1053, 1071 (2006).

[83] *See, e.g.*, Beebe, *Search and Persuasion*, *supra* note 27, at 2051–52 (2006) (discussing judicial reluctance to "protect selling power" under dilution claims); Shahar Dilbary, *Famous Trademarks and the Rational Basis for Protecting "Irrational Beliefs"*, 14 GEO. MASON L. REV. 605 (2007) (arguing that there are sound economic justifications for the extra protection of famous marks); Alexander Dworkowitz, *Ending Dilution Doublespeak: Reviving the Concept of Economic Harm in the Dilution Action*, 20 TEXAS INTELL. PROP. L. J. 25, 29, 32–41 (2011-2012) (discussing the various theoretical justifications for dilution); Long, *supra* note 82, at 1034–35 (reviewing possible justifications for the doctrine); Glynn Lunney, *Trademark Monopolies*, 48 EMORY L. J. 367, 476 (1999) (criticizing the efficiency of protecting famous marks beyond consumer confusion); Kenneth L. Port, *The "Unnatural" Expansion of Trademark Rights: Is a Federal Dilution Statute Necessary?*, 85 TRADEMARK REP. 525 (1995) (criticizing the anti-dilution legislation as expansive and affording a proprietary protection to famous marks).

justifications, proposed in this context, link dilution to the intrinsic qualities of the successful trademark. Under one view, explicitly reflected in the discussions preceding the Federal Act, the mark's fame results from a substantial investment of the owner in the brand, from superior product quality, or from a mixture of both.[84] Its owner, therefore, *deserves* to reap the benefits of this special investment.[85] An additional view conceptualizes dilution in terms of public good theory, as a mechanism for preventing free riding. The protection afforded to the famous marks, so goes the argument, enables their producers to internalize the positive externalities created by these marks, and incentivizes the creation and supply of famous marks.[86] A related argument maintains that the creation and maintenance of famous marks entails significant costs, and an extended protection is thus required for incentivizing these activities.[87]

Common to these views is the underlying perception of fame and goodwill as direct indicators of the intrinsic qualities of the trademark and the products it designates. The implicit assumption is that extraordinary success results from greater investment, whether in the product itself or in its advertising and branding, and/or from higher quality. The owners of such winner marks, therefore, deserve greater

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[84] H.R. REP. NO. 104-374, at 3 (1995) ("The concept of dilution recognizes the substantial investment the owner made in the mark."); *see also* WILLIAM LANDES & RICHARD POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 208 (2003) (discussing investment in product quality by the owners of famous marks as a justification for anti-dilution protection); Long, *supra* note 82, at 1057–58 (suggesting that the protection of famous marks may be linked to the investment of their owners in product quality, but further indicating that his may not be justified from a social welfare perspective); *cf. Moseley*, 537 U.S. at 435 (Kennedy, J., concurring) (referring to "the power of the famous mark to give customers the assurance of quality").

[85] Long, *supra* note 82; Mohammed Amin Naser, *Re-Examining the Functions of Trademark Law*, 8 CHI.-KENT J. INTELL. PROP. 99, 109 (2008) (arguing that owners of well-known trademarks deserve more protection than owners of ordinary marks, since their repute is achieved due to owners investment, though recognizing the interest of the public to use such marks).

[86] *See, e.g.*, David J. Franklyn, *Debunking Dilution Doctrine: Towards a Coherent Theory of the Anti Free-Rider Principle in American Trademark Law*, 56 HASTINGS L. J. 117 (2004) (explaining dilution in terms of free riding and public goods).

[87] Long, *supra* note 82, at 1059–62 (noting that "[m]arks are cheap to create . . . . What is expensive is creating a mark that is both well known and well regarded. By limiting protection to famous marks, the statute attempts to identify those marks whose costs to create and maintain will be high.").

protection according to one view and require greater incentive according to the other.

A complexity perspective, however, clarifies that these notions are incomplete and inaccurate. Fame, we have seen, is a network phenomenon. Its relation to quality and investment is neither simple nor direct.[88] Brands of indistinguishable quality and similar investment can achieve completely different levels of fame and renown due to slight changes in the structure of the social network in which they are embedded and additional, random factors.[89] Brands of lesser quality can sometimes succeed more than intrinsically preferable ones, and less advertised products can sometimes surpass their highly advertised peers.[90] Notably, many famous trademarks designate luxury goods that serve as means of social distinction.[91] As such, they are particularly susceptible to social influence and to the distorting effect of network dynamics.[92] Moreover, the process yielding fame and success embeds an inherent unpredictability: the fate of a particular brand transpires only *ex-post*, after its diffusion in the relevant social system.[93] Designing a specific *ex ante* incentive for the creation of famous brands by providing these brands with an extended *ex-post* protection against dilution[94] is likely to prove inefficient, if not impossible.

What are the normative implications of the above analysis for the doctrine of dilution? Complexity insights certainly question the distinction between the famous and the ordinary in this context. Notably, the question of whether a mark is sufficiently famous to

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[88] *Supra* notes 40 & 41 and accompanying text.

[89] *Id.*

[90] The case of Hush Puppies is one such example; the brand experienced an amazing increase in sales during 1995–1996, which did not result from any significant increase in advertising. For an account of the story, *see* MALCOLM GLADWELL, THE TIPPING POINT, HOW LITTLE THINGS CAN MAKE A BIG DIFFERENCE 3–8 (2002).

[91] *See, e.g.*, THORSTEIN VEBLEN, THEORY OF THE LEISURE CLASS 167–87 (1899) (observing that consumption of certain "luxury goods" is a means for obtaining and signaling social status and social acceptance); Barton Beebe, *Intellectual Property and the Sumptuary Code,* 123 HARV. L. REV. 809, at 10–15 (2010) (highlighting the differentiating function of fashion brands as status indicators); Jeremy Sheff, *Veblen Brands*, 96 MINN. L. REV. 769 (2012).

[92] *Supra* notes 38–40 and accompanying text.

[93] *Supra* notes 41–47 and accompanying text.

[94] *Supra* notes 86–87 and accompanying text.

deserve anti-dilution protection is consistently debated.[95] Distinguishing the sufficiently famous from the non-famous, mildly famous, or niche-famous entails substantial effort and costs on part of both litigants and courts. Judges seem to struggle with the requisite level of fame, and case law on this point is far from coherent.[96] If the level of fame is not directly and simply related to quality, investment, or any other intrinsic attributes, then these efforts–and the distinction itself–are rather questionable.

Yet, the exact implications on the desired scope of trademark protection are less obvious and depend on one's perception of the fundamental rationale for such protection. A thorough review of the expansive and restrictive views on this issue is beyond the scope of this article,[97] but complexity bears normative relevance for each. An expansive proprietary approach may conclude that dilution should be extended to protect all types of trademarks, regardless of level of fame and renown.[98] On the other hand, a theory that regards trademark protection (and scope) as rooted in social welfare considerations, may doubt the overall justification of the dilution doctrine in cases exceeding consumer confusion.[99]

In any case, if fame is not directly related to investment and quality, may be partly random, and cannot be simply incentivized in a targeted manner, then the preference of the famous and successful under the doctrine of dilution is indeed difficult to defend.

The next section concludes this Part by exploring a similar preference in an additional area of intellectual property: the protection afforded to famous people.

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[95] *See* Long, *supra* note 82, at 1053, 1071 (discussing the distinction in case law between the super famous and mildly famous marks); Xuan-Thao Nguyen, *Fame Law: Requiring Proof of National Fame in Trademark Law*, 33 CARDOZO L. REV. 101, 106, 110 (2011) (analyzing the "fame" requirement in case law and further arguing that, after the 2006 amendment, the application of the dilution doctrine requires national, rather than 'niche," fame).

[96] Nguyen, *supra* note 95, at 116–23 (analyzing the inconsistent implementation of the "fame" requirement by different courts).

[97] *See* Beebe: *Search and Persuasion*, *supra* note 27 (describing the restrictive and expansive attitudes in trademark law).

[98] *See generally* 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 2:30 (4th ed. Supp. 2012) (describing the proprietary approach towards trademark protection).

[99] *See, e.g.*, Assaf, *supra* note 80.

C. The Right of Publicity

The right of publicity affords control over the commercial exploitation of a person's image.[100] The theoretical analysis of this right in scholarship is very much akin to that of trademark dilution.[101] Like dilution, the right of publicity exceeds circumstances that raise a concern of public deception.[102] Similar to dilution and to copyright protection, the right of publicity is often conceptualized in terms of incentive and reward. The former rationale, highlighted by the Supreme Court in the *Zacchini* case, portrays the right of publicity as a means for encouraging individuals to develop valuable personas.[103] The second, Lockean, justification perceives the right to control uses of the image as part of the right to the fruits of one's labor.[104]

Most significant for our purposes, much like the doctrine of dilution, the right of publicity, too, favors the popular and renowned

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[100] J. Thomas McCarthy, *The Human Persona as Commercial Property: The Right of Publicity*, 19 COLUM.-VLA J.L. & ARTS 129, 130 (1995).

[101] Indeed, several commentators pointed at the proximity between the right of publicity and trademark law. *See, e.g.*, Stacey Dogan & Mark Lemley, *What the Right of Publicity Can Learn from Trademark Law*, 58 STAN. L. REV. 1161, 1164, 1190–91 (2006) (advocating a strong similarity between trademark protection and the right of publicity); Kwall, *supra* note 31, at 47 (analogizing the protection of celebrities to the protection of famous trademarks); Long, *supra* note 82, at 1061–62 (describing dilution as a "right of publicity for corporations").

[102] Dogan & Lemley, *supra* note 101, 1164; Jennifer L. Carpenter, *Internet Publication: The Case for an Expanded Right of Publicity for Non-Celebrities*, 6 VA. J.L. & TECH. 3, 13–14 (2001).

[103] Zacchini v. Scripps-Howard Broad. Co., 433 U.S. 562, 576–77 (1977) (noting that the right of publicity is not merely a reward but a form of providing an incentive). For different views of the incentive justification, *compare* Kwall, *supra* note 101, at 35–38 (arguing that celebrities require an incentive in light of the disadvantages entailed in their celebrity status), *with* Diane Leenheer Zimmerman, *Fitting Publicity Rights into Intellectual Property and Free Speech Theory: Sam, You Made the Pants Too Long!*, 10 DEPAUL-LCA J. ART. & ENT. L. & POL'Y 283, 307 (2000) (challenging the necessity and effectiveness of providing celebrities with incentive in the form of a right of publicity).

[104] *Zacchini*, 433 U.S. at 576; Carpenter, *supra* note 102, at 34; Dogan & Lemley, *supra* note 101, at 1181.

over the ordinary and anonymous.[105] While many states allow non-celebrities to claim under right of publicity, others limit the right to "personality" or "persona," and not to any individual.[106] Moreover, even when statutes or common law recognize a broad right of publicity that is not confined to well-known figures, the implementation of that right in case law reveals a preference of celebrities over non-celebrities.[107] As Jennifer Carpenter observed, courts often apply the "identifiability" requirement (*i.e.*, the requirement that the person whose identity was appropriated is "identifiable") in a manner that necessitates a degree of national fame.[108] In addition, non-celebrities experience difficulties in demonstrating that their image has "commercial value," a concept introduced by courts as a prerequisite for a successful assertion of the right.[109] As one court explained, in the absence of any particular fame or notoriety, the identity of the non-famous plaintiff lacks "intrinsic value" and is "wholly fungible."[110] While many scholars criticize this preference of the famous under the right of publicity,[111] others support it and suggest that the right should be limited to celebrities only.[112] The issue is becoming more acute in

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[105] Carpenter, supra note 102, at 13 (demonstrating this preference in case law); Claire E. Gorman, *Publicity, and Privacy Rights: Evening Out the Playing Field for Celebrities and Private Citizens in the Modern Game of Mass Media*, 53 DEPAUL L. REV. 1247, 1248 (2004) (arguing that non-celebrities' right of publicity is merely theoretical); K.J. Green, *Intellectual Property Expansion: The Good, the Bad, and the Right of Publicity*, 11 CHAP. L. REV. 521, 538 (2008) (arguing that the right over-protects celebrities and under-protects non-celebrities).

[106] Alicia M. Hunt, Comment, *Everyone Wants To Be a Star: Extensive Publicity Rights for Noncelebrities Unduly Restrict Commercial Speech*, 95 NW. U. L. REV. 1605, 1625–26 (2001).

[107] Carpenter, *supra* note 102, at 24 (arguing that case law "overwhelmingly favor[s] the protection of celebrity publicity rights at the expense of non-celebrities"); Gorman, *supra* note 105, 1248–49.

[108] Carpenter, *supra* note 102, at 18–20.

[109] Carpenter, *supra* note 102, at 24; Hunt, *supra* note 106, at 1606–08, 1628.

[110] Cox v. Hatch, 761 P.2d 556, 564–66 (Utah 1988).

[111] *E.g.* Carpenter, *supra* note 102, at 12; Gorman, *supra* note 105, at 1247–48; Greene, *supra* note 105, at 538.

[112] *See, e.g.*, Peter L. Felcher & Edward L. Rubin, *Privacy, Publicity, and the Portrayal of Real People by the Media*, 88 YALE L.J. 1577, 1591, n.78 (1979) (suggesting confining the right to individuals who have previously exploited their persona in a commercial manner); Hunt, *supra* note 106, at 1642–46.

the age of new media, with its ample opportunities for commercial use of the images of ordinary people.[113]

Complexity, again, illuminates this controversy by providing a deeper understanding of the rise-to-success process. This understanding supports the observations of numerous scholars that the "value" of celebrities is not a simple result of the incentive provided to them or the hard work they invest, but depends on multiple factors such as agents, studios, marketing teams, as well as reception by the public.[114] But complexity further clarifies that the role of the public in generating success is not confined to mere reception. Rather, it is the complex social system and the interactions among its members that generate *extraordinary* fame and create the steep disparity between celebrities and all others.[115] Counter-intuitively, this vast disparity between the world's idols and ordinary people does not directly result from unique intrinsic qualities or massive marketing efforts, but is the product of inherent network dynamics, which include a certain degree of randomness.[116] It should perhaps be clarified: the lesson of complexity is *not* that fame and success are purely random, but rather that, as Michael Madow accurately observed, "fame does not play fair; it plays favorites."[117] In other words, extraordinary fame of people, much like that of trademarks, is not *simply* related to investment or

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[113] Carpenter, *supra* note 102, 25 (maintaining that the internet increases the importance of the right of publicity for non-celebrities); *cf.* Gorman, *supra* note 105, at 1277 (both making similar arguments with regard to mass media use of images of ordinary people); Greene, *supra* note 105, at 536–38; Hunt, *supra* note 106, at 1605 (indicating that there are dozens or even hundreds of cases involving non-celebrities).

[114] *See, e.g.* Johanna Gibson, *A Right to My Public: Copyright, Human Right or Privacy*?, *in* 3 NEW DIRECTIONS IN COPYRIGHT LAW 115, 122 (Fiona Macmillan & Kathy Bowrey eds. 2006) (criticizing the "simplistic model of creativity" presumed by the incentive justification of the right); Dogan & Lemley, *supra* note 101, at 1181 (pointing at the lack of direct relation between labor and celebrity value); Michael Madow, *Private Ownership of Public Image: Popular Culture and Publicity Rights*, 81 CALIF. L. REV. 125, 178, 189–196 (1993) (emphasizing the role of the public and the media in creating celebrities' images); Mark P. McKenna, *The Right of Publicity and Autonomous Self-Definition*, 67 U. PITT. L. REV. 225, 252–53 (2005) (noting that the assumption that individuals create the value of their identity is "a gross oversimplification" and emphasizing the role of public reaction in generating success).

[115] *Supra,* notes 37–39 and accompanying text.

[116] *Supra,* notes 40–41 and accompanying text.

[117] Madow, *supra* note 114, at 189.

talent and cannot be directly incentivized, even if one assumes that incentivizing it is a worthy social goal.

To a certain extent, these insights may demonstrate the elusiveness of the traditional rationales of incentive or reward as justifications for the right of publicity.[118] They may also bring to the fore another rationale, which does not lose its power under the lens of complexity: one that links the right of publicity to personality theories, and to the protection of identity, dignity, or personhood.[119] Exploring this theoretical justification in full exceeds the scope of this article. However, personality justifications equally apply to both celebrities and non-celebrities.[120] Therefore, whatever the theoretical basis for the right of publicity may be, the above analysis supports the view that this right should not distinguish between celebrities and non-celebrities.

Notably, an IP protection regime that does not specifically favor the famous and successful will not deprive the world's celebrities, or the owners of other IP protected subject matters, the benefits of their success. They will continue to enjoy the rich-get-richer effect of a networked environment and the financial rewards backed by intellectual property protection. The analysis above indicates, however, that there are no solid grounds for the intentional success-preference currently prevailing in various norms in the field of IP.

On a more general note, the case studies discussed in this Part demonstrate the potential influence of complexity on the design of norms in various branches of intellectual property. The next Part moves on to illustrate that in some cases, complexity notions are *already* implicitly embedded in IP doctrine.

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[118] *Cf.* Dogan & Lemley, *supra* note 101, at 1162–63 (arguing that the traditional theoretical justifications for the right of publicity are "elusive"); Madow, *supra* note 114, at 179 (arguing that the rationales for the right of publicity are "dubious" or "erroneous"); McKenna, *supra* note 114, 251–52 (criticizing the prevailing justifications for the right of publicity).

[119] For a discussion of personality justifications for the right of publicity, *see, e.g.*, Gibson *supra* note 114, at 127; Kwall, *supra* note 101, at 39; *cf.* McKenna, *supra* note 114, at 251–52 (arguing that the right of publicity is not based on economic value but on the right to autonomous self-definition).

[120] McKenna, *supra* note 114, at 229 (arguing that from the perspective of identity protection celebrity and non-celebrity interests in controlling uses of their image are quite similar).

III. COMPLEXITY IN IP DOCTRINE: THE EXPLANATORY POWER OF COMPLEXITY REDUCTION

The notion of complexity reduction is a prevalent theme in complexity theory. The various disciplines studying complex systems maintain that systems comprised of numerous interacting components need to reduce complexity to a certain extent, in order to cope with the ever-increasing complexity of their environment, to avoid chaos and to function at the system level.[121]

Thus, scientists in the hard sciences sometimes describe the "flocking" of a system's individual components towards similar behavior, a phenomenon observed across a range of complex systems, as a means of reducing complexity that enables the system and its components to cope with their complicated environment.[122] Satisficing, a term coined by Herbert Simon half a century ago, reflects an analogous concept in the social sciences.[123] According to Simon, in a complex environment and absent complete information, a "satisficing" strategy, which ensures satisfaction of all the needs at a *certain* level, is more rationale than an optimizing one.[124] Empirical research indeed demonstrates that people's well-being decreases when external complexity, represented by the variety of choices they face, increases beyond a certain level.[125]

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[121] *See*, e.g., Yaneer Bar-Yam, *Complexity Rising: From Human Beings to Human Civilization, a Complexity Profile*, in 16–19 ENCYCLOPEDIA OF LIFE SUPPORT SYSTEMS (UNESCO, 2002) (as a way of confronting rising environmental complexity); NIKLAS LUHMANN, SOCIAL SYSTEMS 27–30 (John Bednarg with Dirk Baecker trans., 1995) (describing the necessity of complexity reduction in social system); JOHN MAEDA, THE LAWS OF SIMPLICITY i–iv (2006) (arguing that in the technological age "simplicity = sanity"); Nowotny, *supra* note 18, at 29 (discussing complexity reduction as a social phenomenon); Rogers et al., *supra* note 30, at 8 (describing the phenomena of flocking and the emergence of critical mass as means of complexity reduction); Miguel Pina e Cunha & Armenio Rego, *Complexity, Simplicity, Simplexity*, 28(2) EU. MANAGEMENT JOURNAL 85, 86 (2010) (stressing the importance of reducing complexity in organizational contexts).

[122] Bar-Yam, *supra* note 121, at 16–19; Rogers et al., *supra* note 30, at 7–8.

[123] Herbert A. Simon, *Rational Choice and the Structure of the Environment*, 63(2) PSYCHOL. REV. 129, 129, 136 (1956).

[124] *Id.*

[125] See generally BARRY SCHWARTZ, THE PARADOX OF CHOICE: WHY MORE IS LESS (2004) (discussing a series of experiments examining consumer behavior in the face of ample choice).

Similarly, sociologist Niklas Luhmann perceived complexity reduction as central to social order.[126] Luhmann maintained that the reduction of complexity functions as a protective mechanism, which allows the social system to transform from lack of organization to "organized complexity."[127] Parallel insights appear in business management literature, which regards complexity reduction as a means of coping with the increasing complexity of organizations.[128] Recent multi-disciplinary literature reinforces this understanding and observes that beyond a certain level of complexity a system's failure may be inevitable.[129]

Cognitive scientists also acknowledge the importance of reducing complexity.[130] Patterns, schema, and generalizations are all perceived as cognitive tools for complexity reduction.[131] These mechanisms allow the human brain, itself a complex system, to quickly identify and categorize information, and facilitate processing and comprehension of the overwhelming amount of data surrounding us.[132] Scholars in the field of semiotics and literature similarly highlight the role of cultural patterns, such as literary genres, in reducing complexity.[133] These modes place books, films, and additional cultural works in a recognizable social and historical

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[126] LUHMANN, supra note 121, at 27–30, 84–95.

[127] LUHMANN, supra note 121, at 27–30, 84–95; Eva M. Knodt, *Foreword* to NIKLAS LUHMANN, SOCIAL SYSTEMS, at xviii (1995).

[128] Cunha & Rego, *supra* note 121, at 92 (maintaining that "only simplicity can cope with complexity").

[129] WATTS, OBVIOUS, *supra* note 8, at 239–40.

[130] *See, e.g.*, MICHAEL W. EYSENCK, PRINCIPLES OF COGNITIVE PSYCHOLOGY, 213–14 (2d ed. 2001); Steven Harnad, *To Cognize is to Categorize: Cognition is Categorization*, *in* HANDBOOK OF CATEGORIZATION IN COGNITIVE SCIENCE 22 (Henri Cohen & Claire Lefebvre eds. 2005); DAVID J. SCHNEIDER, THE PSYCHOLOGY OF STEREOTYPING 125, 170 (2004); *cf.* LUHMANN, *supra* note 121, at 84–95 (observing that "schematism" and "generalizations" reduce complexity).

[131] *Id.*

[132] *Id.*

[133] *See, e.g.*, DANIEL CHANDLER, SEMIOTICS: THE BASICS 182 (2002); DANIEL CHANDLER, AN INTRODUCTION TO GENRE THEORY 12 (1997) *available at* http://www.aber.ac.uk/media/Documents/intgenre/intgenre.html; ALISTAIR FOWLER, KINDS OF LITERATURE, AN INTRODUCTION TO THE THEORY OF GENRES AND MODES 22 (1982).

context and make them more comprehensible to their audience, thus easing "the effort of attention".[134]

Complexity reduction, it should be stressed, does not equal stability, rigidity, or stagnation.[135] The science of complexity recognizes that complex systems of all types– from social and economic systems, through cities, to the world-wide-web and biological systems–are in a constant state of change and fluctuation; they respond to outer stimuli and portray both dynamism and adaptability.[136] Along with complexity reduction, these attributes, too, are perceived as essential for the system's functioning.[137] Complexity reduction, then, is not dichotomous to complexity, but rather serves as a mechanism that supports the evolution and functioning of complex systems.[138]

A look at intellectual property law reveals that the notion of complexity reduction is already embedded in several existing IP norms. Explicitly acknowledging it as an underlying consideration can deepen our understanding of these norms or provide them with new and enhanced justifications. The following sections illustrate this point by looking at two examples. The first concerns protection thresholds in trademark law. The second explores various subject matters that copyright law is reluctant to protect.

A. Trademark Thresholds

Distinctiveness is probably the most significant concept in trademark law and constitutes the fundamental threshold for the registration of trademarks.[139] Under trademark doctrine, distinctive

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[134] FOWLER, *supra* note 133.

[135] Cunha & Rego, *supra* note 121, at 90–92.

[136] Barabási, *Networks*, *supra* note 6 (discussing the dynamic attributes of the web); GIACS, COMPLEXITY, *supra* note 2, at 13; MITCHELL *supra* note 2, at 13, 17; JUVAL PORTUGALI, SELF ORGANIZATION AND THE CITY 85 (1999) (discussing the adaptability of cities to changing environments); WATTS, *supra* note 8, at 100; Bar-Yam, *supra* note 121, at 31–32 (making similar observations with respect to the social system); Urry, *supra* note 12, at 3.

[137] GIACS, COMPLEXITY, *supra* note 2, at 17.

[138] Cunha & Rego, *supra* note 121, at 87.

[139] *See, e.g.*, Mark P. McKenna, *Teaching Trademark Theory Through the Lens of Distinctiveness*, 52 ST. LOUIS U. L. J. 843, 846 (2008) (describing distinctiveness as "the most foundational" trademark concept).

marks can obtain trademark protection, while those lacking distinctiveness do not qualify for such protection.[140] International instruments also regard distinctiveness as the primary trademark threshold.[141]

Distinctiveness refers to a mark's ability to differentiate the particular products or services which it designates from other products or services.[142] The prospects of obtaining IP protection decrease when the mark's ability to distinguish is weak or limited.[143] To evaluate the strength of the mark, courts often use the image of a continuum that varies according to the level of distinctiveness.[144] At one end of the spectrum are "fanciful" and arbitrary marks (Kodak, for example), which are "inherently distinctive" and easily cross the trademark threshold.[145] At the other end are generic marks that designate a class of goods or services.[146] Such marks are unable to distinguish a particular product or service, and therefore do not qualify for protection.[147]

These trademark thresholds reflect the principle of complexity reduction. Niklas Luhman, one of the prominent writers on complexity reduction in social systems, observed that "[i]nformation reduces complexity insofar as it announces a selection and thereby

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[140] MCCARTHY, supra note 98, at § 11.2.

[141] *See, e.g.*, First Council Directive (EEC) 89/104 of Dec. 21, 1988, to Approximate the Laws of Member States Relating to Trade Marks, (1989) OJ L 040/1, now replaced by Directive 2008/95/EC of Oct. 22, 2008 § 1(b) (providing that "trade marks which are devoid of any distinctive character" will not registered or shall be declared invalid)*;* TRIPS, *supra* note 75, at § 15 ("Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark.").

[142] 15 U.S.C. § 1127(2012) (definition of "trademark").

[143] *See* Abercrombie & Fitch Co. v. Hunting World, Inc., 537 F.2d 4 (2nd Cir. 1976); KENNETH L. PORT, TRADEMARK LAW AND POLICY 146 (2d ed. 2008).

[144] *Id.*

[145] *See id.*

[146] *See id.*

[147] MCCARTHY, *supra* note 98, at § 11.2; PORT, *supra* note 143, at 141, 146. The middle of the spectrum contains "suggestive" and "descriptive" marks, whose levels of distinctiveness are lower than arbitrary marks, yet higher than generic ones. These types of trademarks may cross the trademark threshold and obtain protection if they acquire "secondary meaning," *see* MCCARTHY, *supra* note 98.

excludes possibilities."[148] Distinctive trademarks perform exactly this function. In the language of the Lanham Act – which is surprisingly reminiscent of Luhmann's description–trademarks "identify and distinguish [a person's] goods . . . from those manufactured or sold by others . . . ."[149] By allowing consumers to rely on them as source indicators, distinctive marks "announce selection" and "exclude possibilities."[150] As classic trademark theory recognizes, distinctive marks facilitate communication, assist consumers in organizing information about products or services, improve the quality of information in the marketplace, and reduce consumer search costs.[151] In other words, the protections afforded to distinctive marks under trademark doctrine supports their role as complexity reduction mechanisms.

Consequently, when a mark does not promote complexity reduction, the support of trademark law is limited or completely denied. Consider, for example, a generic mark that designates a *group* of products in the eyes of the public. The registration of such a mark as a trademark interferes with complexity reduction. First, the public may need to use the mark in its generic sense as a "word," and may be unable to do so if the mark is protected as a trademark.[152] In addition, due to its generic nature, the use of the mark by its owner neither "announces selection" nor "excludes possibilities" in the eyes of consumers, but rather increases uncertainty.[153] Thus, it is the denial of trademark protection in such circumstances that serves complexity

[148] LUHMANN, *supra* note 121, at 68.

[149] 15 U.S.C. § 1127 (definition of "trademark").

[150] *Cf.* LUHMANN, *supra* note 121, at 68.

[151] *See, e.g.,* Qualitex Co. v. Jacobsen Prods. Co., 514 U.S. 159, 163–64 (stating that trademarks reduce "the customer's costs of shopping and making purchasing decisions"); Ann Bartow, *Likelihood of Confusion*, 41 SAN DIEGO L. REV. 721, 728–29 (2004) (describing trademark's role in reducing search costs); Stacey Dogan & Mark Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L. REV. 777, 778–79 (2004) (describing trademarks' function in improving information flow); Deven Desai & Sandra Reirson, *Confronting the Genericism Conundrum*, 28 CARDOZO L. REV. 1789, 1796–99 (2007)(discussing the cost-decreasing attributes of trademarks).

[152] For the significance of language and shared meaning for the reduction of complexity in the social system, *see* LUHMANN, *supra* note 121, at 92–96; Nowotny, *supra* note 18, at 18–19.

[153] *Cf.* LUHMANN, *supra* note 121, at 68 (noting that information does not always reduce complexity but can sometimes increase uncertainty).

reduction. More broadly, the above analysis demonstrates that distinctiveness, genericism, and the spectrum of trademark thresholds are doctrinal tools that implicitly reflect and support complexity reduction.

Interestingly, trademark thresholds are not static. Trademark doctrine recognizes, for example, that an initially distinctive mark can become generic over time; when this happens, the mark no longer designates the particular product to which it was initially affixed, but becomes synonymous with an entire group of products: aspirin, linoleum, and thermos are a few famous examples.[154] This process results in the complete or partial expiry of trademark protection.[155] In such circumstances, complexity reduction considerations point toward different directions at different points of time. When the mark is distinctive they support its protection; later, when the same mark becomes generic, they support its expiry. Trademark doctrine is dynamic enough to accommodate this change. This flexibility in the doctrine demonstrates, again, that a complexity perspective does not entail a uniform and static approach ("minimalist" or "maximalist") towards the scope of intellectual property protection.[156] Rather, trademark law, in this case, is sensitive to real world settings and reflects another complexity notion: the adaptability and dynamism of complex systems.[157]

B. Copyright and "Problematic" Subject Matter

Complexity reduction considerations are implicitly embedded in copyright doctrine too. The prominent examples in this field concern a range of "problematic" subject matter, which copyright law has long been reluctant to protect. Thus, for instance, single words and short phrases do not normally warrant copyright protection.[158]

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[154] *See generally* King-Seeley Thermos Co. v. Aladdin Indus., Inc., 321 F.2d 577 (2nd Cir. 1963) (thermos); Bayer Co. v. United Drugs Co., 272 F. 505 (S.D.N.Y. 1921) (aspirin); Manufacturing Co. v. Nairn, 7 Ch. Div. 834 (1878) (linoleum).

[155] *See generally* MCCARTHY, *supra* note 98, at § 20:56; Desai & Reisrson, *supra* note 151.

[156] *Supra* note 27 and accompanying text.

[157] *Supra,* notes 135–138 and accompanying text.

[158] Justin Hughes, *Size Matters (or Should) in Copyright Law*, 74 FORDHAM L. REV. 575, 577–78 (2005) (describing copyright's reluctance to protect "small" works including words, titles and short phrases).

Blank forms are considered a "difficult" copyright subject matter since the Supreme Court decision in *Baker v. Selden*,[159] and, according to some, do not qualify for protection altogether.[160] Copyright protection of additional utilitarian patterns is also controversial, the "structure-sequence and organization" (SSO) of computer software being one prominent example.[161] Likewise, cultural patterns are often declared unprotected,[162] while television formats are a particularly challenging subject matter:[163] their eligibility for copyright protection is altogether debatable, and under one approach they can only attract "thin copyright," that is, protection against very close or literal copying.[164]

This reluctance of copyright doctrine to fully embrace these subject matters is usually justified through copyright's existing doctrinal toolbox. Courts frequently describe words and short phrases as lacking originality, thus failing to cross the primary threshold for copyright protection.[165] Similarly, courts often treat cultural patterns,

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[159] 101 U.S. 99, 102–03 (1879) (denying a copyright infringement claim with respect to accounting forms included in a book).

[160] MELVILLE NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1:2.08[D][1][b] (2006) (describing the differing views on this issue).

[161] For the different views on this issue, *see* Whelan Assoc., Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222, 1237–38 (3rd Cir. 1986) (recognizing that copyright protection can extend to software structure-sequence and organization); David Nimmer et al., *A Structured Approach to Analyzing the Substantial Similarity of Computer Software in Copyright Infringement Cases*, 20 ARIZONA ST. L.J. 625 (1988) (criticizing the broad protection of structure-sequence-and organization in the *Whelan* case); Computer Assoc. Int'l Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992) (following the proposal of Nimmer et al., and adopting a narrow test for protecting SSO).

[162] Michal Shur-Ofry, *The (Copyright) Law of Genre: A Network Perspective on Copyright Protection of Cultural Genres*, 2 FLA. ENT. L. REV. 60, 4–5 (2008), *available at* http://ssrn.com/abstract=1264902 [hereinafter Shur-Ofry, *Genre*] (analyzing copyright's reluctance to protect cultural genres).

[163] *Id.*; J. Matthew Sharp, Note, *The Reality of Reality Television: Understanding the Unique Nature of the Reality Genre in Copyright Infringement Cases*, 81 VAND. J. OF ENT. AND TECH. LAW 177, 178–79 (2005) (discussing the difficulties in protecting reality shows).

[164] For case law evoking the concept of "thin copyright" with respect to cultural genres and television formats, *see* Ets-Hokin v. SKYY Spirits, Inc., 323 F.3d 763, 766 (9th Cir. 2003); *cf.* Rice v. Fox Broad. Co.,148 F. Supp 2d 1029, 1052–53 (C.D. Cal. 2001), *aff'd in part, rev'd in part,* 330 F.3d 1170, 1174 (9th Cir. 2003).

[165] Hughes, *supra* note 158, at 617–21 (further criticizing this justification).

software SSO and television formats as unprotected "ideas,"[166] or as unprotected "*scenes-a-faire*."[167] Likewise, blank forms are sometimes classified as "methods of operations," unprotected under the Copyright Act.[168]

However, these traditional justifications are not always analytically convincing: words and short phrases, for example, may, in certain cases, be completely original, yet excluded from copyright protection.[169] Television formats can be detailed and creative expressive works, containing hundreds of pages, but still encounter difficulties when seeking the shelter of copyright.[170]

The picture becomes much clearer, though, if we look at the issue through the lens of complexity. Common to all those "problematic" subject matters is their function as complexity reduction mechanisms. Words and short phrases are signifiers in the human language, which constitutes a principal tool for reducing complexity.[171] Patterns and schema of various types–from blank

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[166] *See, e.g. Rice*, 330 F.3d at 1177 (stating that various elements in a television format of a show about revealing magical tricks are unprotected ideas); *Computer Assocs. Int'l*, 982 F.2d at 706–709 (classifying various SSO components as unprotected ideas); Walker v. Time Life Films, Inc., 784 F.2d 44, 48–50 (2d Cir. 1986) (holding that components of a dramatic genre constitute unprotected ideas).

[167] *Walker*, 784 F.2d at 50 (stating that the presence of drunks, prostitutes, and stripped cars constitutes *scenes-a-faire* in a police-drama taking place in the Bronx); Hoehling v. Universal City Studios, Inc., 618 F.2d 972, 979 (2d Cir. 1980) (describing *scenes-a-faire* as elements that are "indispensable, or at least standard, in the treatment of a given topic"); Idema v. Dreamworks, Inc., 162 F. Supp. 2d 1129, 1186 (C.D. Cal. 2001) (stating that cliché characteristics of a protagonist constitute *scenes-a-faire*). For the application of the *scenes-a-faire* doctrine with respect to software, *see, e.g.,* Computer Management Assistance Co. v. DeCastro, Inc., 220 F.3d 396, 401–02 (5th Cir. 2000); Eng'g Dynamics v. Structural Software, Inc., 26 F.3d 1335, 1347 (5th Cir. 1994).

[168] 7 USC § 102(b)(2012); Baker v. Selden, 101 U.S. 99, 103 (1879).

[169] *See, e.g.*, the renowned English case of, Exxon Corp. v. Exxon Ins. Consultants Int'l, Ltd., [1982] Ch. 119, 120 (E.W.C.A.). *See also* Hughes, *supra* note 158, at 578 (arguing that the lack of protection should be based upon the notion of a "work" rather than upon lack of originality).

[170] Shur-Ofry, *Genre*, *supra* note 162, at 25–28 (demonstrating that the prevailing justifications for not protecting television formats are not always convincing). For similar doctrinal incoherencies in the protection of software SSO and databases structures, *see* Michal Shur-Ofry, *Databases and Dynamism,* 44 MICH. J. L. REF. 315, 333–37 (2011) [hereinafter Shur-Ofry, *Databases*].

[171] *Supra* note 152 and accompanying text.

forms, to structures and organization of software, to cultural patterns– also play an important complexity reduction role by accelerating the processing and comprehension of information.[172] In addition, such patterns form a common starting point that simplifies interaction.[173] Consider, again, the example of television formats, one of copyright's most controversial subject matters. Much like spoken languages, popular television formats are important communication tools: their rules and conventions are a reference point, which creators and viewers can both rely on. They frame particular programs in familiar contexts, and allow their audience to dedicate greater attention to the particular episodes.[174] They reduce complexity.

These complexity reduction attributes imply that access to all these subject matters can be particularly important for users, competitors, and second-generation authors, which, in turn, warrants narrower copyright protection. The lens of complexity, then, sheds new light on copyright's reluctance to fully protect them.

It should, perhaps, be clarified that I am not arguing that the different subject matters discussed in this section should always be completely denied copyright protection.[175] The important point for the current discussion is that, much like in trademark law, copyright law *already* implicitly recognizes complexity reduction considerations. Bringing them to the fore provides a deeper understanding of the doctrinal position and can increase its coherence.

So far we have seen how complexity can affect the design of norms in the field of IP, or illuminate existing doctrines. Yet, the contribution of complexity is neither confined to this type of discourse, nor to solving particular intellectual property dilemmas. A complexity perspective can also affect the meta-narratives of intellectual property theory. The following Part explores this influence.

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[172] *Supra* notes 132–134 and accompanying text; LUHMANN, *supra* note 121, at 84–86 (discussing the complexity reduction attributes of "schematism").

[173] *Id.*

[174] NICHOLAS ABERCOMBIE, TELEVISION AND SOCIETY 41 (1996). For a detailed discussion of the communicative attributes of television formats, *see* Shur-Ofry, *Genre*, *supra* note 162, at 26–28.

[175] Elsewhere I offer a fuller analysis of the desired scope of protection of specific subject matter. *See* Shur-Ofry, *Databases*, *supra* note 170, at 316, 332–335 (discussing the "protection of database selections and arrangements"); Shur-Ofry, *Genre*, *supra* note 162, at 3–5 (discussing the protection of cultural patterns); *cf.* Shur-Ofry, *Popularity*, *supra* note 35, 529–30, 535, 545 (arguing that the popularity of a copyright protected subject matter is relevant in this context).

IV. COMPLEXITY AND IP NARRATIVES: THE MYTH OF LINEARITY

A. Incentives and the Linearity Paradigm

Incentive has been the prominent paradigm in US intellectual property law for past centuries.[176] According to conventional wisdom, granting exclusive rights in the form of copyright or patents is a primary means for incentivizing inventions and creations and for overcoming public good and free riding problems.[177] Conventional wisdom also holds that the grant of exclusive rights entails social costs. The exclusionary basis of intellectual property rights hinders second-generation creators, users, and competitors that require access to IP protected subject matter.[178] Hence, intellectual property policy under the incentive paradigm should aspire to design IP rights–as well as the exceptions and limitations to such rights–in a manner which

[176] U.S. CONST. art. I, § 8, cl. 8 (empowering Congress to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Rights to their respective Writings and Discoveries," which is the root of the incentive paradigm).

[177] *See generally* LANDES & POSNER, ECONOMIC STRUCTURE, *supra* note 84, at 20. For analysis of copyright in terms of incentives, *see, e.g.*, Shyamkrishna Balganesh, *Foreseeability and Copyright Incentives*, 122 Harv. L. Rev. 1569, 1577 (2009); Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 323–28 (1970); William Landes & Richard Posner, *An Economic Analysis of Copyright Law*, 18 J. LEG. STUD. 325, 326, 332 (1989) [hereinafter Landes & Posner, *Economic Analysis*] (analyzing copyright in terms of incentives); William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1659 (1988). For similar incentive analysis of Patent Law, *see, e.g.*, Kenneth W. Dam, *The Economic Underpinnings of Patent Law*, 23 J. LEGAL STUD. 247, 255–57 (1994); Yusing Ko, *An Economic Analysis of Biotechnology Patent Protection*, 102 YALE L.J. 777, 791–93 (1992). Notably, incentive theory is also used to justify additional intellectual property rights, beyond patents and copyright, *see, e.g.*, LANDES & POSNER, ECONOMIC STRUCTURE, *supra* note 177*,* at 168 (discussing incentives in trademark law).

[178] LANDES AND POSNER, THE ECONOMIC STRUCTURE, supra note 84, at 21–23 (discussing the cost-benefit tradeoff in intellectual property protection); Landes & Posner, *Economic Analysis*, *supra* note 177, at 332–33; BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 75 (1968).

would achieve an optimal balance between incentive and social costs, or, as commonly phrased, between incentive and access.[179]

There is a significant, though implied, linearity assumption underlying the incentive-access premise. The paradigm assumes a direct cause-effect connection between the level of incentive, reflected by the scope of IP protection, on the one hand, and the level of innovation, on the other hand.[180] In other words, under the linearity-premise, broader and stronger intellectual property rights provide greater incentive, which is bound to lead to increased technological innovation and extended cultural production, and vice-versa. Therefore, legal reforms designated to increase the scope of intellectual property rights–such as extending the term of patent protection or extending copyright's duration–are commonly justified as necessary means for spurring and increasing innovation.[181]

Moreover, according to this line of thought, each and every proposed limitation to the scope of intellectual property protection immediately raises anxieties about harming incentives and reducing innovation. A few non-exhaustive illustrations are the concerns that amendments to the Hatch-Waxman Act will disincentivize the generic

[179] *See, e.g.,* LANDES & POSNER, ECONOMIC STRUCTURE, supra note 84, at 66 (explaining that "[t]he efficient level of [copyright] protection is found at the point at which the social benefits from further protection equal the social costs"); Bangalesh, *supra* note 177, 1571(discussing the incentive-access balance in copyright law); Richard Gilbert & Carl Shapiro, *Optimal Patent Length and Breadth,* 21 THE RAND J. OF ECON. 106 (1990) (discussing the optimal design of patents from a social welfare perspective).

[180] Balganesh, *supra* note 177, at 1579–80 (noting that under the prevailing view of courts and policy makers, "the incentive provided by copyright's promise of exclusivity is also thought to correlate directly with the overall production of creative expression"); Jessica Litman*, War Stories*, 20 CARDOZO ARTS & ENT. L.J. 337, 344 (2002) (noting that economic analysis of copyright is based on a linear model which presumes that "an increase in copyright protection will lead to the production of more or better works of authorship"); *cf.* Murray Lee Eiland, *The Role of the Individual Inventor in Pharmaceutical Patents,* 18 U. BALT. INTELL. PROP. L.J. 1, 34–35 (2009) (identifying critically a similar linearity assumption in the field of patents in the pharmaceutical industry).

[181] *See, e.g.*, Bangalesh, *supra*, note 177, at 1579-80; Litman, *supra* note 180, at 344.

industry and reduce innovation on part of generic drug companies;[182] that the adoption of a European-like experimental use defense in patent law will reduce innovation;[183] and, that extending copyright's fair-use doctrine to personal video recorders will decrease the incentives to create and broadcast television programs.[184]

Several scholars have criticized this approach as prescribing ever-expansive intellectual property rights.[185] But, interestingly, the linearity premise is not confined to IP maximalists. Assumptions of linearity seem to underlie many proposals to *limit* the scope of intellectual property protection. Such proposals often maintain that narrowing intellectual property rights would decrease the social costs and externalities produced by the IP system, or would promote socially desirable values. Thus, for example, proposals to limit the scope of copyright assume a causal connection between such limitation and the desired outcomes of decreasing the cultural domination of mass media products and increasing the audience's interest in diverse cultural

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[182] Andrew Berks, *Antitrust Aspects of the "Access to Affordable Pharmaceuticals" Act: Incentives for Generics Out the Window?*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1305, 1306-07, 1333 (2006). The Hatch-Waxman Act introduced a new incentive to generic pharmaceutical firms in the form of a quasi-intellectual-property-right, while the amendments discussed in Berk's article imposed potential antitrust liability on generic companies. *Id.*

[183] Norman Siebrasee & Keith Culver, *The Experimental Use Defence to Patent Infringement: A Comparative Assessment*, 56 U. TORONTO L.J. 333, 369 (2006) (examining the European experimental use defense and concluding that, overall, adoption of this approach is "likely to reduce innovation").

[184] Maribel Rose Hilo, *TIVO and the Incentive/Dissemination Conflict: The Economics of Extending Betamax to Personal Video Recorders*, 81 WASH. U. L.Q. 1043, 1066 (2003).

[185] Bangalesh note 177, at 1581 (noting that under the linear model copyright is intrinsically "limitless"); Litman, *supra* note 180, at 344 (describing copyright as a "one way ratchet"). *See also* Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 306–24 (1996) (attributing expansive copyright to the neo-classical liberal theory); *cf.* JULIE COHEN, CONFIGURING THE NETWORKED SELF: LAW, CODE, AND THE PLAY OF EVERYDAY PRACTICE 72-73 (2012) (noting that copyright's internal narrative which regards progress as "a linear motion towards enlightenment" is anachronistic in light of contemporary social theory).

consumption.[186] Similarly, calls for limiting the scope of trademark protection implicitly assume the existence of a cause-effect relation between such limitation and the outcome of discouraging consumerism.[187] Likewise, proposals to expand copyright's fair-use doctrine assume that introducing this measure will promote progress and minimize the social costs that result from an expansive copyright regime.[188]

As part of its linearity premise, and consistent with conventional economic analysis, intellectual property theory adopts a reductionist approach, which perceives individuals and firms as independently responding to the IP regime and its set of incentives. According to this perception, if we only obtain sufficient information about these agents, we would be able to design our IP system to achieve an ideal level of social welfare: optimum incentives, minimum externalities.[189]

B. A Complexity Outlook

Complexity theory, as some readers may have guessed by now, provides a different outlook on these IP narratives. IP and its protected subject matter are intertwined in a multitude of economic and social systems.[190] These systems are comprised of innumerous interconnected individuals, firms from different industries, agents, authors, inventors, and users that together form complex dynamic

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[186] *See, e.g.*, NEIL WEINSTOCK NETANEL, COPYRIGHT'S PARADOX, 38–41, 135–40 (2008) (arguing that reducing copyright protection would open the bottleneck and weaken the domination of mass-media formulaic works); Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, 19 BERKLEY TECH. L. J. 785, 797–801 (2004) (arguing that limiting overly broad copyright protection would decrease the cultural domination of mass media); *cf.* Shur-Ofry, *Complexity*, *supra* note 21, at 6 (criticizing these assumptions).

[187] *Cf.* Katya Assaf, *Brand Fetishism,* 43 CONN. L. REV. 83, 148 (2012) (arguing that trademark law should "take steps to demystify brands").

[188] *See, e.g.*, Joshua N. Mitchell, *Promoting Progress with Fair Use*, 60 DUKE L.J. 1639, 1670–71 (2011).

[189] *See* the literature cited *supra* note 179 and accompanying text.

[190] *Supra* notes 22 & 23 and accompanying text.

networks.[191] The introduction of incentives and reforms in the field of intellectual property is therefore an introduction of stimuli into complex systems; and one of the prominent attributes of such systems is their *non-linearity*.[192]

In fact, non-linearity has long been recognized as one of the defining properties of complex systems, including the social and economic systems into which IP incentives are introduced.[193] Non-linearity implies that complex systems do not exhibit simple cause-effect relations.[194] Their composing parts cannot be viewed in isolation, since their interactions can greatly influence the overall effect upon the system.[195] Therefore, a stimulus (in our case, an incentive or an IP reform) introduced into a complex system does not necessarily trigger a proportionate response on the part of the system. The specific network topology, the interactions between the "players", the precise influence they exert on each other, and other factors, which may be minuscule or random, can all yield vast differences in the

[191] WATTS, OBVIOUS, *supra* note 8, at 161, 252 (discussing the multitude of complex systems comprising social and economic life); *cf.* J.B Ruhl, *Law`s Complexity: A Primer*, 24 GA. ST. U. L. REV. 885, 888 (2008) (discussing law as a complex system while observing that the economic system with which it interacts is itself a complex system).

[192] MITCHELL, *supra* note 3, at 22.

[193] *See* Ilya Prigogine & Peter M. Allen, *The Challenge of Complexity, in* SELF ORGANIZATION AND DISSIPATIVE STRUCTURES: APPLICATIONS IN THE PHYSICAL AND SOCIAL SCIENCES 7 (Willam C. Schieve & Peter M. Allen, eds. 1982) (noting that "nonlinearities clearly abound in social phenomena"); GIACS, COMPLEXITY, *supra* note 2, at 10–11 (proposing definitions of complexity); Granovetter, *Threshold Models*, *supra* note 35 (demonstrating that individual properties cannot explain collective social behavior). *See also* the discussion in Part I, *supra,* notes 44-46 and accompanying text.

[194] Nowotny, *supra* note 18, at 16 ("[g]one too is the belief in simple cause-effect relations"); Urry, *supra* note 12, at 4 (observing that similar causes may result in entirely different effects); *cf.* NASSIM NICHOLAS TALEB, ANTIFRAGILE 7 (2012) (explaining the notion of non-linearity complex systems).

[195] MITCHELL, *supra* note 3, at 22; ILYA PRIGOGINE, THE END OF CERTAINTY 45 (1996) [hereinafter PRIGOGINE, CERTAINTY] (noting that persistent interactions in complex systems mean that the individual particles cannot be considered in isolation); Anderson, *supra* note 12, at 93–94.

system's overall response.[196] The same "cause"– *i.e.*, incentive, or reform–may therefore result in different overall effects.

Non-linearity comes hand in hand with *unpredictability*. The dynamics of complex systems suggest that even with perfect knowledge of the individuals comprising the system and their properties, or preferences, our ability to predict the system's overall response to incentive is limited.[197] In other words, in complex systems, accurate prediction often lies beyond reach.[198]

These insights shed new light on prevailing IP narratives. They clarify that changes in IP's set of incentives will not necessarily yield linear responses. The expectations that each increase in the scope of IP will lead to a proportionate increase in the level of innovation; that each limitation of that scope will result in a corresponding decrease in innovation; or that we can promote external socially desired values simply by limiting or calibrating the scope of intellectual property protection–are unrealistic.

Rather, in some cases, changes in the IP regime may have no or little effect on the level of innovation or on the entailed social externalities.[199] In other instances, the opposite may be true, and the effect of an IP reform may be greater than anticipated or yield significant unexpected results. This latter observation is reminiscent of the "law of unintended consequences," long recognized in social

[196] WATTS, OBVIOUS, *supra* note 8, at 78–81,143 (demonstrating how the interactions between individuals magnify tiny random fluctuations to produce different outcomes).

[197] MITCHELL, *supra* note 3, at 19-23 (explaining that non-linear systems do not equal the mere sum of their parts); WATTS, OBVIOUS, supra note 8, at 252 (observing that collective behavior may not be derivable from individual attributes or incentives "no matter how much you know about them"); Nadav Shnerb, *Complexity and Liberty: On Fortune, Social Engineering and Everything in Between*, 9-12, *available at* http://woland.ph.biu.ac.il/uploaded/670.pdf (explaining the potential substantial effect generated by randomness in complex systems).

[198] MITCHELL, *supra* note 3, at 20 (noting that the understanding of chaos "laid to rest the hopes for perfect prediction"); WATTS, *supra* note 8, at 148, 162, 171 (highlighting the limits of accurate prediction of the behavior of complex systems).

[199] *Cf.* Beebe, *Sumptuary Code, supra* note 91, at 886–87 (2010) (arguing that anti-dilution protection should be dismantled in order to moderate the appeal of relative goods, but acknowledging that the effect of such reform may not be significant).

studies.[200] One example of such unexpected effect may be the Digital Millennium Copyright Act.[201] In an effort to fight piracy in the digital age, the Act introduced a set of anti-circumvention provisions that prohibit the circumvention of technologies protecting copyright works.[202] Several scholars maintain that this reform yielded a variety of unintended consequences, since these provisions, designed to target pirates, are frequently used against consumers, scientists, and legitimate competitors.[203] In yet other cases, a more proportionate and linear response to an IP incentive may emerge. One such example may be the Hatch-Waxman Act, which introduced a new incentive to generic pharmaceutical firms in the form of a quasi-intellectual-property-right.[204] In any case, my purpose here is not to evaluate the effect of any specific IP incentive or reform, but rather to emphasize that often we may be unable to anticipate which of the different possible scenarios will materialize. At the very least, the accuracy of predictions regarding the effect of incentives and reforms in our IP regime should not be taken for granted.

To some extent, this non-linear perspective is reminiscent of the doubts expressed in recent scholarship about the necessity of

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[200] *See generally* Robert K. Merton, *The Unanticipated Consequences of Purposive Social Action*, 1 AM. SOC. REV. 895, 899–901 (1936). *See also* Rob Norton, *Unintended Consequences*, CONCISE ENCYCLOPEDIA OF ECONOMICS – *available at* http://www.econlib.org/library/Enc/UnintendedConsequences.html.

[201] Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified as amended at 17 U.S.C. §§ 1201-1205 (Supp. 1998)) (amended by 17 U.S.C.A. §§ 1201- 1204 (West Supp. 2000))**.**

[202] *See id*.

[203] *See* Jacqueline Lipton, *The Law of Unintended Consequences: The Digital Millennium Copyright Act and Interoperability*, 62 WASH. & LEE L. REV. 487 (2005); Fred Von Lohmann, *Unintended Consequences: Twelve Years under the DMCA*, THE ELECTRONIC FRONTIER FOUNDATION, *available at* https://www.eff.org/wp/unintended-consequences-under-dmca.

[204] 21 U.S.C. § 355 (2006). Empirical research demonstrates that the Act indeed encouraged generic firms to challenge patents registered by "brand-name" pharmaceutical companies, which in turn results in earlier generic entry to the market. *See* C. Scott Hemphill & Mark A. Lemley, *Earning Exclusivity: Generic Drug Incentives and the Hatch Waxman Act*, 77 ANTITRUST 947, 948–49 (2011) (analyzing the generic exclusivity provisions under the Hatch-Waxman Act); C. Scott Hemphill and Bhaven N. Sampart, *When Do Generics Challenge Drug Patents* 1, 3, 14 (2010), *available at* http://ssrn.com/abstract=1640512 (presenting empirical evidence that the number of patent challenges following the Act's introduction has dramatically increased).

incentives in patent, copyright, and trademark law.[205] This literature observes that many inventions, brands, and works of culture would have been created, even in the absence of intellectual property protection, for various reasons.[206] It further clarifies that, at the individual level, too, innovation and creativity are not linear processes, but are influenced by a multiplicity of factors. It also illustrates the complexity of the systems in which inventions and works of culture are created, and the plethora of forces and stimuli that exist within such systems. Yet, the non-linear outlook offered here does not imply that all incentives are superfluous, as more fully explained below.

In addition to its insights on incentive, non-linearity provides a more realistic perspective of the Lockean narrative in IP theory. Lockean justifications generally perceive intellectual property rights as a just reward for the contribution and investment of creators and inventors.[207] The discussion in Part II demonstrates that the correlation between investment, labor, contribution, and other intrinsic factors, on the one hand, and success and reward, on the other hand, is also nonlinear.[208] The labor and investment expended by the most successful creators or inventors is not necessarily greater than the labor and investment of others, whose creations and inventions did not

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[205] *See, e.g.*, Mark Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. Rev. 709 (2012) (examining the necessity of incentives in the field of technological innovation); Dianne Leenheer Zimmerman, *Copyrights as Incentives: Did We Just Imagine That?*, 12 THEORETICAL INQUIRIES IN LAW 29 (2011) (discussing incentives in copyright law); Jonathan M. Barnett, *Shopping for Gucci on Canal Street: Reflections on Status Consumption, Intellectual Property, and the Incentive Thesis*, 91 VA. L. REV. 1381 (2005) (evaluating the incentive rationale with relation to fashion-brands).

[206] Lemley, *supra* note 205, at 714 (demonstrating that many technological solutions appear simultaneously and are influenced by ripe technological environment, thus doubting the necessity of patents for technological progress); Zimmerman, *supra* note 205, at 42–47 (discussing the existence of multiple motivations for creation, focusing particularly on intrinsic factors); Barnett, *supra* note 205, at 1420–21 (arguing that the incentive rationale has limited applicability in status-goods markets).

[207] JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT (1690), GUTENBERG PROJECT, *available at* www.gutenberg.org/etext/7370. For a discussion of Lockean theory in contemporary writing in the field of intellectual property, *see, e.g.*, Wendy Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA. L. REV. 149, 167 (1992); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 296–330 (1988).

[208] *See* the discussion in Part II *supra* notes 32-47 and accompanying text.

obtain extraordinary success. It is therefore unrealistic to expect that the reward that results from intellectual property rights will *accurately* reflect the level of investment or contribution by authors and inventors in each specific case.

Yet, discarding the myth of linearity should not lead to discarding IP narratives altogether. I am *not* arguing that everything is arbitrary or that incentives, rewards, or IP reforms are all meaningless. The implications of the above analysis on IP theory are more nuanced and require careful consideration. Although social and economic systems do not respond to incentives in a linear and predictable manner, a certain positive connection between cause and effect, effort and reward, or incentive and result, may still exist. The literature discussed in Part II reinforces this latter point. Large-scale empirical experiments found a certain positive correlation between intrinsic qualities and success in a complex environment.[209] On the other hand, this correlation was not simple and linear, and grew weaker when social influence became stronger.[210] Furthermore, despite the unpredictability embedded in complex systems, science indicates that, in some cases, certain evaluations may still be possible and valuable.[211] Non-linearity, then, does not equal complete randomness or chaos. To use an illustration proposed by physicist Nadav Shnerb, a piece of paper thrown off a roof into a storm may seem to move with entire randomness on small time scales, but will most certainly hit the ground in the long run.[212] Thus, the exact and immediate influence of a certain incentive or IP reform may well be impossible to predict. Yet, incentives can still have a more general impact, and generate drifts in desired directions.[213]

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[209] Part II *supra* notes 42–47 and accompanying text.

[210] Herdagdelen & Bingol, *supra* note 32, at 281; Salganik et. al, 2006*, supra* note 32, at 854–55.

[211] WATTS, OBVIOUS, *supra* note 8, at 213 (discussing the limitation of predictions in complex systems, but noting that it is sometimes possible to predict odds, rather than certainties). As Watts explains, further research is required to more accurately identify the limits of prediction in different circumstances. *Cf.* ALBERT-LÁSZLÓ BARABAÁSI, BURSTS: THE HIDDEN PATTERN BEHIND EVERYTHING WE DO 197–98 (2010) (discussing the limits of prediction of human behavior).

[212] Shnerb, *supra* note 197, at 19 ("eventually gravity has its say").

[213] *Cf.* WATTS, OBVIOUS, supra note 8, at 51 (noting that people do respond to financial reward in *some* manner).

In other words, the lesson of non-linearity is that on the one hand, it may be impossible to design IP norms that stand in accurate proportion to investment and contribution and to calibrate the IP system to an optimal equilibrium, but on the other hand incentives and rewards still matter in a rough and inherently inaccurate manner.

This analysis reinforces existing criticisms of the "optimal equilibrium" ideal in the field of intellectual property. Thus, for example, economist Joan Robinson argued more than half a century ago that an ideally beneficial patent system is unobtainable.[214] Jessica Litman indicated that the incentive model may be treated not as an accurate description of reality, but as a "useful rhetorical device."[215] Wendy Gordon observed that "incentives are not always and inevitably at risk when a positive externality goes un-internalized."[216] Jane Ginsburg maintained that copyright's social benefit rationale cannot be justified with respect to each work individually but only with respect to copyright as an overall system.[217]

Complexity supports these perceptions. It clarifies that a linear response should not be presumed as a default when attempting to anticipate the effect of specific incentives or reforms. It invites a more humble and self-reflective approach when evaluating the impact of IP rules. Indeed, these latter insights are not confined to the field of intellectual property but seem to concern law making and law reforms in a much more general manner, which exceeds the scope of this article.[218] Focusing on IP, I argue that the message of complexity, though sobering, is not a deterministic one. Non-linearity does not warrant abandoning IP rationales altogether. Nor does it call for ultra-complicated IP legislation that attempts to handle all the contingencies and complexities of our world. Rather, complexity carries an opposite

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[214] *See, e.g.*, JOAN ROBINSON, THE ACCUMULATION OF CAPITAL 87 (1956) ("there can be no such thing as an ideally beneficial patent system").

[215] Litman, *supra* note 180, at 344.

[216] Wendy Gordon, *Render Copyright unto Caesar: On Taking Incentives Seriously*, 71 U. CHI. L. REV. 75, 76 (2004) (making the argument in the context of demonstrating the significance of free receipts in copyright law).

[217] Jane Ginsburg, *Creation and Commercial Value: Copyright Protection of Works of Information*, 90 COLUM. L. REV. 1865, 1899–1900 (1990).

[218] For a recent discussion of the possible implications of unpredictability for the legal system in general, *see* Andrew Stumpff, *The Law is a Fractal: The Attempt to Anticipate Everything*, 44 LOYOLA U. OF CHI. L. J (forthcoming), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2157804.

message: it implies that IP justifications should be treated in a broad and rough manner and not as specific rules that can be accurately implemented in each and every particular case. It indicates that we should still strive to design a just and effective (though not "ideal") IP system, and it highlights the importance of common-sense and reasonableness while embarking upon this task.[219]

V. CONCLUSION

This article examined intellectual property from a complexity perspective, drawing on the multidisciplinary research of complex systems. Focusing on complexity as a *social* phenomenon and on the complex social and economic systems in which all IP protected subject matters are entrenched, the analysis suggests that complexity has a *general* significance for each and every area of intellectual property. It provides new tools for resolving specific IP questions, and a new prism for framing such problems and for questioning the fundamental narratives in this area. Viewing IP through the lens of complexity, then, offers a new conceptual toolkit. One that can deepen our understanding of intellectual property, enrich the theoretical discourse in this field, and bring intellectual property theory and doctrine closer to real-world settings.

Certainly, the analysis above did not explore all the possible implications of complexity for the field of IP. Notably, intellectual property law regulates and affects numerous complex systems in addition to the ones discussed above. These intersections, too, could benefit from a complexity perspective. Thus, for example, the current debate on patenting genes can benefit from the new understanding of the networked nature of the human genome.[220] The design of joint ownership rules in patent law may benefit from recent analyses of the patent citation networks that reveal the importance of teamwork in developing innovative technologies.[221] The general outlook this article offers will hopefully contribute to further investigation and research of the intersections between IP and complexity.

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[219] *See also* the concept of "satisficing" discussed in Part III, s*upra* notes 124-125 and accompanying text; *cf.* Nowotny, *supra* note 18, at 27 (discussing the importance of prudence and reasonableness as guiding principles in complex environments).

[220] MITCHELL, *supra* note 2, at 275.

[221] Stefan Wuchty, et al., *The Increasing Dominance of Teams in Production of Knowledge*, 316 SCIENCE 1036 (2007).

In his book *The End of Certainty*, Nobel laureate Iliya Prigogine describes a science "that is no longer limited to idealized and simplified situations but reflects the complexity of the real world. A science that views us and our creativity as part of a fundamental trend, present at all levels in nature."[222] I believe that basing our understanding of intellectual property on the science of complexity will benefit IP law and subject matter, as well as the complex social system in which they are entrenched.

[222] PRIGOGINE, CERTAINTY, *supra* note 195, at 7.

HACKERS AND HUMANISTS: TRANSACTIONS AND THE EVOLUTION OF COPYRIGHT[1]

REBECCA SCHOFF CURTIN

ABSTRACT

This article examines the way in which two transactions have influenced copyright culture and informed copyright policy, free software licenses in our own time and contracts for authors' rights starting in the sixteenth century. Often, a copyright holder uses contracts to increase the control it has over a work after distribution. In these two transactions, copyright holders opted for less control over the work than the then-current copyright regime allowed. The experience of sharing rights with other stakeholders in each of these cases played a role in changing ideas about how expressive works are best created and distributed. Though early copyright generally belonged to publishers, not authors, nascent contracts that gave authors some rights in their work aided in the rise of the idea of the author as the sole creator, and eventually the copyright holder, of literary works in print. Free software licenses have been at the forefront of a revolution turning in virtually the opposite direction, championing the value of collaboration and giving the user a role in continuing the life of an expressive work. Through comparative analysis of the history of each transaction, the article describes the conditions under which extraordinary transactions like these are likely to develop and how they help to change the fundamental assumptions that underlie

[1] The author wishes to express her gratitude to Zahr Said, Jessica Silbey, Richard Stallman, Kara Swanson, Rebecca Tushnet, the participants of the Northeastern Law Faculty Colloquium and the attendees of the Works in Progress IP Conference at Seton Hall University School of Law for their helpful comments on earlier drafts of this article, to the editors of the journal for their very careful work bringing the manuscript to print, and to Elizabeth Abbate for her research assistance.

copyright protection. The analogy between the contracts for authors' rights and free software licenses over time suggests that we are in the midst of a rise of the collaborative user every bit as important to the culture of copyright as was the rise of the author.

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I. INTRODUCTION

Virtually since its inception in the sixteenth century, copyright, or broadly speaking, the exclusive right to publish, has gone hand-in-hand with contractual agreements regarding the division of that right and the distribution of copyrighted works. The copyright license is as

old as copyright itself.[2] The terms of copyright licensing transactions control the rights of the parties with respect to the work covered by the contract, but, more than that, transactional norms exert influence on the culture of copyright, the beliefs we have, and the conventions we follow regarding how best to facilitate the creation and consumption of expressive works.[3] Changes in the culture of copyright can and sometimes do cause stakeholders to advocate for changes in the law. In the mean time, the parties working under contractual agreements experience the production and use of expressive works under a transactional alternative to the legal copyright regime, an experience that can radically inform our sense of how to achieve "progress in the Arts and Sciences."[4]

Often, this relationship between copyright and contract has been controversial. For instance, in the last twenty years, the proliferation of "shrink- or click-wrap" licenses and "terms of use"

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[2] FREDRICK SEATON SIEBERT, FREEDOM OF THE PRESS IN ENGLAND: 1476–1776 79 (1952). Siebert cites a number of early deals in which copyright was "sold, exchanged, assigned, subdivided, released by one partner to another or settled in trust". *Id; see also infra* note 80 and accompanying text.

[3] For a discussion of this phenomenon in the context of shrink-wrap licenses*, see* Michael J. Madison, *Legal-Ware: Contract and Copyright in the Digital Age*, 67 FORDHAM L. REV. 1025, 1029–32 (1998).

[4] For instance, "securing for limited times to Authors . . . the exclusive right to their Writings" only makes sense as a method of "promot[ing] the Progress of Arts and Sciences" if you believe that authors are the key to the production of writings. U.S. CONST. art. I, §8, cl. 8. In the sixteenth century, the author would not necessarily have been thought of in this way. Many of the texts most sought after were either without a single author or by authors who were long since dead (such as the Bible and classical works from Greek or Roman schools of thought). Even the conception of what an author did to produce a work involved much more in the way of compilations of existing material than the creative contributions of an "original genius." For Early Modern conceptions of the author as something other than "distinctly and personally responsible for his creation", opposed to the idea of the "original genius*," see* Martha Woodmansee, *The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the 'Author'*, 17 EIGHTEENTH-CENTURY STUDIES 425, 426–27 (1984). What was needed to promote progress under those assumptions was to incentivize the *distribution* of existing works (rather than the *creation* of new ones), so perhaps it is unsurprising that sixteenth-century forms of copyright were generally given to printers and publishers, not authors. But the experience of sixteenth-century printers attempting to get authors (which of course included translators and editors of those classical works) to sell their works to printers via transactions, I argue here, helped to change those assumptions. The author's place in the market for works helped to seal his place in copyright policy. *See infra* text accompanying notes 86–128, 200–217.

attached to digitized works has garnered significant concern that their scope has harmful effects, including the substitution of private ordering for the public policy enshrined in copyright law, the erosion of free access to the public domain, and the steady desiccation of conventions regarding fair use and the limitations of copyright protection.[5] In response to *ProCD v. Zeidenberg*,[6] the first case confirming the enforceability of shrink-wrap license provisions that limited the use of information in the public domain, some commentators called for principled application of federal preemption doctrine to prevent "fundamental copyright balances" from being "subject to private reordering under state contract law."[7]

In the long history of the relationship between copyright and contract, however, transactions have not always pushed for expansion of the rights of the copyright holder. This Article draws an analogy between two kinds of transactions that have proved very influential by sharing the rights of the copyright holder with other parties: nascent contracts for authors' rights starting in the sixteenth century and free software licenses in our own time. Each of these transactions played a role in a profound change in the culture of copyright relating to the expressive works in question, by allowing the parties to experiment with dispositions of copyright that differed from the legal norm. Nascent contracts for authors' rights aided in the rise of the idea of the author as the sole creator, and eventually the copyright holder, of literary works in print. Free software licenses have been at the forefront of a revolution turning in virtually the opposite direction, a revolution that champions the value of collaboration and gives the user a role in continuing the life of an expressive work. Martha Woodmansee has observed that it is "in the interplay of two levels [the legal-economic and the esthetic] that critical concepts and principles as fundamental as that of authorship achieved their modern form."[8] Transactional experience plays as crucial a role in this nexus as

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[5] *See* Madison, *supra* note 3, at 1230–33; *see also* Niva Elkin-Koren, *Copyright Policy and the Limits of Freedom of Contract*, 12 BERKELEY TECH. L. J. 93, 109 (1997); Viva R. Moffat, *Super-Copyright: Contracts, Preemption, and the Structure of Copyright Policy-making*, 41 U.C. DAVIS L. REV. 45, 47–50 (2007).

[6] 86 F.3d 1447 (7th Cir. 1996).

[7] Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-line Licenses*, 22 U. DAYTON L. REV. 511, 512 (1997); *see also*, Moffat, *supra* note 5, at 49, 87.

[8] Woodmansee, *supra* note 4, at 426–27.

statutory or common law regimes.[9] This Article provides a close-grained comparison of the early contractual arrangements that presaged the rise of the English author and free software licenses, which now embody a new-old spirit of common creation that challenges what is left of the author's supremacy. Each of these transactions departed in significant ways from the then-current copyright regime.

Modern copyright generally works on the assumption that giving creators of expressive works the ability to exclude others from (and therefore extract value for) copying, distributing, or modifying the work will incentivize the creation of more expressive works. By contrast, some free software licenses, such as the GNU General Public License (GNU GPL), use "copyleft" provisions to ensure that users receiving the software cannot be excluded from the right to copy, distribute, and modify the software or any derivative works based on it.[10] The assumptions underlying the free software ethos are that inclusion of downstream users in the effort to distribute and modify software will facilitate the creation of better software, and that creators in software development communities are impeded, rather than incentivized, by the ability to exclude, because the creation of the community ethic itself is impeded by exclusion.[11] The first version of the GNU GPL was drafted in the late 1980s, primarily by the eminent hacker, Richard Stallman, in consultation with a community of fellow software developers and the lawyers who had helped him to form the

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[9] For instance, Martha Woodmansee, primarily dealing with conditions in Germany and England in the eighteenth century, explores a transactional experiment on the part of German poet Friedrich Gottlob Klopstock to create a direct market for his works by subscription, as well as a public debate on whether the law should prohibit "unauthorized reproduction of books." *Id.* at 440–43. Joseph Loewenstein has made a similar observation with respect to the development of the idea of a literary work: "The development of such an abstract notion of literary work was a slow process: it depended on—among other things—the expansion of authorial rights within the seventeenth-century literary market." Joseph Loewenstein, *The Script in the Marketplace*, 12 REPRESENTATIONS 101, 102 (1985). For an example of an exploration of landmark litigation's role in the rise of the author, *see* Mark Rose, *The Author as Proprietor:* Donaldson v. Becket *and the Genealogy of Modern Authorship*, 23 REPRESENTATIONS 51, 58 (1988).

[10] RICHARD STALLMAN, *The GNU Project*, FREE SOFTWARE FREE SOCIETY: SELECTED ESSAYS OF RICHARD M. STALLMAN 22 (J. Gay, ed., 2002).

[11] *Id.* at 17–19.

Free Software Foundation.[12] The license was born out of a hacker culture that valued the freedom to work with software, the ethics of sharing, and the power of "peer production."[13] Since that time, many forms of free and open source software licenses[14] have proliferated. When the Federal Circuit's August 2008 decision in *Jacobsen v. Katzer*[15] gave a judicial seal of approval to the enforcement of an open source software license on the basis of copyright law, the decision merely capped a long experience of community enforcement of such licenses that has indelibly marked the software industry[16] and challenged our assumptions about the relationship between copyright and innovation in the information age.[17]

Copyright in sixteenth-century England was generally uninterested in author's rights.[18] The two earliest forms of English copyright, the royal printing privilege and entry in the Stationers' Register, ordinarily conferred copyright (which was essentially the exclusive right to print a given work) on a printer or bookseller, but not on the author of the work.[19] The impetus behind this early form of copyright was the idea that the investment a printer or bookseller made in publishing a printed work required protection against lower-cost

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[12] For an account of the creation of GNU GPL v. 1, *see* SAM WILLIAMS AND RICHARD STALLMAN, FREE AS IN FREEDOM (2.0): RICHARD STALLMAN'S CRUSADE FOR FREE SOFTWARE 123–29 (2010).

[13] Yochai Benkler, *Coase's Penguin, or, Linux and The Nature of the Firm*, 112 YALE L. J. 369, 381–84 (2002–2003).

[14] Following the usage of Yochai Benkler, in *Coase's Penguin, or, Linux and The Nature of the Firm*, the terms "free software" and "open source software" are used interchangeably in this article, but there is a subtle distinction between them in that "free software" focuses on the "political values" inherent in the movement, while "open source" focuses on the "economic significance." *Id.* at 371, n. 2. For a discussion of the distinction between these terms from the perspective of the free software movement, *see* STALLMAN, *supra* note 10, at 31–32.

[15] 535 F.3d 1373 (Fed. Cir. 2008).

[16] Richard E. Fontana, *Open Source License Enforcement and Compliance*, 27 THE COMPUTER AND INTERNET LAWYER 5, 5–7 (2010).

[17] *See generally* Benkler, *supra* note 13; STEVEN WEBER, THE SUCCESS OF OPEN SOURCE 4–5 (2004).

[18] Leo Kirschbaum, *Author's Copyright in England before 1640* 40 THE PAPERS OF THE BIBLIOGRAPHICAL SOCIETY OF AMERICA 43, 43 (1946).

[19] *Id.*

copying,[20] while the return on an author's investment in creating the work could be limited to whatever profit was possible with the initial sale of the manuscript.[21] There were, however, notable exceptions in which the Stationers' Register and the court of the Stationers' Company were used to enforce contracts that allowed authors to retain some control of the work after publication[22] or to participate in the

[20] For a brief introduction to the concept of stationer's copyright, *see* LYMAN RAY PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 42–45 (1968).

[21] The traditional view of the transaction that occurred between authors and stationers prior to publication understood the transaction as simply the sale of the manuscript as an object, Kirschbaum, *supra* note 18, at 43. However, Patterson argues that the initial sale must have been "more than the sale of a manuscript," since there is some minimal evidence that authors who had not sold their manuscripts could protest unauthorized publication, PATTERSON, *supra* note 20, at 68–69, 73. So, perhaps sale of the manuscript included a promise not to object to publication. The key point is that the initial sale occurs before copyright attaches to the work and in the typical transaction there appears to be no opportunity for the author to join in profit post publication.

[22] Patterson argues that the Stationers generally recognized the "personal" or "creative right" of authors to alter and revise their work exclusively. *Id.* at 71. Because written records of arrangements acknowledging such rights are rare, however, it is safer to argue, as I do here, that actual use of the Register and the courts to enforce such control of a work after publication represented real breakthroughs for authors, which deserve closer attention. I would agree with Patterson's observation, though, that "relations between the stationers and authors were cooperative rather than competitive." *Id.* at 66.

profit of reprints.[23] These contracts have been underappreciated as an important step in the evolution of authors' rights. The ability to negotiate and enforce rights in something more than the manuscript itself is a sign of the emergence of what has been called "the bibliographic ego," the "authorial identification with printed writing" in the Early Modern period that would eventually culminate in the recognition of authors as the holders of copyright in their works.[24] Like the hackers of the 1980s, humanist scholars in this period were on the leading edge of a changing culture.

In each of these cases, the copyright holder was motivated to contract around the ordinary assumptions of the then-current copyright regime regarding what support is necessary to facilitate the creation of expressive works. What makes these transactions extraordinary, as opposed to shrink-wrap licenses and more typical contractual responses to perceived gaps in copyright protection,[25] is that the transaction in these cases is a reaction to a perceived need of the creators of the works in question, which in each case resulted in the copyright holder opting for fewer rights in (or less control over) the work than the then-current copyright regime allowed. This Article

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[23] *See generally infra* text accompanying notes 84–126. Similarly, English monarchs of the sixteenth and seventeenth century occasionally conferred printing privileges on the authors of works, rather than on printers. In fact, the first such privilege was granted to an author, the great humanist Thomas Linacre. SIEBERT, *supra* note 2, at 35. I have argued elsewhere that the king's use of the privilege to benefit Linacre constitutes early recognition in the government that giving an author the power of monopoly in printing rights for a certain text was an effective tool to incentivize the production of those texts. Both of these developments, the recognition and incenting of authors, seem fundamental to the goals of copyright today, but at the time, copyright was primarily used to protect the profits of the infant printing industry. Rebecca Schoff Curtin, *The "Capricious Privilege": Rethinking the Origins of Copyright Under the Tudor Regime*, 59 J. COPYRIGHT SOC'Y U.S.A. 391, 391–435 (2012). The practice of occasionally conferring an author with initial copyright continued in a slightly different form following the Long Parliament, after which there are a few examples, primarily of sermons, bearing a colophon acknowledging that the House of Commons has granted a printing monopoly of limited duration to the author (who then appointed a stationer to carry out the publication). *See* N. Frederick Nash, *English Licenses to Print and Grants of Copyright in the 1640s*, 4 THE LIBRARY 174, 177–79 (1982).

[24] JOSEPH LOEWENSTEIN, BEN JONSON AND POSSESSIVE AUTHORSHIP 1 *passim* (2002).

[25] For a sense of how commonly copyright holders use contracts to expand restrictions on copyrighted works in modern business practice*, see* Moffat, *supra* note 5, at 47, 56–65.

will refer to these transactions as "alternative" transactions, in the sense that they are both transactional alternatives to the ordinary copyright regime and that the transactions themselves are atypical. In each case, these transactions took advantage of existing enforcement mechanisms to alter the disposition of rights in the work, demonstrating the power of alternative transactions to account for stakeholders—authors in the case of stationer's copyright and users in the case of modern copyright—who are under-recognized by the law. Each of these transactions was responsive to a need in the market for these works.

This Article begins by exploring the qualities of each alternative transaction, demonstrating how each transaction departs from the underlying copyright regime in some sense, how each transaction uses the enforcement mechanisms of that regime to recognize stakeholders other than the copyright holder, and how each transaction was responsive to the market for the expressive work. Next, the Article considers why each of these alternative transactions developed. What changes, to culture, technology, or marketplace, incent the creation of alternative copyright transactions? The common conditions shared by the development of both alternative transactions described in this Article suggest that transactions like these are likely to emerge: 1) if, in the wake of a new technology, the application of existing copyright law begins ambiguously, with respect to the works produced with the new technology, and then settles in the favor of a particular regime; 2) if that settled copyright regime impedes production of the works in question; and 3) if there is a growing awareness on the part of creators that they need a new kind of transaction in order to facilitate and compensate the creation of their work. The Article concludes with analysis of the influence of each alternative transaction on the culture of copyright.

In one important respect, the analogy is incomplete. In the case of author's rights, the alternative transaction was not only connected with a change in copyright culture, but also indicated the direction of the new legal default, in which copyright came to be granted to the author of a work. The future trajectory of the open source movement remains unclear. At this juncture, it is difficult to predict where an open source regime could become the norm in a market for expressive works. While the analogy here will focus on open source software licensing, as the *Jacobsen* opinion acknowledged, "open source licensing has become a widely used method of creative collaboration that serves to advance the arts and

sciences in a manner and at a pace that few could have imagined just a few decades ago," citing the Creative Commons' estimation that a hundred million works of authorship are licensed "under various Creative Commons licenses" alone.[26]

The commercial prevalence of open source licensing continues to grow. The sectors of the market dominated by software developed under free or open source licenses up until recently were not very visible to the ordinary consumer of software, who was more likely to buy a desktop computer packaged with a proprietary Windows or Apple operating system, for instance, than to operate with a GNU/Linux operating system at home.[27] Since then, open source software has flourished in ways that bring it ever more to the attention of the public. For instance, within a few months after the *Jacobsen* opinion, a consortium of companies known as the Open Handset Alliance, headed by Google, released the source code for the Android mobile device operating system under a form of free software license in order to harness the power of open source collaboration by both industry and amateur developers.[28] The Android Open Source Project has now put open source software into more than nine hundred million

[26] Jacobsen v. Katzer, 35 F.3d 1373, 1378 (Fed. Cir. 2008). It is important to note, however, that not all Creative Commons licenses are free licenses. For instance, some carry restrictions on the creation of derivative works. See the description of the CC BY-NC-ND license at http://creativecommons.org/licenses/.

[27] The market share of the Linux desktop OS has historically been very low, less than 2%, though in recent years it has grown. *See* Pingdom, *Linux is the world's fastest growing Desktop OS—up 64% in 9 months*, ROYAL.PINGDOM.COM (Feb. 28, 2012), http://royal.pingdom.com/2012/02/28/linux-is-the-worlds-fastest-growing-desktop-os-up-64-percent-in-9-months/.

[28] For a summary history of the Android Open Source Project*, see The Android Source* Code, ANDROID, http://source.android.com/source/index.html (last visited Nov. 18, 2013). For the estimated date of the first release of software by the Android Open Source Project*, see* Jean-Baptiste Quéru, *A brief history of AOSP*, GOOGLE+ (June 1, 2013), https://plus.google.com/112218872649456413744/posts/g8YnZh5begQ. For the form of license used for the code and an explanation of the choice*, see Licenses*, ANDROID, http://source.android.com/source/licenses.html (last visited Nov. 18, 2013).

devices[29] with a 64% share of the global smartphone market as of March, 2013.[30] Nonetheless, the open source software movement remains in an uneasy relationship with proprietary software development, which uses conventional application of copyright and patent law to limit the ability of users to distribute or change the software they buy.[31]

However, the tension between open source and proprietary software development differs in an important way from the conflict between the stationers' virtual monopoly in copyright and authors' rights. While the recognition of initial exclusive rights in authors could not have co-existed with the exclusive granting of copyright in printers, free and open source software licenses can co-exist with proprietary regimes. As we will see, as copyright licenses in general are given a wider scope of enforcement, free software licenses are also

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[29] As announced in a publicly shared post on Android's Google + account, dated May 15, 2013, https://plus.google.com/+android/posts. For background on Google's purchase of Android and subsequent purchase of Motorola*, see* Amir Efrati & Spencer E. Ante, *Google's $12.5 Billion Gamble*, WALL ST. J. (Aug. 16, 2011), http://online.wsj.com/article/SB10001424053111903392904576509953821437960.html.

[30] Ingrid Lundgren, *Android, Led by Samsung, Continues to Storm the Smartphone Market, Pushing a Global 70% Market Share*, TECHCRUNCH (July 1, 2013), http://techcrunch.com/2013/07/01/android-led-by-samsung-continues-to-storm-the-smartphone-market-pushing-a-global-70-market-share/?ncid=tcdaily.

[31] Within the Open Handset Alliance, Qualcomm has reportedly become reluctant to allow public release of its video drivers for developers to use in the Android Open Source Project, prompting the Google employee who was managing the project, Jean-Baptiste Quéru, to leave the role in apparent protest in August 2013. Jon Fingas, *Android Open Source Project Maintainer Leaves Role in Wake of Nexus 7 Open Source Issues*, ENGADGET (August 7, 2013), http://www.engadget.com/2013/08/07/aosp-maintenance-head-leaves-role-in-wake-of-open-source-issues. Android also faces resistance from competitors. Apple has recently cited a version of the Android operating system, Android 4.1, in a complaint in its ongoing lawsuit against Samsung, alleging that Samsung mobile phones that run on the Android operating system infringe patents held by Apple. *See* Joel Rosenblatt and Pam MacLean, *Apple Says Samsung's Galaxy Note, Jelly Bean Infringe Patent*, BLOOMBERG (Nov. 7, 2012), http://www.bloomberg.com/news/2012-11-06/apple-says-samsung-s-galaxy-note-jelly-bean-infringe-patents.html.

more likely to be enforced.[32] In that respect, free software licenses are able to manifest changes in copyright culture without requiring a change in the law.

II. THE MAKING OF ALTERNATIVE TRANSACTIONS

This section of the Article will outline each of the alternative transactions and its relationship with the copyright regime of its time. In each case, the focus will be to show that the alternative transaction: 1) departs from the conventional disposition of rights in the underlying copyright regime; yet, 2) uses the enforcement mechanism of the current regime to reserve rights for stakeholders other than the copyright holder; and 3) is responsive to the needs of the market for the expressive works concerned.

A. FREE SOFTWARE LICENSES AS ALTERNATIVE TRANSACTIONS

There are multiple licenses that could qualify as "free" or "open source" licenses. The definition of a free software license promulgated by the Free Software Foundation focuses on protecting the following freedoms for downstream users to:

- "run the program for any purpose,"
- "study. . . and adapt" the program to the users' needs (which requires access to the source code),
- "redistribute copies" so that users can "help [their] neighbors,"
- "improve the program and release [their] improvements to the public so that the whole community benefits" (which also requires access to the source code).[33]

These freedoms virtually map onto the exclusive rights of an author under copyright law. The United States copyright statute, for instance, confers on the author of a protected work the right to exclude others

[32] *See infra* text accompanying note 51. For an account of concerns arising from the nexus between broad enforcement of proprietary software licenses and open source software licenses*, see generally* Benjamin I. Narodick, Note, *Smothered by Judicial Love: How* Jacobsen v. Katzer *Could Bring Open Source Software Development to a Standstill*, 16 B.U. J. SCI. & TECH. L. 264 (2010).

[33] RICHARD STALLMAN, *Free Software Definition*, FREE SOFTWARE FREE SOCIETY: SELECTED ESSAYS OF RICHARD M. STALLMAN 41 (J. Gay, ed., 2002).

from reproducing, distributing, or preparing derivative works based on the copyrighted work.[34] Open source licenses use copyright law to ensure that downstream users will not be excluded from these activities. In Steve Weber's words, "open source radically inverts the idea of exclusion. . . . Property in open source is configured fundamentally around the right to distribute, not the right to exclude."[35]

1. "Intellectual Jujitsu": Including Users

Richard Stallman has argued that the GNU General Public License, the most prevalent free software license in use today, should be seen "as a form of intellectual jujitsu, using the legal system that software hoarders have set up against them."[36] The metaphor encapsulates the free software license's pugnacious relationship to the copyright regime, using the exclusive rights of the copyright holder to achieve results that look quite different from the usual enforcement of copyright. The need for such licenses grew out of a culture of sharing software within hacker communities that valued a software author's moral rights over the kinds of exclusive rights conveyed by U.S. copyright law.[37] For instance, in 1985, Larry Wall released trn, an early Unix utility, under a copyright notice reading simply "you may copy the trn kit in whole or in part as long as you don't try to make money off it, or pretend that you wrote it."[38]

A comparison between the license terms of the GNU General Public License, version 2 (the "GPLv2")[39] and the scope of license

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[34] 17 U.S.C. § 106 (2006).

[35] WEBER, *supra note* 17, at 16.

[36] WILLIAMS AND STALLMAN, *supra* note 12, at 128 (quoting a 1986 *Byte* magazine interview).

[37] WILLIAMS AND STALLMAN, *supra* note 12, at 126–27.

[38] *Id.* at 127.

[39] *GNU General Public License, version 2*, GNU, http://www.gnu.org/licenses/gpl-2.0.html (last visited Nov. 18, 2013) [hereinafter the *GPLv2*].

under the Microsoft Software License terms for Office 2007[40] immediately illustrates the difference between an open source license and an ordinary license for proprietary software. The scope of the license for Microsoft Office begins with the statement that "the software is licensed, not sold."[41] This statement invokes a line of copyright cases making the distinction between a sale and a license that have recently upheld broad interpretations of the kinds of limitations that software licenses can place on the licensees (but not buyers) of software, such as a prohibition against re-selling their copy of the software.[42] The scope of license then lays out a number of express restrictions, "you may not: work around any technical limitations in the software; . . . make more copies of the software than specified in this agreement . . . ; publish the software for others to copy; use the software in any way that is against the law; rent, lease or lend the software; use the software for commercial software hosting services."[43] The number of copies a user can make is restricted to one copy for use only to reinstall the software and another section makes clear that any software marked as "NFR" or "not for resale" cannot be sold.[44] The terms of use allow installation and use on only one licensed device and one portable device "for use by the single primary user of the licensed device."[45]

By contrast, the license terms for the GPLv2 begin permissively and follow with conditions that facilitate the

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[40] *Microsoft Software License Terms, 2007 Microsoft Office System Desktop Application Software*, MICROSOFT, http://www.microsoft.com/About/Legal/EN/US/IntellectualProperty/UseTerms/Default.aspx (last visited Nov. 18, 2013) (displaying the version cited is the license covering the software as sold from a store as packaged software for end users for Office Standard 2007 in English) [hereinafter the *Microsoft Office License*].

[41] *Id.* § 6.

[42] *E.g.*, Vernor v. Autodesk, Inc., 621 F.3d 1102 (9th Cir. 2010) (holding that the first sale doctrine does not apply to licensees of software); MDY Industries, LLC v. Blizzard Entertainment, Inc., 629 F.3d 928 (9th Cir. 2010) (holding that buyers of the World of Warcraft online game were licensees only, but that there was no copyright infringement liability attached to the use of a software bot in violation of terms of use, because there is no nexus between the use of bots and the exclusive rights of a copyright holder).

[43] *Microsoft Office License, supra* note 40, §7.

[44] *Id.* at §§ 8, 10.

[45] *Id.* at § 8.

collaborative use and development of the software. There are provisions allowing the right to copy and distribute the source code, even for a fee ("you may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium . . . . You may charge a fee for the physical act of transferring a copy").[46] There is a provision allowing the creation and distribution of derivative works ("you may modify your copy. . . and copy and distribute such modifications.").[47] Distribution of the software in executable form is also allowed ("you may copy and distribute the Program . . . in object code . . . .").[48] Each of these provisions, however, is conditional. Modification of the software and distribution of the derivative work is allowed only if "prominent notices" state "that you changed the files and the date of any change," the derivative work as a whole is licensed "at no charge to all third parties under the terms of this License [GPLv2]," and the program "print[s] or display[s]" appropriate notifications of copyright, disclaimer of warranty, and "that users may redistribute the program under these conditions, and telling the user how to view a copy of this License" (unless the program doesn't usually print such an announcement).[49] This last condition, known as a "copyleft" provision, ensures that any works based on GPL-licensed software will also remain free software.

In this way, a free software license, like a proprietary license, imposes conditions on its grant to the user of the exclusive statutory rights of the copyright holder. The key difference between the licenses is that the free software license, even as it imposes some conditions, gives the user a role in continuing the life of the software through copying, distributing, and modifying it. An ordinary proprietary license only allows the user to act as a "passive consumer" of the software.[50] In this sense free software licenses recognize the user as a kind of stakeholder in the expressive work. "Copyleft" licenses in particular enshrine that role for all downstream users by imposing the condition that all distributions remain open to user participation.

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[46] *GPLv2*, *supra* note 39, at §1.

[47] *Id.* at § 2.

[48] *Id.* at § 3.

[49] *Id.* at § 2.

[50] For the distinction between "users" and "passive consumers," *see* Benkler, *supra* note 13, at 562 & 564.

2. Jacobsen v. Katzer*: Using Existing Enforcement Mechanisms for Open Source*

Free software licenses have been held enforceable just as ordinary software licenses are. The first case upholding enforcement of a free software license, *Jacobsen v. Katzer*, belongs to the line of cases that enforce conditions on a grant of a copyright license with the remedies for copyright infringement, as opposed to limiting relief to the remedies for breach of contract.[51] The opinion dealt with the Artistic License, a very permissive form of open source license that, like many such licenses, allows unlimited copying and modification of the software, provided that "users copy and restate the license and attribution information" and "changes to the computer code [are] tracked."[52]

A right of attribution is not among the exclusive rights of a copyright holder, but the Court saw these provisions in the Artistic License as a limitation on the licensee's right to make modifications to (or to create derivative works of) the software.[53] The Court emphasized that "copyright holders who engage in open source licensing have the right to control the modification and distribution of copyrighted material."[54] As the Court observed, the enforcement of open source license terms as conditions to grants of copyright, as opposed to covenants in a contract, is critical because violation of open source license terms would not be likely to result in monetary damages.[55] Therefore, access to the statutory remedies and

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[51] The opinion in particular relies on Sun Microsystems, Inc. v. Microsoft Corp., 188 F.3d 1115 (9th Cir. 1999) and Graham v. James, 144 F.3d 229 (2d Cir. 1998) to draw the line between copyright infringement and mere breach of contract. The relevant statement of the rule in *Sun Microsystems, Inc.* is that the remedies of copyright enforcement are available as long as "the disputed terms are limitations on the scope of the license rather than independent contractual covenants." 188 F.3d at 1122. Applying the same rule in *Graham*, the Second Circuit found that a requirement for attribution and the payment of royalties were mere covenants and not conditions to a copyright license, but in that case the license was oral, the parties "did not clearly delineate [the license's] covenants and conditions," and "New York respects a presumption that terms of a contract are covenants rather than conditions." 144 F.3d at 237.

[52] Jacobsen, 35 F.3d at 1379.

[53] *Id.* at 1381.

[54] *Id.*

[55] *Id.* at 1382.

enforcement mechanisms of copyright ensures that the consequences of infringement are adequate to incentivize the enforcement of open source licenses.

It is worth noting that, on remand, the district court for the Northern District of California denied Jacobsen's motion for a preliminary injunction because Jacobsen "failed to proffer any evidence of any specific and actual harm suffered as a result of the alleged copyright infringement and he has failed to demonstrate that there is any continuing or ongoing conduct that indicates future harm is imminent."[56] The District Court applied a standard requiring these showings due to its reading of a Supreme Court case that came down after the Federal Circuit's ruling in *Jacobsen*, *Winter v. Natural Resources Defense Council*, 555 U.S. 7, 19–20 (2008).[57] *Winter* would appear to confirm the Federal Circuit's concern that the Ninth Circuit's rule—that irreparable harm is presumed in cases involving copyright infringement when the copyright holder has shown likelihood of success on the merits—is inconsistent with Supreme Court precedent following *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).[58] A lack of the presumption of irreparable harm might make it more difficult for open source licensors to gain preliminary injunctions. However, Jacobsen and Katzer have since reached a settlement, including damages and an injunction, that has been reported by legal practitioners and industry commentators as a victory for the open source movement.[59] So, in spite of the denial of a preliminary injunction, Jacobsen was able to press for a favorable

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[56] Jacobsen v. Katzer, 609 F. Supp 2d 925, 937–38 (N.D. Cal. 2009).

[57] *Id.* at 936.

[58] Winter v. Natural Resources Defense Council, 555 U.S. 7, 20–21 (2008). For the Federal Circuit's concern, *see* Jacobsen, 35 F.3d at 1378 (citing MGM Studios, Inc. v. Grokster, Ltd., 518 F. Supp. 2d 1197, 1212 (C.D. Cal. 2007)).

[59] *See* Mark Radcliffe, *Jacobsen and FOSS Community Win Big in* Jacobsen v. Katzer *Settlement*, LIFE & LAW: SILICON VALLEY (Feb. 19, 2010), http://lawandlifesiliconvalley.com/blog/?p=405; *Settlement Reached in Important Open Source Copyright Infringement Case*, WSGR (Feb. 23, 2010), http://www.wsgr.com/wsgr/Display.aspx?SectionName=publications/PDFSearch/wsgralert_jacobsen_katzer.htm; Andy Updegrove, *A Big Victory for F/OSS:* Jacobsen v. Katzer *is Settled*, CONSORTIUMINFO.ORG (Feb. 19, 2010, 9:45 AM), http://www.consortiuminfo.org/standardsblog/article.php?story=201002190850472. The settlement agreement, with all other key documents in the case, has been made available by JMRI. *JMRI Defense: Court Papers*, JMRI, http://jmri.sourceforge.net/k/docket/index.shtml (last visited September 28, 2013).

settlement, indicating that the prospects for enforcement of open source licenses remain strong.

3. The Open Source Spectrum: Responsiveness to the Needs of the Market

A final observation that is critical to the understanding of how free and open source licenses work is that these licenses are responsive to particular needs in the market. There is a wide spectrum of licenses from which free or open source software development communities may choose. Different communities will elect to distribute software under a particular license based on a complex matrix of values and practical needs, ranging from ethical concerns about whether derivative works should be allowed to become proprietary to more practical concerns about which licenses are most compatible with the licenses of software that might bundle with the new distribution.[60] There are three primary bodies of authority regarding the norms of licensing for such communities, the Free Software Foundation, the Open Source Initiative, and the Debian Project.[61] Each of these organizations promulgates standards by maintaining guidelines for evaluating the extent to which a license's provisions advance free or open source goals,[62] publishing lists of licenses that it considers to be "free" licenses,[63] or indicating which licenses are compatible with their projects.[64]

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[60] For a discussion of the range of attitudes a community of hackers might have with respect to proprietary software, *see* Eric Steven Raymond, *Homesteading the Noosphere*, CATB, 3–4, (Feb. 8, 2010, 9:02 AM), http://catb.org/~esr/writings/homesteading/homesteading/.

[61] Fontana, *supra* note 16, at 2.

[62] *Id.*; *see The Open Source Definition*, OPEN SOURCE INITIATIVE, http://www.opensource.org/docs/osd (last visited Oct. 12, 2013);which was based on *The Debian Free Software Guidelines (DFSG)*, DEBIAN, http://www.debian.org/social_contract#guidelines (last visited Oct. 12, 2013); and Stallman, *supra* note 33.

[63] Fontana, *supra* note 16, at 2. *See* Free Software Foundation, *Various Licenses and Comments About Them*, GNU, http://www.gnu.org/licenses/license-list.html (last visited Oct. 12, 2013).

[64] Fontana, *supra* note 16, at 2. *See Debian Social Contract*, DEBIAN, http://www.debian.org/social_contract#guidelines (last visited Oct. 12, 2013); Free Software Foundation, *supra* note 63 (including notes on whether particular licenses are compatible with the GPL).

One of the chief points of difference among licenses is the "viral" quality of free software licenses containing strong "copyleft" provisions. These provisions require the adoption of the free license for any future distributions of derivative works.[65] If software licensed under the GNU GPL, for instance, is desirable for use in developing new software, to a certain extent that desirability will create a larger market share for GNU GPL software, as the new developments will also be released under the GNU GPL.

The viral quality of copyleft licenses, however, may ultimately be less influential in the choice of a license than the sum of preferences in a community of developers, preferences for constituent pieces of software, for the policy goals of a particular license, and for the signals that the choice of a particular license sends to the wider community. For instance, Marco Boerries, then vice president of Sun Microsystems, told Stallman's biographer that the company chose to release OpenOffice under the GNU GPL largely because the choice would attract a particular community of users: "What basically happened was the recognition that different products attracted different communities, and the license you use depends on what type of community you want to attract. . . . With [OpenOffice], it was clear we had the highest correlation with the GPL community."[66] The licensing decisions of major free software distributions are influential not just because, depending on the licensing terms, they may "lock in" that license for all subsequent distribution of the code and its derivatives, but also because the choice of the license speaks to a community of users in the market for free software.

Thus, free software licenses form communities around the licensed work and facilitate sharing within those communities, thereby fundamentally departing from the ordinary enforcement of copyright, which centers on excluding others from exercising the exclusive rights of the copyright holder in order to extract value from that exclusion.

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[65]*See* Stephen J. Davidson and Nathan S. Kumagai, *Developments in the Open Source Community and the Impact of the Release of GPLv3*, 25 THE COMPUTER AND INTERNET LAWYER at 5 (January 2008). What constitutes a "derivative work" that triggers this requirement varies from license to license, and the triggers themselves require careful analysis. Davidson and Kumagai point out that "while it is fairly clear in some cases that the use of GPL code to build a new product would render the resulting product subject to the GPL, there are many instances in which that is not at all clear one way or the other". *Id.*

[66]WILLIAMS AND STALLMAN, *supra* note 12, at 183–84 (quoting Marco Boerries in a July 2000 interview with Williams).

As demonstrated, this form of alternative transaction depends on the enforcement mechanisms of copyright law.[67] Finally, open source software licensing has a relationship to its market, not only in the sense that there has been a proliferation of hundreds of variations on open source licenses to serve the needs of hacker communities, but also in the sense that the licenses themselves are meaningful focal points for attracting users. The alternative transaction, then, is both responsive to and generative of the market for free software. The next section of the Article will turn to the nascent recognition of author's rights by the Stationers' Company, to analyze the extent to which it shares these aspects of free software licensing.

B. AUTHORIAL ENTRY IN THE STATIONERS' REGISTER AS AN ALTERNATIVE TRANSACTION

This section begins with some background in the copyright regime that was current in the sixteenth and seventeenth centuries, then analyzes the evidence for the creation of alternative transactions in this period.

1. Copyright in the Hands of the Stationers

In Tudor England there were two ways to gain a monopoly in the right to print a text. The first was to receive a grant of a royal privilege or patent from the crown.[68] While printing privileges were occasionally granted to the author of the work in question, such grants were very rare and privileges were most commonly granted to printers.[69] Because such privileges were sovereign grants, they provided little opportunity for authors to negotiate terms and therefore little opportunity to create transactional alternatives. Following the charter of the Stationers' Company in 1557, however, a second way to

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[67] *See supra* text accompanying notes 51–58.

[68] For a brief account of printing privileges, *see* A. W. Pollard, *The Regulation of the Book Trade in the Sixteenth Century*, 8 THE LIBRARY 18, 20–21 (1916).

[69] Privileges could cover a right to print a single title or a class of texts (such as music books or law books), with some "general" privileges protecting any text first printed by the recipient from being copied, usually for a set number of years. Some scholars make a distinction between privileges protecting particular texts and privileges covering classes of texts by calling the latter a "patent of monopoly." *See* SIEBERT, *supra* note 2, at 34–35, 37–39; Kirschbaum, *supra* note 18, at 44–46.

achieve a printing monopoly developed through entry of a text on the Stationers' Register, without the need for a royal privilege.[70] With a few exceptions, only master printers, a specially designated and regulated group within the Stationers' Company, were allowed to own and operate printing presses.[71] Only members of the Stationers' Company, which included booksellers as well as printers, had the right to enter a work into the Stationers' Register, which initially served as a list of works that had been approved (or "licensed") by the appropriate authorities for publication.[72] Over time, entry in the register came to serve as evidence of ownership of the "copy."[73]

The rights derived from first publication and evidenced by entry in the registry were enforced by the Court of Assistants within the Stationers' Company.[74] The Court of Assistants, which consisted of the master of the Stationers' Company, two wardens, the clerk, and a number of master printers, resolved disputes between members as the governing body of the Company.[75] The Star Chamber Decree of 1586 explicitly gave the wardens power to search for and seize illegal books and to confiscate and destroy illicit presses, manifesting the early coupling of copyright and censorship.[76] The Court regularly fined members for printing a copy belonging to another member of the

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[70] SIEBERT, *supra* note 2, at 77–78.

[71] W. W. GREG, RECORDS OF THE COURT OF THE STATIONERS' COMPANY: 1576 TO 1602 FROM REGISTER B xxxix (1930). The exceptions were the King's Printer, Printers to the Universities, and others given special permission by the sovereign. *Id.* at n.1; *see also* SIEBERT, *supra* note 2, at 68–69.

[72] SIEBERT, *supra* note 2, at 77–78. For an account of the typical career of a bookseller in relation to the printers in the Company during the late sixteenth and early seventeenth century, *see* CYPRIAN BLAGDEN, THE STATIONERS' COMPANY: A HISTORY, 1403–1959, 78–91 (1960).

[73] SIEBERT, *supra* note 2, at 77. The word "copy" was used both to refer to the exclusive right to publish a work (as in "entered for his copy") and to the works covered by such an exclusive right (as in "printing another man's copy"). *Id.* On the distinction between entry as evidence of ownership, as opposed to conferring ownership, *see* John Feather, *From Rights in Copies to Copyright: The Recognition of Authors' Rights in English Law and Practice in the Sixteenth and Seventeenth Centuries*, *in* THE CONSTRUCTION OF AUTHORSHIP: TEXTUAL APPROPRIATION IN LAW AND LITERATURE 191, 202 (Martha Woodmansee and Peter Jaszi, eds., 1994).

[74] SIEBERT, *supra* note 2, at 67–68.

[75] *Id.* For a brief account of the workings of the Court and the contents of its surviving records, *see* Greg, *supra* note 71, at xiii–xviii.

[76] PATTERSON, *supra* note 20, at 115–19.

Company, but was also empowered to impose other remedies, such as dividing up an inventory of printed books between contentious stationers who each claim the right to sell it or granting one disputee the right to print the work, and the other the right to sell the work to the public.[77] The Court levied the first fine for "printing another man's copy" against Owen Rogers within the first two years of the Company's Charter.[78] Because the fine was for copy that was not covered by a royal privilege, it is evidence that the Company almost immediately began policing a property interest in copy apart from the protection provided by the privilege.[79] Initially, authors did not enter into this system. While the rights of the stationers were transferable and divisible within the Company,[80] there was no concept of an author's right to the intellectual property in a work by virtue of having created the work. Generally speaking, the property rights of an author

[77] SIEBERT, *supra* note 2, at 80–81.

[78] *Id.* at 77.

[79] SIEBERT, *supra* note 2, at 77. For evidence of additional fines and further discussion of the treatment of copies as property, *see* Feather, *supra* note 73, at 196–98.

[80] *See* SIEBERT, *supra* note 2, at 79. The deals between stationers could become quite complex. Patterson cites a number of interesting examples of deals splitting a copy between printers and booksellers, creating what he terms a separate "printer's right," including a deal for the sale of Edward White's copies for seven years with a royalty-like provision in which White would receive eighteen pence per ream printed, with a right of inspection and the right to appoint the printer to be used. PATTERSON, *supra* note 20, at 50–51, n. 33.

were rights in the manuscript as a physical object,[81] with perhaps the power to withhold it from (or a right to be paid for) publication.[82]

In the majority of early cases, the printer of a book also entered it into the Register, but there were variations on the ordinary transaction in which a bookseller acting as a "capitalist" would enter the text into the Register and then hire a printer and other tradesmen to typeset and print the book.[83] An order in the Court records of January 1598, "Against printing for forens to the Company," indicates that stationers would also enter texts and then print them on behalf of investors who were not members of the Company.[84] This was a potential avenue through which authors may have attempted to profit from their own works during the early years of the Company, but it would probably have required significant capital to pay for the printing. In any case, the Court's decision prohibited this activity after 1598, making the parties' rights in any such copy forfeit:

> yt is ordered that if any pson or psons of this Company shall hereafter print or cause to be printed any copie or booke wche shall not be prop to hym self and whereof

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[81] Kirschbaum, *supra* note 18, at 44. *But see* PATTERSON, *supra* note 20, at 70–71, who argues that the stationers often respected "personal rights" of authors to alter and revise works, though "there was no well defined body of creative rights enforceable in courts of law or even in the Court of Assistants." Patterson in part bases his argument on the view that "these rights of the author and artist are personal to them to protect their personality." *Id.* at 71. But, this view almost undoubtedly overestimates the extent to which works were viewed as extensions of authorial personality during this period. *See* Woodmansee, *supra* note 4, at 426–27.

[82] See PATTERSON, *supra* note 20, at 67–69 (citing instances in the Court Records imposing liability for publication without permission from the author or recognizing the right of the author to be paid). On the power to withhold manuscripts from publication through "blocking entries" in the Stationers' Register, *see* W. W. GREG, SOME ASPECTS AND PROBLEMS OF LONDON PUBLISHING BETWEEN 1550 AND 1650, 112–22 (1956). These entries were often made by stationers on behalf of acting companies such as the Lord Chamberlain's company, who had paid a playwright for the text of a play and wanted to protect it from distribution in print outside its own productions, but Greg cites entrance of other literary works not intended for publication. *Id.*

[83] M.A. Shaaber, *The Meaning of the Imprint in Early Printed Books*, 24 THE LIBRARY 120, 121 (1944). The balance of power between printers and booksellers gradually shifted over time as booksellers began to amass ownership of copies by virtue of their mastery of the retail market. *See* Feather, *supra* note 73, at 199.

[84] Greg, *supra* note 71, at lxx.

> he shall not reape the whole Benefit to [him self] his own vse by sellinge it in the Companye but shall suffer any other pson or psons that shall not be of this companye to have the benefit of the sale or disposition thereof. Then in eu'y suche case all and euery suche booke and copies shall and may be disposed & printed againe accordinge to the discretion of the Master wardens, and Assistente of this Companye for the tyme beinge . . . And the ptie or pties offendinge herein shall ipo facto Lose & forfait all his & their Right and interest in all & eu'y suche booke and booke.[85]

Greg postulated that the order recognized "that the actual property in a copy might belong to someone other than the person entering the same, and that therefore it was not entrance that conferred the right."[86] It seems just as likely, however, that the Court is treating the rights of persons outside the Company as mere contract rights between those persons and a particular stationer, which the Court would not enforce against other stationers who wished to print the text. The Court's early refusal to honor such arrangements makes the development of alternative transactions for authors all the more remarkable.[87]

2. Transactional Alternatives to Stationers' Copyright

Around the turn of the sixteenth century, we begin to see evidence that authors were bargaining for greater rights in the monetization of their works, particularly with respect to subsequent editions or reprints.[88] An entry in the Stationers' Register, entered jointly for Master Bishop and John Windet in 1586, for the *Treatise of*

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[85] RECORDS OF THE COURT OF THE STATIONERS' COMPANY: 1576 TO 1602 FROM REGISTER B 59 (W.W. Greg and E. Boswell eds., 1930) [hereinafter *Records*].

[86] Greg, *supra* note 71, at lxx.

[87] Eventually, the practice seems to have returned. Patterson cites a number of entries after 1640 that note the publisher of the work as someone "other than the stationer to whom the copy was entered," who was "occasionally the author." PATTERSON, *supra* note 20, at 66.

[88] Kirschbaum, *supra* note 18, at 77.

Melancholy, authored by Timothy Bright,[89] includes a note "that master Doctour Bright hathe promised not to medle with augmenting or alteringe the said book untill th[e] impression which is printed by the said John Windet be sold."[90] As Greg has pointed out, this indication that the parties negotiated to limit Bright from issuing a new edition to a different stationer until after the first impression had sold out also implies that the parties understood Bright to be free to sell a revised or augmented edition of the same work to a different stationer after the initial impression sold out.[91] Patterson reads this entry as evidence that some stationers recognized "the right of the author, and by implication, only the author, to alter and revise his work despite the existence of copyright."[92] The "promise" from Bright recorded in the entry cited above is remarkable because the parties have negotiated to avoid a key problem in the stationers' system. Reprints and new editions often caused controversy around the question of when a work had been revised enough to be treated as a new work, that is: when could a different stationer buy a revised manuscript from an author and expect to be able to print it with impunity from suit by the stationer who owned the copy of the first edition? The notation answers that question by implication: Bright may edit the book and sell a new edition *when* the impression printed by Windet has sold. Though the notation in the Register acts as a shield for Windet and Bishop, it also limits the obligation of Bright, defining when he would be free of the sale of that particular manuscript to Bishop and Windet. The transaction may also have been motivated by the fact that the *Treatise of Melancholie* had previously been printed by Thomas Vautrollier

[89] Timothy Bright was a medical doctor and inventor of a system of shorthand. Page Life, *Timothy Bright*, *in* OXFORD DICTIONARY OF NATIONAL BIOGRAPHY (Jan. 2008), *available at* http://www.oxforddnb.com/view/article/3424.

[90] As transcribed in EDWARD ARBER, 2 A TRANSCRIPT OF THE REGISTERS OF THE COMPANY OF STATIONERS OF LONDON 1554–1640 A.D. 457 (1950).

[91] Greg, *supra* note 71, at lxx–lxxi, n.1.

[92] PATTERSON, *supra* note 20, at 71.

that same year, so the parties may have been particularly sensitive to the issue of how many copies were on the market.[93]

Bright and Windet worked together at least twice more.[94] Though neither of these works resulted in extraordinary entries in the Register, both are remarkable for other evidence of the extent of Bright's rights. In 1588, Bright received a royal patent from Queen Elizabeth I in honor of his work, *Characterie*, on a new form of shorthand.[95] The patent was a printing privilege preventing others from teaching or publishing Bright's or any competing form of shorthand (not already commonly known) for fifteen years.[96] The colophon of the edition indicates that John Windet printed *Characterie* "at the assigne of Tim Bright" and acknowledges the royal patent with the legend "Cum privilegio Regiae Maiestatis, Forbidding all others to print the same."[97] As the privilege holder, Bright likely had the leverage to negotiate for a cut of the profit, because the privilege gave him the exclusive right to print the work. Bright also worked with Windet in the publication of his abridgement of Foxe's *Acts and Monuments*.[98] Again the colophon indicates that the book is printed by

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[93] Presumably Bright and Windet were aware of Vautrollier's edition, and Bright had perhaps obtained permission to sell the manuscript to Windet after selling it to Vautrollier. Vautrollier's edition does not appear to have been recorded in the Register. Vautrollier's edition is noted in A SHORT-TITLE CATALOGUE OF BOOKS PRINTED IN ENGLAND, SCOTLAND, & IRELAND AND OF ENGLISH BOOKS PRINTED ABROAD, 1475-1640 (A. W. Pollard & G. R. Redgrave, eds., 1956), *available at Early English Books Online*, http://eebo.chadwyck.com/home [hereinafter *STC 2nd ed.*]. The STC assigns numbers to each catalogue entry, which are used to identify unique editions. *Early English Books Online* compiles complete images of each edition, searchable by the STC number from the URL cited here. Hereinafter, images of original editions will be cited by STC number. The Vautrollier edition of *A Treatise of Melancholie* is *STC 2nd ed.* 3747. Though it is typeset differently from Windet's edition (*STC 2nd ed.* 3748), the tables of content are identical. *See also* Life, *supra* note 89 (citing Vautrollier's publication).

[94] Mark Bland, *John Windet*, 170 DICTIONARY OF LITERARY BIOGRAPHY 319, 320. *See also* JOHN FOXE, AN ABRIDGEMENT OF THE BOOKE OF ACTS AND MONUMENTES OF THE CHURCH: WRITTEN BY THAT REUEREND FATHER, MAISTER IOHN FOX: AND NOW ABRIDGED BY TIMOTHE BRIGHT, DOCTOUR OF PHISICKE (1589), *STC 2nd ed.* 11229; TIMOTHIE BRIGHT, CHARACTERIE (1588) *STC 2nd ed*. 3743, *supra* note 93.

[95] Life, *supra* note 89.

[96] *Id.*

[97] *STC 2nd ed.* 3743, *supra* note 93, at title page.

[98] Bland, *supra* note 94, at 320.

Windet "at the assignment of Master Tim Bright."[99] Though there is no evidence of a royal privilege having attached to this work, perhaps Bright was interpreting his patent from Elizabeth I liberally and applying it to this additional work, as it, too is marked "Cum gratia & Privilegio Regia Maiestatis."[100] Even more remarkably, the publication of the abridgement of Foxe's work caused a dispute with Richard Day, the member of the company who held a privilege for Foxe's complete book.[101] The circumstances of the dispute are not recorded, but the Court Records include a note that the master and the wardens would be held harmless from any damages claimed by Bright and Windet against them by reason of any promise or agreement made by them "touching . . . the late Controversie or striffle touchinge the abridgement of the Booke of Martyrs."[102] The inclusion of Bright along with Windet amongst the parties who may have had a claim from which the wardens were indemnified suggests that Bright had some form of continuing monetary interest in the work after publication.

Generally, the right to issue exact reprints would rest in perpetuity with the stationer who held the original copyright and no additional remuneration to the author was necessary for a reprint.[103] In 1602, however, the Court mediated a dispute over a reprint that does appear to have involved additional remuneration for the author.[104] The text was *The English Schoolmaster* by Edmund Coote, an enduring and popular text that would go through sixty-four printings between

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[99] *STC 2nd ed.* 11229, *supra* note 93, at title page.

[100] *Id.*

[101] Greg, *supra* note 71, at lxv–lxvi.

[102] *Records*, *supra* note 85, at 31–32.

[103] There were nuances around the perpetuity of copyright, affected by Company rules at different times. A rule adopted in 1577/78 called for the rights in a book that was out of print and that the owner did not re-issue to go for the benefit of poor members of the Company. SIEBERT, *supra* note 2, at 80. In 1588, the Company's orders allowed for six months in which the original copyright holder could issue a reprint and after that the copy was available to any journeyman who partnered with the original holder to produce the book. SIEBERT, *supra* note 2, at 80; *see also* Greg, *supra* note 71, at lxxvi (noting that the copy of holders who died without devisees or heirs would theoretically lapse to the ownership of the Company, but would occasionally be disposed by the Court).

[104] SIEBERT, *supra* note 2, at 81.

1596 (the year the copy was entered in the Register) and 1737.[105] The copy was entered to Raffe Jackson and Robert Dexter in December of 1596,[106] but Jackson transferred his interest to Cuthbert Burby in April of 1602.[107] Burby and Dexter then each printed impressions without accounting to each other—Burby printed 500 copies and Dexter printed 1500.[108] In the resulting dispute, the Court fined each of them, ordered Dexter to turn over 500 of his copies to Burby, and then ordered that the parties would share the costs of producing the copies.[109] Though these impressions were apparently reprints of the 1596 edition, the Court's order specifies that "all charges aswell to the Aucthor as otherwise to be equally borne betwene them parte and parte like."[110] The Court records rarely give a full explication of the facts in a case, so we don't know why Coote in this case would have been entitled to additional remuneration for a reprint, but we can surmise that there was an underlying contract with the author, which the Court enforced in spite of the default position that the stationer's copyright was perpetual and that it could subsist only in the hands of stationer.[111] In the same year, the Court similarly ordered that John Stowe receive remuneration for subsequent editions of his *Survey of London* and the *Summary of English Chronicles*, but in this case the author contributed substantive revisions, the Court noted that the remuneration was "for

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[105] Brent Nelson, *Introduction: Printing History*, EDMUND COOTE: THE ENGLISH SCHOOLE-MAISTER (1596), AN OLD-SPELLING EDITION OF STC 5711, http://www.library.utoronto.ca/utel/ret/coote/ret2.html (last visited Oct. 12, 2013).

[106] ARBER, *supra* note 90, at vol. 3, 77.

[107] SIEBERT, *supra* note 2, at 81.

[108] *See* RECORDS, *supra* note 85, at 88 (displaying a transcription of the order and marginal notes cross-referencing the entries in the register); *see also* SIEBERT, *supra* note 2, at 81 (discussing the order as "a practical method for dealing with the complex questions of copyright adopted by the Court of Assistants" as well as transcribing the order).

[109] Greg, *supra* note 71, at lxxi; s*ee also* SIEBERT, *supra* note 2, at 81.

[110] SIEBERT, *supra* note 2, at 81. Because all of the copies of this edition have been lost, we cannot know for sure whether there were any revisions, but since the subsequent 1636 edition is "substantially the same" as the 1596 edition, it is not likely that the author would have sent out sets of revisions to both of the stationers. The Court treats the copies as interchangeable, so it seems likely that the edition was merely a reprint of the previous Jackson/Dexter edition. Greg, *supra* note 71, at lxxi.

[111] Greg, *supra* note 71, at lxxi.

his paynes," and the edition of the *Summary* was entered in the register as a new work.[112]

Clearly there was opportunity for authors like Bright, Coote, and Stowe to negotiate additional remuneration for, and a continuing role in, the production of subsequent editions. Yet more remarkable, there is evidence that some authors succeeded in negotiating limitations on the buyer-stationer's rights to publish the text.[113] In 1607, John Browne entered a music book, *Musicke of sundrie kindes*, by Thomas Ford in the Stationers' Register.[114] There is a note beneath the entry, dated two days later (and signed by Browne), reading: "Yt is agreed 13 marcii [1607] Anno supradicto, that this copye shall neuer hereafter be printed agayne without the consent of master fford the Aucthour."[115] Browne entered the book as the apparent owner of copy (and therefore likely the publisher bearing the cost and risk of the publication), but the colophon of the book indicates that there were other important parties to the transaction.[116] The colophon indicates that the book was "Imprinted at London by Iohn Windet at the Assignes of William Barley, and are to be sold by Iohn Brovvne in Saint Dunstons churchyard in Fleetstreet."[117] So, John Windet again serves as printer—the same printer involved with the publication of Timothy Bright's *Treatise of Melancholy*, for which the parties negotiated a moratorium on Bright's selling of revisions until the first impression had sold out.[118] William Barley was the holder of a privilege in music books[119] and the reference to him in this colophon indicates that he had given permission for the publication of the book.

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[112] Greg, *supra* note 71, at lxxi and lxxi, n.1.

[113] Kirschbaum, *supra* note 18, at 78.

[114] *Id.*

[115] ARBER, *supra* note 90, at vol. 3, 344. *See also*, Kirschbaum, *supra* note 18, at 78.

[116] *See also*, Kirschbaum, *supra* note 18, at 78 (noting that Browne entered the book in the register and quoting part of the colophon).

[117] *STC 2nd ed.* 11166, *supra* note 93, at title page.

[118] See *supra* text accompanying notes 89–93.

[119] Gerald D. Johnson, *William Barley, Publisher & Seller of Bookes*, 1591–1614, s6-11 THE LIBRARY 10, 10.

John Browne was a bookseller and bookbinder.[120] The wording of the colophon, and the fact that Browne is the one who entered the book, suggest that Browne was working as both publisher and retail seller, while paying Windet to print the book and Barley a share of profits for permission to publish.

In this thicket of interests, Thomas Ford, the author, apparently succeeded in negotiating for the requirement of his consent to reprint. So Browne willingly gave up rights that would ordinarily have accrued to him as the initial publisher of the book.[121] For Ford, a second chance at selling the manuscript after the reputation of the work had been made might have seemed attractive (and we can surmise that Browne might have paid Ford less for the right to publish the manuscript only once), but we can't know the true circumstances. The work was Ford's first and only book.[122] Three years after its publication, he was appointed musician to the Prince of Wales and continued from there until his death as a successful court musician and composer with a combined annual salary of eighty pounds.[123] Browne and Windet worked together at least three more times, two of which are recorded in the Register,[124] but none of these publications have resulted in evidence of any unusual transaction.[125] This suggests that Ford, the author, as the unique variable here, may have been the party seeking the alternative transaction, or that Browne made the offer as a way of attracting Ford to transact with him over another stationer.

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[120] H.R. Plomer, *Browne (John) Senior*, *in* DICTIONARY OF PRINTERS AND BOOKSELLERS, 51–52 (1922). Browne published a wide variety of literature, from music to cook books, though Ford's *Musick of sundrie kinds* is considered by Plomer to be one of his "most notable" publications. *Id.* at 51.

[121] Kirschbaum, *supra* note 18, at 78.

[122] Frank Traficante, *Thomas Ford (d. 1648)*, *in* OXFORD DICTIONARY OF NATIONAL BIOGRAPHY (2004, online ed. Jan. 2008), *available at* http://www.oxforddnb.com/templates/article.jsp?articleid=9866&back=.

[123] *Id.*

[124] Johnson, *supra* note 119, at 45 (listing music books published between 1606 and 1613 with the enterer, printer, and a citation to the entry in the Register). Windet and Browne collaborated on Bartlet's Bk of Ayres, Cooper's Funeral Tears (see footnote a), and Campion's Mask for Hayes, in addition to Ford's Music of Sundry Kinds. *Id.* The colophon for Funeral Tears also acknowledges an assignment from Barley. *Id.* at n. *.

[125] The entries in the Register for *Bk of Ayres* and *Mask for Hayes* do not indicate anything out of the ordinary. *See* ARBER *supra* note 90, at vol. 3, 317 & 337.

Similarly, in 1627, William Jones entered John Dansie's *A mathematicall manuell* and the following note was recorded with the entry: "Memorandum that this booke is not to be reimprinted againe, without the consent of the author Master Dansye."[126] The following year, Jones entered another copy with a similar note.[127] This time, the entry, for Thomas Paybody's *A just apologie for kneeling in the act of receiving the lord's supper*, is signed by Jones and states that he agrees "not to reimprinte the same booke againe with out the Authors Consent" and to "surrender vp the said Coppie to him againe, when he shall require it."[128] Jones had been an apprentice to John Windet.[129] The contracts underlying these entries can be analogized to modern limited licenses of copyright. Even more remarkably, the parties were using the Stationers' Register, the chief enforcement mechanism for stationers' copyright, to record their own contract rights.[130] As Kirschbaum remarks, "It is rather bewildering to see the guild acceding to such a drastic limitation of a member's traditional rights. There may have been special circumstances."[131]

The particular circumstances behind each of these extraordinary entries are not known, but it seems clear that the underlying agreements between Bright, Coote, Ford, Dansie, Paybody, and their respective publishers were evidence of new assertions on the part of authors. Each of these authors negotiated a transactional alternative to the copyright regime organized under the Stationers' Company. By bisecting rights to the manuscripts in new ways, these agreements brought the parties a step closer to viewing the

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[126] ARBER, *supra* note 90, at vol. 4, 191. *See also*, Kirschbaum, *supra* note 18, at 78.

[127] Kirschbaum, *supra* note 18, at 78.

[128] ARBER, *supra* note 90, at vol. 4, 202. *See also*, Kirschbaum, *supra* note 18, at 78.

[129] Bland, *supra* note 7, at 320; H.R. Plomer, *William Jones*, *in* DICTIONARY OF PRINTERS AND BOOKSELLERS, 160–61 (1922). Plomer identifies Redcross Street as the location of Jones's house. *Id*. at 160. We can confirm that the William Jones who signed the entry for Paybody's book is the same William Jones who was apprenticed to John Windet because the colophon of *A just apologie* identifies the printer as "William Iones, dwelling in Red-crosse-streete." *STC 2nd ed.* 19488, *supra* note 93, at title page.

[130] Feather, *supra* note 73, at 198–99. The form of these entries recalls the form of "conditional entries" identified by John Feather, which made entry in the Register conditional on the status of certain "legalities of ownership of the copy" amongst stationers. *See Id.*

[131] Kirschbaum, *supra* note 18, at 78.

manuscripts as intellectual property, rather than physical objects subject to a single sale. By creating authorial control over some of those rights, the parties to these agreements anticipated the modern development of authors' rights to that intellectual property.

3. Analogy to Open Source: Stakeholders, Enforcement, and Market Responsiveness

Turning back to the analogy to open source software licenses, it is now apparent that the alternative transactions described here share some salient features with the open source software licenses discussed in the previous section. Like open source software licenses, these alternative transactions departed from the usual disposition of stationers' copyright in that they reserved rights in the author, for instance to refuse or receive remuneration for subsequent reprints. Stationers' copyright was intended to protect the investment that publishers, booksellers, and printers put into the production of books by maximizing their rights to exploit the copy they printed. The alternative transactions described above circumscribed those stationers' rights. Yet, like open source software licenses, they depended on the existing enforcement mechanisms, using both the Court of Assistants and the Stationers' Register to recognize the negotiated rights of the authors as stakeholders other than the copyright holder. Finally, like open source software licenses, the alternative transactions negotiated by authors in these instances appear to be responsive to the market for copy. There are repeat players in our small data sample, John Windet and William Jones, who apparently found the arrangement satisfactory enough to enter into it with more than one author. Windet and Jones had also worked with each other as master and apprentice for nine years between 1587 and 1596.[132] Conceivably, they found this kind of transaction an effective way to attract particular authors to the market. In this sense, this alternative transaction could be seen as generative of a market in the same way that open source software licenses also attract particular consumers and developers of software to each other.

[132] Plomer, *supra* note 120, at 160

III. INCENTIVE TO CHANGE: WHY DO ALTERNATIVE TRANSACTIONS DEVELOP?

This section of the Article will consider why these alternative transactions developed by looking at the context in which each transaction appeared. What changes, to culture, technology, marketplace, or otherwise, incent the creation of alternative copyright transactions? The circumstances surrounding the appearance of open source software licenses and authorial entry on the Stationers' Register share a number of elements, suggesting that stakeholders in copyright are likely to construct transactional alternatives under the following conditions: 1) if the rise of a new technology causes initial ambiguity regarding the application of copyright to works produced with the new technology, then settles in favor of a particular regime; 2) if the settled copyright regime creates resistance to the production of the works in question; and 3) if creators of those works perceive a need for a new kind of deal to facilitate and compensate the creation of these works.

A. AMBIVALENCE IN THE REGULATORY ENVIRONMENT

First, in both cases the applicable regulatory environment was ambivalent with respect to works produced by a new technology. At the time of the rise of the printing press, there was no copyright regime under English law at all.[133] In the first thirty years following Caxton's first printing of a book in England in 1477,[134] there was little new regulation of book production.[135] The earliest form of copyright in England, which was a royal printing privilege granted by the Crown conferring a monopoly in the right to print a text, appeared sometime before 1518.[136] In the years between the first such privilege and the chartering of the Stationers' Company in 1557, privileges in particular

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[133] Patterson, *supra* note 20, at 20.

[134] This book was likely the *Dictes or Sayengies of the Philosophres*. *See* H. S. BENNETT, ENGLISH BOOKS & READERS: 1475 TO 1557, at 12 (1952).

[135] There were restrictions on possessing and distributing books that were deemed heretical under ecclesiastical regulations, such as Archbishop Arundel's Provincial Constitutions, but these had been in place since 1410, before the introduction of printing in England. *See* Arthur W. Reed, *The Regulation of the Book Trade before the Proclamation of 1538*, 15 TRANSACTIONS OF THE BIBLIOGRAPHICAL SOCIETY 157, 158–60 (1918).

[136] SIEBERT, *supra* note 2, at 35.

texts were sometimes granted to authors, instead of to printers.[137] Though, over time, grants to printers became the norm,[138] privileges continued to be granted to authors even after the formation of the Stationers' Company.[139] For instance, we know that the printer John Windet worked with the author Timothy Bright to publish his *Characterie* under Bright's privilege.[140] Such authorial grants did occasionally cause confusion among stationers. There was a case heard by the Court of Assistants in 1628 that resulted from a translator of Ovid's *Metamorphosis* being given a royal privilege after stationers had already entered the copy in the register.[141] The case was resolved in favor of the translator and the stationer's entrance in the Register was crossed out.[142] Not all authorial grants were as readily respected. George Wither famously suffered a protracted battle with the stationers over his patent for a collection of hymns.[143] Wither's patent required that his collection be included inside any psalm book printed in meter, while the Stationers' Company owned a general patent covering metered psalms.[144] Conflict was inevitable and Wither spent the life of the grant fighting for the rights given by it.[145] As a result, the copyright regime of the seventeenth century was not consistent in its treatment of all authors. Authors with royal privileges held a form of copyright and contended for it on grounds separate from entry in the Stationers' Register.[146] From the very beginning there was the idea that authors could profit from their works in print, even if the mechanism for non-privileged copyright was aimed exclusively at stationers.[147] Therefore, it was possible for non-privileged authors to observe the benefits of a printing monopoly and to seek an alternative transactional route to gaining some of those benefits for themselves.

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[137] *Id.*

[138] *Id.*

[139] Kirschbaum, *supra* note 18, at 46–49.

[140] See *supra* text accompanying note 97.

[141] Kirschbaum, *supra* note 18, at 49–50.

[142] *Id.*

[143] *Id.* at 48.

[144] *Id.*

[145] SIEBERT, *supra* note 2, at 132.

[146] Kirschbaum, *supra* note 18, at 44.

[147] *Id.* at 51.

Similarly, in the mid-twentieth century, software developers had a long time in which to develop a culture of collaboration and sharing before the application of copyright law to software became fully settled.[148] As a practical matter, early software was produced in an atmosphere of "precompetitive collaboration."[149] In the era of massive mainframe computers, individual firms could not efficiently produce the basic software tools they all needed to use the mainframe, so they pooled resources and shared the software that their employees developed together.[150] Even industry competitors would collaborate this way. For instance, the Project for the Advancement of Coding Techniques (PACT) was a consortium of programmers from defense contractors, including Douglas and Lockheed, who worked together to build shared software in the 1950s.[151] From the beginning, there was the pragmatic idea that software was best produced and disseminated in a collaborative, as opposed to an exclusive, environment.

This legacy of sharing and collaborative development continued as a wider public began to gain access to microcomputers for home use in the 1970s. These consumers were generally tech-savvy, with the requisite background for programming, but in spite of their expertise (or perhaps because of it) they banded together into amateur clubs to pool resources and share knowledge.[152] The best-known of these clubs, the Homebrew Computer Club, included Apple founder Steve Wozniak among its members, along with many others who went on to make professional contributions in the computer industry.[153] Hobbyists regularly copied and shared software with each other—there was a rule at the Homebrew Computer Club that you could take home a tape of a program only if you brought back two more copies to share with others at the next meeting.[154]

Not all software developers felt that sharing software was fair. A young Bill Gates famously objected to this culture of sharing in "An

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[148] *See infra* text accompanying note 162 and note 164.

[149] WEBER, *supra* note 35, at 21.

[150] *Id.*

[151] *Id.* at 22.

[152] For a memoir of early club activities by a founding member, Bob Lash, *see generally* Bob Lash, *Memoir of a Homebrew Computer Club Member*, BAMBI (Jan. 9, 2013), http://www.bambi.net/bob/homebrew.html.

[153] *Id.*

[154] WEBER, *supra* note 35, at 36.

Open Letter to Hobbyists," published in February of 1976 in the newsletter of the Homebrew Computer Club and then in a number of other newsletters and magazines.[155] For Gates, the culture of sharing was a culture of stealing: "As the majority of hobbyists must be aware, most of you steal your software."[156] But Gates, who had licensed the Altair BASIC programming language developed by his nascent company, Micro-Soft, to the hardware manufacturer MITS, was already allied to the new industry in proprietary software.[157] He had hoped to receive royalties for each copy sold, but the sale of copies directly from MITS had been low.[158] Gates remarked in the letter that less than 10% of owners of the Altair microcomputer had paid for a copy of BASIC.[159] Gates argued that this state of affairs would kill the production of software for microcomputers: "one thing you do do is prevent good software from being written. Who can afford to do professional work for nothing?"[160] As Steven Weber has argued, what was happening at this moment was a clash of cultures on two levels: one level was philosophical (why do people create software—for creative fulfillment or for profit?); the other regarding how the new industry around computers and software should derive profit.[161]

As a matter of law, there had likewise been ambiguity regarding the application of copyright law to computer programs.

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[155] A list of references has been gathered at *Open Letter to Hobbyists*, WIKIPEDIA, http://en.wikipedia.org/wiki/Open_Letter_to_Hobbyists (last visited Nov. 19, 2013), along with links to posted scans of the letter in the following editions: *An Open Letter to Hobbyists*, HOMEBREW COMPUTER CLUB NEWSLETTER (Homebrew Computer Club, Mountain View, CA), Feb. 3, 1976, at 1, 2; *An Open Letter to Hobbyists*, COMPUTER NOTES (MITS, Albuquerque, NM), Feb. 1976, at 1, 3 (the newsletter published by MITS, the company that manufactured the Altair 8800 computer and had licensed Altair BASIC from Gates and Paul Allen); *Computer Hobbyists*, RADIO ELECTRONICS (Gernsback Publications, New York, NY), May 1976, at 1, 14 &16.

[156] Bill Gates, *An Open Letter to Hobbyists*, HOMEBREW COMPUTER CLUB NEWSLETTER (Homebrew Computer Club, Mountain View, CA), Feb. 3, 1976, at 1, 2, *available at* http://www.digibarn.com/collections/newsletters/homebrew/V2_01/gatesletter.html

[157] *Id.*

[158] *Id.*

[159] *Id.*

[160] *Id.*

[161] WEBER, *supra* note 35, at 37.

While the Register of Copyrights began allowing registration of computer programs in 1964, most firms preferred not to disclose source code, so that trade secret protection would apply instead.[162] The Copyright Office would register object code only under a "rule of doubt," meaning that there was no determination that the authorship necessary for copyright existed in the object code.[163] While there was discussion of the copyrightability of computer programs during the passage of the Copyright Act of 1976, it was not until 1980, following the report of the Commission on New Technological Uses of Copyrighted Works (CONTU) that the Act was amended to clarify the application of the law to software.[164] Amendment of the law, however, should not be seen as creating sudden clarity. As Christopher Kelty has argued: "(1) practices and knowledge about the law change slowly and do not immediately reflect the change in either the law or the strategies of actors; and (2) U.S. law creates a structural form of uncertainty in which the interplay between legislation and case law is never entirely certain."[165] By 1980, in any case, collaborative development of software within communities was an ingrained way of life for hackers, and more than that, it was a cultural value.[166]

So, there was ambiguity in the applicability of the then-current copyright regime to authors in the sixteenth century and to software developers in the 1960s. In each case the law ultimately settled in a form that favored nascent industries attached to the new technology, with printers establishing control of copyright outside the royal privilege and proprietary software companies, such as Microsoft, winning the clear ability to enforce software licenses with the statutory remedies of copyright. However, the initial ambivalence in each case allowed the creators of the copyrightable works in question to observe the benefits of creating (and consuming) works under a different

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[162] JULIE E. COHEN ET AL., COPYRIGHT IN A GLOBAL INFORMATION ECONOMY 215 (2010). A helpful summary of early software copyright law can also be found in Narodick, *supra* note 32, at 267–269.

[163] *Id.*

[164] COHEN ET AL., *supra* note 162, at 216–17. The revisions added the current Section 117 and a definition of a computer program to Section 101. *Id*. at 217.

[165] Christopher Kelty, *Inventing Copyleft, in* MAKING AND UNMAKING INTELLECTUAL PROPERTY 133, 142 (Mario Biagioli, Peter Jaszi, & Martha Woodmansee, eds. 2011).

[166] *See, e.g.*, Stallman's discussion of the moral imperative to share software in STALLMAN, *supra* note 33, at 19.

regime. Authors were able to observe the benefits of entering the market as a privileged author able to bargain for the printing and publication of a work as a rights holder, while hackers were able to observe the benefits of developing and using software as collaborators, free to modify and share source works. Such experiences would form a logical incentive to find a way to transact for these benefits.

B. RESISTANCE TO THE CREATION OF NEW WORKS

Even if the law had always been settled in each case, however, there were still fundamental issues with the way the law applied that made each alternative transaction attractive. The current copyright regime in each case provided resistance to the creation of new works. In the case of software, we have already seen that there was a natural gravitation toward the sharing of resources and collaborative work in the early days of software development. As the free software movement grew, hackers within the software development community and scholars of information economy alike would observe the fundamental benefits that open source brings to software development in particular. For instance, Eric Raymond's now classic essay anatomizing a strong open source project, "The Cathedral and the Bazaar", lays out a series of lessons learned from the development of the Linux operating system kernel.[167] The lessons Raymond derived emphasize the benefit of many perspectives brought to bear on a problem: "given a large enough beta-tester and co-developer base, almost every problem will be characterized quickly and the fix obvious to someone."[168] Perhaps most fundamentally, Raymond articulated the principle that "any tool should be useful in the expected way, but a truly great tool lends itself to uses you never expected."[169] This principle resonates with the concept of "generativity," a theory advanced by Jonathan Zittrain to explain the success of the Internet and the PC as technologies that "rel[y]on their users to figure out what to do with them."[170] In more compressed terms of economic analysis,

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[167] Eric Steven Raymond, *Release Early, Release Often*, THE CATHEDRAL AND THE BAZAAR (Aug. 2, 2000), http://catb.org/~esr/writings/homesteading/cathedral-bazaar/ar01s04.html.

[168] *Id.*

[169] *Id.*

[170] JONATHAN ZITTRAIN, *Preface to the Paperback Edition*, THE FUTURE OF THE INTERNET—AND HOW TO STOP IT ix (2008).

Yochai Benkler has identified the "advantages of peer production" as "improved identification and allocation of human creativity."[171] Allowing users to contribute to the modification of source code in whatever way they feel inspired to, as open source projects do, is arguably the optimal way to harness these benefits for software development.

Dissemination of software under proprietary licenses actively prevents the development of new software based on such source material, not merely because of the restrictive provisions attached to a particular piece of software, but because of the encroachment of proprietary rights on a communal text. Christopher Kelty's account of the early controversy surrounding the commercial sale of a version of EMACS illustrates this phenomenon.[172] EMACS, a text editor, was a program initially written by Richard Stallman and a group of others.[173] EMACS grew over time, almost like a living thing, as Stallman incorporated the contributions of a large group of users.[174] He ran the project as something he called a "software-sharing commune" in which he distributed copies without cost, but asked that anyone who developed improvements to the software send them back to him, so that the improvements could be incorporated into a coherent whole, which then could be made available to all.[175] The program itself was designed to accommodate such communal development: "EMACS has a modular, extensible design that by its very nature invites users to contribute to it and to extend it and to make it perform all manner of tasks—to literally copy and modify it instead of imitating it."[176] Over the years, different versions of the program proliferated as "EMACS was ported, forked, rewritten, copied, or imitated on different operating systems and different computer architectures in universities and corporations around the world."[177] Adding to the potential for confusion, of course, is the ambiguity in defining what the "software"

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[171] Benkler, *supra* note 13, at 377.

[172] *See generally* Kelty, *supra* note 165, for the account of the EMACS controversy in this paragraph.

[173] *Id.* at 134.

[174] *Id.*

[175] Kelty reproduces the exact rules of the commune as circulated by Stallman in the EMACS user's manual. *Id.* at 134–135.

[176] *Id.* at 134.

[177] *Id.* at 135.

is "in a context where all software relies on other software in order to run at all."[178] When GOSMACS, a non-commercial UNIX version of EMACS written primarily, but not solely, by James Gosling, was sold by Gosling to a commercial entity, Stallman collaborated with others to produce a new UNIX version, GNU EMACS.[179] It was found that GNU EMACS contained parts of the GOSMACS code.[180] There was immediate confusion over the status of GNU EMACS and whether it was still legal to distribute.[181] Stallman initially claimed that he had permission to use the code and then ultimately re-wrote it, but Kelty has argued that the episode left lingering questions that pushed Stallman to find new answers: "How would the EMACS commune survive if it wasn't clear whether one can legally use another person's code, even if freely contributed? . . . How would Stallman avoid the future possibility of his own volunteers and contributors later asserting that he had infringed on their copyright?"[182] Application of the usual norms of author's copyright to the collaborative creation of software caused confusion and impeded the functioning of the software development community without some clear way for upstream developers to share rights with downstream users.

Conversely, attempts to sell literary works for the print market in a world without author's copyright posed difficulties. Of course, great literary works have been produced in manuscript without the aid of copyrights, and indeed, were often the result of authors' ability to freely re-use source material in a way that would not have been possible under today's copyright regime without a license.[183] This resistance was not about the ability to produce a great poem, but the ability to produce a printed work, and to extract value out of the market for printed works in a way that could financially support an author's continued work.

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[178] *Id.* at 144.

[179] *Id.* at 136–38.

[180] *Id.* at 138.

[181] Kelty analyzes and quotes extensively from the discussion on net.emacs, not least the frustration of those who had freely contributed code to Gosling's version under the assumption that it would remain freely available. Kelty, *supra* note 165, at 138–41.

[182] *Id.* at 145.

[183] For instance, many of Chaucer's great works are derivative of other works. *See* REBECCA L. SCHOFF, REFORMATIONS: THREE MEDIEVAL AUTHORS IN MANUSCRIPT AND MOVABLE TYPE 3 (2007).

Authors had long been sustained by alternate means of support, for instance, through aristocratic or ecclesiastical patronage.[184] But, as the correspondence of the humanists suggests, patronage had several drawbacks, including social obligations to one's patron and a loss of control over content when patrons exercised the power of the purse to influence what went in a book.[185] For instance, correspondence from Erasmus has survived in which he bitterly bemoans the demands of a lady patron on his time ("Last of all, it does not satisfy you that I shall in due time make famous both our friendship and the Lady's munificence, when the books are published; but I must also write hundreds of letters every day!").[186] Erasmus also recorded particular instances in which he or his friends were pressured by patrons to modify the content of their works before publication.[187]

The market created by printing technology provided a new potential source of support with a direct conduit to the reading public, but shifting away from a patronage system was difficult when authors had only limited leverage (in the form of an initial sale) when negotiating publication of their work. In the case of playwrights, the acting companies to which they made initial sale of manuscripts typically held all rights to the play.[188] An author might receive six to ten pounds from a theatrical impresario in the initial sale, and any sale for print publication would be undertaken by the acting company, if at all, for prices as low as two pounds.[189] I have argued elsewhere that the subsidization of an author's income by patrons probably pushed down the price that printers were willing to pay for manuscripts.[190] In the case of plays, the acting companies, as intermediaries between the

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[184] See *Patronage*, *in* THE OXFORD COMPANION TO ENGLISH LITERATURE 745–746 (Margaret Drabble, ed., 1985).

[185] I have discussed this phenomenon in greater detail at Curtin, *supra* note 23, at 407–13.

[186] Erasmus to Jacob Batt, *Letter 146*, Paris, 27 January [1501], THE CORRESPONDENCE OF ERASMUS 18–19 (R.A.B. Mynors and D.F.S. Thomson, trans., 1974).

[187] *See, e.g.*, Erasmus to Andrea Ammonio, *Letter 218*, Dover, 10 April [1511], *in* Mynors and Thomson, *supra* note 186, at 156–57 (discussing a request from Andrea's patron that the preface of a work be omitted before publication because "he is most averse to any suspicion of vanity").

[188] Loewenstein, *supra* note 9, at 102.

[189] *Id.* at 102 & 104.

[190] Curtin, *supra* note 23, at 412–13.

playwright, the printer, and the audience, probably played a similar role in driving down the price printers were willing to pay, given that there was already an investment on the part of the company.[191] This problem was exacerbated by the ample opportunity for piracy, with multiple copies of the script in the hands of down-at-heels actors.[192] Without any way of enforcing or retaining rights beyond the initial sale of the manuscript, authors also struggled to produce collected works, as it was necessary then to buy back or negotiate permission for the rights to anything that had been previously published.[193] One way to avoid the problem would be to have the book printed at the author's own expense, but, according to the official ordinances of the Stationers' Company, this avenue was available only to authors who had been granted a royal privilege (or to members of the Stationers' Company who also happened to be authors).[194] Unprivileged authors did not technically have the right to invest in the publication of their own works.[195]

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[191] When Jonson was able to sell a play directly to his audience, as when he provided a masque for performance at Court, he was paid four times what the acting companies paid. Loewenstein, *supra* note 9, at 103.

[192] *Id.* at 105.

[193] For instance, the process for putting together the permissions to print Ben Jonson's collected *Workes* was laborious, *see* Mark Bland, *William Stansby and the Production of The Workes of Beniamin Jonson, 1615-16*, s.6-XX THE LIBRARY 1, 16–17 (1998). Loewenstein champions the publication of the collected works as allowing Jonson to "disable[e] the proprietary intrusion of acting companies" as he extensively revised the plays "relocating them from stage to page." Loewenstein, *supra* note 9, at 109. The printer/publisher with whom Jonson worked was William Stansby, who had been an apprentice to John Windet during the same period as William Jones. Bland, *supra* note 94, at 320. Windet took Stansby on as his partner in the business, which Stansby fully acquired upon Windet's death in 1611. James K. Bracken, *William Stansby's Early Career*, 38 STUDIES IN BIBLIOGRAPHY 214 (1985).

[194] There are examples of printers who composed or translated works and then printed them, including England's first printer, William Caxton, *see* BENNETT, *supra* note 134, at 152.

[195] *But see supra* note 87 (and accompanying text).

C. GROWING CONSCIOUSNESS OF THE NEED FOR A NEW DEAL

Alongside this resistance, to the collaboration of hackers and to an author's entrance in the market for printed works, there was, in each case, a growing consciousness of the needs of the hacker and author. First, we can see that in the sixteenth century, the perspective of authors was changing. Much recent work has dealt with the development of what Loewenstein has called "the bibliographic ego," an "authorial identification with printed writing" in the Early Modern period.[196] A full exposition of these cultural changes is beyond the scope of this paper, but a brief look at some evidence of the emergence of a discourse on the economic worth of printed works will provide some context. An example is found in the epigrams of Thomas Bastard. One of Bastard's poems is about negotiation with a printer over the sale of a manuscript:

> The Printer when I afkt a little summe,
> Huckt with me for my book, and came not nere.
> Ne could my reafon or perfwafion,
> Moue him a whit; though al things now were deere;
> Hath my conceipt no helpe to fet it forth?
> Are all things deere, and is wit nothing worth?[197]

The poet's powers of persuasion in the poem were at once figured as too weak to convince the printer to pay more ("ne could my reason or perswasion, / Moue him a whit") and too valuable not to compete with other "dear" things ("are all things deere, and is wit nothing worth?"). The answer to the question ("is wit nothing worth?") was obviously intended to be no, but when paired with the previous question in the final couplet, the questions posed a puzzling problem—if authors are good with words, why can't they negotiate more effectively: "Hath my conceipt no helpe to set it forth? / Are all things deere, and is wit nothing worthe?" In that context, the problem was not simply that the poet's book was not properly valued by the printer, but that his "wit" was worthless because it is not adequate to "huck" with the printer more effectively. Another way to put that reading would be to say that

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[196] LOEWENSTEIN, *supra* note 24, at 1.

[197] Thomas Bastard, *De Typographo*, epigram 21 *in Chrestoleros, available at* http://lion.chadwyck.com.

the poem was asking whether any discourse other than "hucking" can be valuable in a world driven by economic transactions. Printing had in some sense commodified literary work. Learning how to value literature outside of the patronage system was a key step in the development of author's rights, which began with the posing of questions like Thomas Bastard's.

For hackers in the 1980s, following on the settlement of copyright law in favor of the proprietary software industry, there was also a rise of consciousness that they were in need of a new kind of transaction to facilitate the way they created software. This awareness was epitomized by the founding of the Free Software Foundation by Richard Stallman.[198] Free software found its voice in Stallman's early writings, such as the GNU Manifesto, published in 1985, shortly after the distribution of GNU EMACS.[199] The GNU Manifesto included both ethical and pragmatic arguments for the open distribution of software, and was a clarion call of opposition to proprietary software.[200] On the ethical side, Stallman wrote that "I consider that the Golden Rule requires that if I like a program I must share it with other people who like it. Software sellers want to divide users and conquer them, making each user agree not to share with others. I refuse to break solidarity with other users in this way."[201] On the pragmatic side, Stallman pointed out the virtues of efficiency offered by free distribution:

> "Once GNU is written, everyone will be able to obtain good system software free, just like air. This means much more than just saving everyone the price of a Unix license. It means that much wasteful duplication of system programming effort will be avoided. This effort can go instead into advancing the state of the art."[202]

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[198] For an account of how disputes over the application of copyright to software, in particular Gosmacs, pushed Stallman to found the Free Software Foundation, *see* WILLIAMS AND STALLMAN, supra note 12, at 104–05.

[199] *Id.*

[200] Richard Stallman, *The GNU Manifesto*, GNU OPERATING SYSTEM (Sept. 27, 1983), www.gnu.org/gnu/manifesto.html.

[201] *Id.*

[202] *Id.*

Stallman also articulated that collaborative use and modification of source material were intrinsic to the hacker ethos: "copying all or parts of a program is as natural to a programmer as breathing, and as productive. It ought to be as free."[203] The emergence of this voice, like the emergence of a "bibliographic ego" in the Early Modern period, was a key step in the recognition of beliefs and behaviors that have essentially formed a new culture of copyright in free software.

We have seen that there were a number of common factors in the rise of each alternative transaction, including a shifting regulatory system, resistance in that system to the way in which hackers and authors wanted to create the copyrightable works in question, and the emergence of a new consciousness of the needs of creators. It is worth acknowledging that the needs of hackers in the twentieth century and the needs of authors in the seventeenth were different, even opposed—as authors were seeking to attain more exclusive control over their works and hackers were looking to protect the inclusive nature of their communities—but nonetheless, the pioneering authors who transacted their way into the Stationers' Register and the hackers of the free and open source movement share a fundamental resistance to the *status quo* of the copyright regime of their time. In both cases, the copyright regime favored a nascent industry that controlled a new market. All that remains is to question what effect the alternative transaction had on that favored industry.

IV. THE POWER OF ALTERNATIVE TRANSACTIONS

This section of the Article will analyze the effects of the alternative transaction on the status quo. In each case, the alternative transaction demonstrated to the parties that alternative dispositions of intellectual property rights were pragmatically workable in their market. As we will see, in the case of authors' rights, the printing industry embraced the form of these transactions to such an extent that it eventually supported authors' rights as an alternative to exclusive stationers' copyright, when the latter became politically unviable. The power of the alternative transaction was in bringing forward authors as stakeholders who had been under-recognized by the regime of stationers' copyright. Authors' contracts helped to make authors more visible to copyright policy. In the case of the free and open source

[203] *Id.*

software movement, the success of open source software indicates that there are segments of the software market that have embraced the open source approach. In these segments, users have the opportunity to contribute to the continuing creation of the software licensed to them, rather than merely to consume it. The open question is whether these licenses will prove powerful enough to make users more visible to copyright policy.

A. PARADISE LOST FOR PRINTERS?: THE BIRTH OF AUTHORS' COPYRIGHT

We know so little about the circumstances surrounding the extant examples of authors' transactions, and there are so few recorded transactions, that it is difficult to make a case for a clear causative relationship between these alternative transactions and the evolution of copyright law in favor of authors' rights. It can be argued, however, that authors' transactions were likely influential in demonstrating that authors and printers could, as a practical matter, negotiate with each other in ways that allowed authors some form of rights beyond those in the physical manuscript.

There is evidence that authors' transactions persisted over a long period of time and became more complex. We have one valuable example in the form of the publication agreement for John Milton's *Paradise Lost* in 1667, which has survived.[204] The agreement between Milton and the printer-publisher Samuel Simmons provided for a complete sale of "all that Booke, Copy, or Manuscript of a Poem intituled Paradise lost. . . . Together with the full benefitt, proffitt, and advantage thereof, or which shall or may arise thereby."[205] Compensation for the assignment of the copy, however, was structured in layers, with an upfront payment on signing, followed by a stream of up to three more payments of five pounds each, not unlike royalties, to be triggered by the completion of up to three impressions of no more than fifteen hundred copies each.[206] The layered compensation gave

[204] Kirschbaum, *supra* note 18, at 80.

[205] The agreement is reprinted with a facsimile of the seal and the signature by proxy for Milton in DAVID MASSON, 6 THE LIFE OF JOHN MILTON 509–511 (1880). For a detailed history of the agreement, including the context of the career of Milton's printer, *see* Peter Lindenbaum, *Milton's Contract*, *in* THE CONSTRUCTION OF AUTHORSHIP 175 (Martha Woodmansee & Peter Jaszi, eds., 1994).

[206] Lindenbaum, *supra* note 205, at 176–77.

Milton a share of what might be called the "contingent value" of the publication of the manuscript. While this is not exactly what we've been terming an alternative transaction, since it was not a reservation of rights in the author, it does structure Milton's compensation in a way that gives him a share in the upside of the publication and likely a greater return on his investment in the poem than the simple sale of the physical manuscript would have offered. We know that the first impression of the poem did sell out, as Milton's receipt for the five-pound payment has survived.[207] The sophistication of the transaction in its treatment of the author owes something to the model of the alternative transactions discussed here, which pointed the way for authors to retain greater control over the publication of their works.

There is a yet more complex example of an author's transaction made by Henry More in 1675 for the publication of a collection of his Latin theological works, *Henrici Mori Cantabrigiensis Opera Theologica.*[208] We know about the terms of the publication agreement because More described them to a friend in a letter that has survived.[209] The deal was structured so that More's profit would come from copies he sold himself.[210] The total print run was limited to 525 copies.[211] He was given twenty-five copies without charge, apparently in remuneration for permission to print the manuscript.[212] In addition, the publisher offered him two alternatives: either, (1) to commit to buying one hundred copies at fifteen shillings a piece (25% off the retail price), on the chance that he could sell them all for a profit of five shillings per copy (twenty-five pounds total), or, (2) to make no commitment, but buy only as many copies at sixteen shillings a piece (20% off the retail price) as he discovered he could sell, for a profit of four shillings per copy (which would make twenty pounds total on one

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[207] Kirschbaum, *supra* note 18, at 80.

[208] R. B. McKerrow, *A Publishing Agreement of the Late Seventeenth Century*, s4-XIII THE LIBRARY 184 (1932). McKerrow quotes More's description of the deal and analyzes it. The description of the transaction in this paragraph derives from that analysis. *See also* PATTERSON, *supra* note 20, at 66–67 (describing the same transaction).

[209] McKerrow, *supra* note 208, at 184.

[210] *Id.* at 185.

[211] *Id.* at 184.

[212] *Id.*

hundred copies).[213] He opted to take on the commitment to buy one hundred copies and thus risked some loss in the venture.[214] It isn't known whether he was able to recoup his investment, but the transaction is a remarkable glimpse at an author working as a partner in the publication venture, an arrangement that would not have been allowed in the early years of the Stationer's Company.[215] Here the author has bargained beyond control of the work after publication, for a role in the publication itself.

With the Statute of Anne in 1710, the concept of a limited author's copyright was introduced.[216] The Statute of Anne sustained the stationer's copyright that already subsisted in published works (but limited it to twenty-one more years) and conferred on authors of unpublished works or their assignees a transferable statutory copyright for fourteen years following the date of first publication, with a right of renewal for a second term of fourteen years, which would return to the author if he was still living on expiration of the initial term.[217] Patterson notes that "the radical change in the statute, however, was not that it gave authors the right to acquire copyright—a prerogative until then limited to members of the Stationers' Company—but that it gave that right to all persons."[218] In particular, Patterson makes the remarkable observation that, throughout the statute, the term "'author' was always used alternatively with the terms 'purchaser of copy,' 'proprietor of copy,' 'bookseller,' or 'assignee.'"[219] The Statute of Anne, then, was perhaps less the triumph of the author than the triumph of licensing. Copyright had never been more freely assignable. It cannot be without significance, however, that authors were at last listed in the statute among the parties to these transactions and given a guaranteed place at the bargaining table, not only at the licensing or assignment of the initial copyright term, but again, should the author still be living when the renewal term accrued.

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[213] *Id.* at 185.

[214] *Id.*

[215] *See supra* note 87 and accompanying text.

[216] PATTERSON, *supra* note 20, at 13.

[217] *Id.* at 145–46; SIEBERT, *supra* note 2, at 249.

[218] PATTERSON, *supra* note 20, at 145.

[219] *Id.*

It is a commonplace of copyright histories to note that the Statute of Anne was not the result of an authors' lobby.[220] Rather, the stationers themselves pushed for passage of the Statute of Anne.[221] When they were unable to get the licensing acts that protected their monopoly renewed following the last expiration in 1694, because the stationers' monopoly on copyright had become politically unviable, they argued that a copyright act was necessary to "encourage" authors to write.[222] It is also often noted that the true motivation for the stationers to lobby on behalf of the authors was that authors would have to assign their rights to stationers in order to monetize their copyrights.[223] The history of the alternative transactions discussed here, however, colors their motivations in a slightly different way. The evidence of their previous negotiations with authors suggests that stationers were willing to lobby for a form of author's copyright because their previous experience with alternative transactions (and the agreements like that made by Milton and More) demonstrated that assignment of authorial rights would be pragmatically workable. That is, the arguments pointing toward the needs of authors in the stationers' petitions were not a mere sham, but on some level, the voice of experience. This is one way that authors might have become visible to Parliament, through the stationers' arguments, as a party that could help to break up the stationers' monopoly that had become so unpopular.

Finally, it should be noted that the reasons the stationers' monopoly had fallen from favor were cultural as much as they were political. The cultural effects of the alternative transactions discussed here mattered in part because literary culture informed copyright policy. When the House of Commons listed its reasons for declining to renew the Licensing Act, they included that the stationers "have an Opportunity to enter a Title to themselves, and their Friends, for what

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[220] *See, e.g.,* SIEBERT, *supra* note 2, at 248 n. 47.

[221] For an account of lobbying efforts that includes quotation from a petition by the stationers that cites the "great Discouragement of Persons from writing Matters" and requests a "Bill, for the securing Property in such Books, as have been, or shall be, purchased from, or reserved to, the Authors thereof," *see* PATTERSON, *supra* note 20, at 142.

[222] *Id.*

[223] *See, e.g.,* COHEN ET AL., *supra* note 162, at 22.

belongs to, and is the Labour and Right of, others."[224] The idea that labor and a property right should go hand-in-hand invokes the logic of Locke's labor desert theory, which had only recently been published.[225] While the statement did not explicitly name authors as the "others" to whom the title should belong, the implication is clear: the assumption regarding how best to support the creation of printed works had begun to shift. Rather than privileging the labor of printers, the House of Commons perceived the labor of authors as deserving the control and profit of its product. Alternative transactions like the ones discussed here helped to make that shift in perception possible, as authors could be seen enforcing rights in something more than the manuscript and, eventually, participating in post-publication profits. This change in copyright culture also led to a change in the legal framework, in large part because it was a change in the legal framework that the printing industry embraced**.**

B. THE FUTURE OF OPEN SOURCE

So, if it is true that the author's place in the market for copies helped to seal his place in copyright policy, what does that mean for the role given to users in free software licenses? The final possibility posed by the analogy between the alternative transactions in authors' copyright and open source software, then, is that open source licenses are also the thin edge of a wedge that points not only to a new copyright culture, in which the rights of users are given more emphasis, but also to a new legal framework for software development or possibly other expressive works. The force of the analogy is not enough to resolve the debate, but I think it does suggest one of the factors that will be key in the resolution: the extent to which the software industry (and other content-providing industries) embraces the open source model. Just as it was the stationers who ultimately lobbied for authors' copyright, a change in the statutory norm for

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[224] PATTERSON, *supra* note 20, at 139 (quoting 1 HOUSE OF LORDS MANUSCRIPTS, 1693-95, (n.s.), 540).

[225] *See* JOHN LOCKE, TWO TREATISES OF GOVERNMENT 127–140 (Mark Goldie ed., Everyman 1993)(1689). Locke concludes, "and thus, I think, it is very easy to conceive without any difficulty, how labour could at first begin a title of property in the common things of nature." *Id.* at 140. Locke likely wrote the Second Treatise of Government between 1681 and 1683, and published it in 1689. Mark Goldie, *Introduction* to TWO TREATISES OF GOVERNMENT, xii, xxi (Mark Goldie ed., Everyman 1993).

software development would likely require the backing of major portions of the software industry.

The beauty of the free software license, however, is that it does not require statutory change in order to grow its market share. "Copyleft" licenses will be more influential the more users choose to adopt software distributed under a "copyleft" license, because any derivative works based on such software, assuming the license is enforced, will also be distributed under a "copyleft" license.[226] Even when the free software license in question is not a strong "copyleft" license, the terms of the license facilitating collaboration re-shape the industry. Two of the most successful open source projects, the Apache Software Foundation and the Android Open Source Project do not use a strong "copyleft" license.[227] Instead, they use the Apache Software License 2.0, a permissive license that allows any derivative works developed by the licensee to be distributed under different license terms.[228] In its own way, the choice of the Apache license for the Android Open Source Project shows how the diversity of free and

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[226] See *infra*, text accompanying notes 46–49.

[227] *See Licenses*, ANDROID, http://source.android.com/source/licenses.html (last visited Nov. 19, 2013) (providing the Android Open Source Project license); *Licenses*, THE APACHE SOFTWARE FOUNDATION, http://www.apache.org/licenses/ (last visited Nov. 19, 2013) (providing the Apache Software Foundation license).

[228] Distribution of modifications under different license terms, however, does require compliance with a few conditions, such as the retention of the original copyright and attribution notices in the parts of the work that remain in the derivative work. For the text of the license, *see Apache License, Version 2.0*, THE APACHE SOFTWARE FOUNDATION, http://www.apache.org/licenses/LICENSE-2.0 (last visited Nov. 19, 2013). For a summary of the reasons that the Android Open Source Project prefers the Apache Software License 2.0 (ASL2.0) over the Lesser GPL (LGPL), *see Licenses*, ANDROID, http://source.android.com/source/licenses.html (last visited Nov. 19, 2013). For instance, since the software is shipped in a "static system image" on a smart phone handset, it is difficult to comply with the LGPL requirement that the software also be made available in source code. Requiring that consumers who buy phones may modify the software and reverse engineer it, as the LGPL would, is also unpalatable for device makers. While the Android website does not list it, another advantage of the ASL2.0 is the clause aimed at disincentivizing patent litigation by licensees: "If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed." *Apache License, Version 2.0*, THE APACHE SOFTWARE FOUNDATION, sec. 3, http://www.apache.org/licenses/LICENSE-2.0 (last visited Nov. 19, 2013).

open source licenses accommodate the software market, in the sense that the more permissive terms of the Apache license were better tailored for partnership with the handset industry.[229]

Some scholars remain skeptical as to the extent of the influence of open source culture outside of "traditional software markets."[230] Others have argued that the phenomenon of free software should lead to a new regulatory environment that would provide "the institutional tools that would help thousands of people to collaborate without appropriating their joint product."[231] What seems certain is that free and open source software licenses have played an important role in making a change in the regulatory environment thinkable at all. The analogy between the alternative transactions here most powerfully suggests that the future of open source is in enabling a shift in the focus of copyright policy from the needs of sole authors to the needs of collaborative users.

V. CONCLUSION: HOW DO CULTURES OF COPYRIGHT CHANGE?

In each of the pivotal moments in the evolution of copyright discussed in this paper, a complex convergence of factors has resulted in a shift in the culture of copyright. In each case, the emergence of an "alternative transaction," by which copyright holders opted for less control of a work then the current regime allowed, played an important role in demonstrating that the works in question could be produced under the alternative arrangements, that the shift in beliefs and behaviors was pragmatically workable in the marketplace. Such alternative transactions are likely to arise when there is ambiguity in the application of the law, particularly where the existing legal regime causes resistance for the creators of the works in question, and a new consciousness on the part of those creators that a new kind of transaction is needed to facilitate and compensate their work. Ultimately, the real power of each of these alternative transactions was in bringing forward stakeholders who had been under-recognized by the legal and cultural norms. In the sixteenth and seventeenth

[229] *See* discussion above, *supra* note 228.

[230] *See* Mark Lemley & Ziv Shafir, *Who Chooses Open Source Software?* (John M. Olin Program in Law and Economics, Stanford Law School, Working Paper No. 382, 1, Oct. 2009), *available at* http://ssrn.com/abstract=1495982.

[231] Benkler, *supra* note 13, at 446.

centuries, the rise of the "bibliographic ego," spearheaded by humanist scholars, was accompanied by the emergence of transactions in which authors retained rights that the then-current copyright regime would not have afforded them. In the twentieth and twenty-first centuries, hackers have challenged the application of an exclusionary rights regime to software with free and open source software licenses that facilitate the inclusion and collaboration of users. The history explored here shows how these alternative transactions acted as the laboratory for the production of public goods, influencing copyright culture and informing copyright policy through experimentation with the disposition of rights. The analogy between the contracts for authors' rights and free software licenses over time suggests that we are in the midst of a rise of the collaborative user every bit as important to the culture of copyright as was the rise of the author.

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