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## AUTHOR AUTONOMY AND ATOMISM IN COPYRIGHT LAW

*Molly Shaffer Van Houweling*\*

*June 18, 2009, DRAFT*

*The power and ubiquity of personal computing and the Internet have enabled individuals—even impecunious amateurs—to create and communicate in ways that were previously possible only for well-funded corporate publishers. These individual creators are increasingly harnessing copyright law—insisting on ownership of their rights and controlling the ways in which those rights are licensed to others. Facebook users are demanding ownership of their online musings. Scholars are archiving their research online and refusing to assign their copyrights to publishers. Independent musicians are streaming their own songs and operating without record companies. Organizations like the Free Software Foundation are encouraging individual authors to manage their copyrights in innovative ways.*

*When the myriad individual authors empowered by today’s ubiquitous digital technology claim, retain, and manage their own copyrights, they exercise a degree of authorial autonomy that befits the Internet Age. But they simultaneously contribute to a troubling phenomenon I call “copyright atomism”—the proliferation, distribution, and fragmentation of the exclusive rights bestowed by copyright law, and of idiosyncratic permutations of those rights. The information and transaction costs associated with atomism could hamper future generations of technology-fueled creativity and thus undermine the very purpose of copyright: to encourage the creation and dissemination of works of authorship for the ultimate benefit of the public.*

*In this project I aim to place contemporary copyright atomism in historical and doctrinal context by documenting copyright law’s previous encounters with proliferated, distributed, and fragmented copyright ownership. Along the way I examine how copyright law has encouraged and discouraged atomism and managed its consequences. This history demonstrates the enduring relevance of my concerns within copyright policy, highlights countervailing interests, and provides a framework for thinking about how to alleviate the unfortunate consequences of atomism—and how not to.*

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\* Assistant Professor of Law, University of California, Berkeley. Thanks to Julie Alimi-Londner, Carolina Gomez, Jade Hoffman, David Kayvanfar, and Jeslyn Miller for excellent research assistance, and to Catherine Albiston, Greg Alexander, Michelle Anderson, Ken Bamberger, Eric Biber, James Boyle, David Caron, Michael Carroll, Julie Cohen, Holly Doremus, Aaron Edlin, Lee Anne Fennell, Catherine Fisk, Andrew Guzman, Kinch Hoekstra, Amy Kapczynski, Lawrence Lessig, Joe Liu, Michael Madison, Steve Maurer, Peter Menell, Rob Merges, Michael Meurer, Justin McCrary, Adam Mossoff, Melissa Murray, Erin Murphy, Anne O’Connell, Pam Samuelson, Joe Sax, Jason Schultz, Paul Schwartz, Suzanne Scotchmer, Howard Shelanski, Henry Smith, Sarah Song, Stewart Sterk, Eric Talley, Jan Vetter, Phil Weiser, Felix Wu, Tim Wu, Fred Yen, Jonathan Zittrain, and participants in the Law and New Institutional Economics Workshop at the University of Colorado Law School, the Columbia Law School IP Colloquium, the Property Works in Progress Conference at the University of Colorado Law School, the Cyberlaw Colloquium at American University, and the Berkeley Law IP Scholarship Seminar, for their helpful comments and conversations.

I serve on the Board of Directors of Creative Commons, an organization discussed below. The views expressed about Creative Commons are my own.

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*Molly Shaffer Van Houweling*

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## **Introduction**

The power and ubiquity of personal computing and the Internet have enabled individuals—even impecunious amateurs—to create and communicate in ways that were previously possible only for well-funded corporate publishers.<sup>1</sup> Most observers have celebrated this

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<sup>1</sup> Similar developments are occurring in the realm of technological innovation, where tools that facilitate collaboration by technologically-empowered individuals have been championed for their potential to democratize innovation. See, e.g., ERIC VON HIPPEL, *DEMOCRATIZING INNOVATION 1* (2005) (“When I say that innovation is being democratized, I mean that users of products and services—both firms and individual consumers—are increasingly able to innovate for themselves. User-centered innovation processes offer great advantages over the manufacturer-centric innovation development systems that have been the mainstay of commerce for hundreds of years.”); see also Robert Merges, *Intellectual Property Rights and the New Institutional Economics*, 53 *VAND. L. REV.* 1857, 1861-62 (2000) (“Reversing the trend of the past century, small specialty firms appear to be increasing their share of overall R&D. Whereas in the past, large firm vertical integration into R&D-intensive markets was the norm, the economic landscape today appears to be much more diverse.”)

Note that this development may not be new, so much as a return to the pattern that prevailed before the Industrial Revolution. John Quiggin and Dan Hunter observe that “in the pre-industrial period, the role of the amateur in the production of innovation was

development, noting its potential to diversify and democratize media and creative culture. In the popular press, buzzwords like “user-generated content,” “Web 2.0,” “crowdsourcing,” “citizen journalism,” and “the Living Web” describe and hype this phenomenon.<sup>2</sup> Legal scholars have been among the cheerleaders: praising technology’s potential to facilitate “cheap speech,”<sup>3</sup> to promote “semiotic democracy,”<sup>4</sup> and to enhance individual autonomy by “giv[ing] individuals a significantly greater role in authoring their own lives.”<sup>5</sup>

Much of the creativity empowered by digital technology incorporates existing copyrighted works, and is thus regulated by copyright law.<sup>6</sup> For example, Brian Burton (AKA DJ Dangermouse) spent two weeks working with \$400 worth of software on a computer

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obvious.” John Quiggin & Dan Hunter, *Money Ruins Everything*, 30 HASTINGS COMM. & ENT. L.J. 203, 213 (2008).

<sup>2</sup> See, e.g., Mary Madden & Susannah Fox, *Pew Internet Project Backgrounder: Riding the Waves of Web 2.0* (Oct. 5, 2006), available at [http://www.pewinternet.org/pdfs/PIP\\_Web\\_2.0.pdf](http://www.pewinternet.org/pdfs/PIP_Web_2.0.pdf) (providing a short intellectual history of the “Web 2.0” concept; Tim O’Reilly, *What is Web 2.0* (Sept. 30, 2005), available at <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>; JEFF HOWE, CROWDSOURCING: WHY THE POWER OF THE CROWD IS DRIVING THE FUTURE OF BUSINESS (2008); DAN GILLMOUR, WE THE MEDIA: GRASSROOTS JOURNALISM BY THE PEOPLE, FOR THE PEOPLE (2004) (describing citizen journalism); Steven Levy & Brad Stone, *The New Wisdom of the Web*, NEWSWEEK (Apr. 3, 2006) (describing the living web).

*Time* Magazine captured the spirit by naming “You” its person of the year in 2006, “for seizing the reins of the global media, for founding and framing the new digital democracy, for working for nothing and beating the pros at their own game.” Lev Grossman, *Time’s Person of the Year: You*, TIME (Dec. 13, 2006), available at <http://www.time.com/time/magazine/article/0,9171,1569514,00.html>.

There have been skeptics as well. In a particularly biting critique, Andrew Keen argues that democratization of media “despite its lofty idealization, is undermining truth, souring civic discourse, and belittling expertise, experience, and talent...[I]t is threatening the very future of our cultural institutions.” ANDREW KEEN, THE CULT OF THE AMATEUR: HOW TODAY’S INTERNET IS KILLING OUR CULTURE 15 (2007); see also NICHOLAS CARR, THE BIG SWITCH: REWIRING THE WORLD, FROM EDISON TO GOOGLE 157 (2008) (“We may find that the culture of abundance being produced by the World Wide Computer is really just a culture of mediocrity—many miles wide but only a fraction of an inch deep.”).

<sup>3</sup> Eugene Volokh’s work, written a decade before the Web 2.0 hype, was especially prescient. See Eugene Volokh, *Cheap Speech and What it Will Do*, 104 YALE L.J. 1805 (1995).

<sup>4</sup> See, e.g., William W. Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L. REV. 1203, 1217-18 (1998); Madhavi Sunder, *IP3*, 59 STAN. L. REV. 257, 276-80 (2006); Anupam Chander, *Whose Republic?*, 69 U. CHI. L. REV. 1479, 1491 (2002); Anupam Chander & Madhavi Sunder, *Everyone’s a Superhero: A Cultural Theory of “Mary Sue” Fan Fiction as Fair Use*, 95 CAL. L. REV. 597 (2007); Jedediah Purdy, *A Freedom-Promoting Approach to Property*, 72 U. CHI. L. REV. 1237, 1278-79 (2005). See generally Sonia K. Katyal, *Semiotic Disobedience*, 84 WASH. U. L. REV. 489 (2006).

<sup>5</sup> YOCHAI BENKLER, THE WEALTH OF NETWORKS 9 (2006); see also LAWRENCE LESSIG, FREE CULTURE 37 (2004); Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1, 37 (2004); Yochai Benkler, Lecture, *Freedom in the Commons: Towards a Political Economy of Information*, 52 DUKE L.J. 1245, 1246-47 (2003).

<sup>6</sup> See generally Robert P. Merges, *Locke Remixed* :-), 40 U.C. DAVIS L.REV. 1259, 1260-61 (2007) (observing that “many remixes infringe copyrights.”).

in his bedroom to create “The Grey Album,”<sup>7</sup> which combines vocals from Jay-Z’s “The Black Album,” with beats sampled from the Beatles’ “White Album.” Rolling Stone Magazine declared the result “an ingenious hip-hop record that sounds oddly ahead of its time.”<sup>8</sup> EMI, the record company that owns the rights to the Beatles’ sound recordings, declared it a copyright infringement and sent cease and desist letters to Burton and others who distributed “The Grey Album” in record stores and over the Internet.<sup>9</sup> Although it did not ultimately pursue litigation, EMI’s claim was not implausible. The Sixth Circuit subsequently held in *Bridgeport Music, Inc. v. Dimension Films* that the unauthorized sampling of three unrecognizable notes from a sound recording amounts to copyright infringement.<sup>10</sup>

Although some copyright holders are more enthusiastic—or at least less litigious—about “remix culture” that uses their works,<sup>11</sup> clashes between iterative creativity and copyright are increasingly common, as the rise of creativity- and communication-empowering technology has coincided with expansion of the scope and duration of copyright protection, and with new regulatory schemes designed to foster copyright-holder self-help. Critics have decried this increased propertization of creative works as a “second enclosure movement”<sup>12</sup> that limits the ability of creative individuals to harness new technology to build upon existing cultural artifacts.<sup>13</sup> Yochai Benkler

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<sup>7</sup>Simon Houpt, “FrankenArt: The Mix and Mash Future,” [http://www.theglobeandmail.com/servlet/ArticleNews/TPStory/LAC/20040515/FRANK\\_ENCULTURE15/Entertainment/](http://www.theglobeandmail.com/servlet/ArticleNews/TPStory/LAC/20040515/FRANK_ENCULTURE15/Entertainment/); Corey Moss, “Grey Album Producer Explains How He Did It,” MTV News, [http://www.mtv.com/news/articles/1485693/20040311/jay\\_z.jhtml?headlines=true](http://www.mtv.com/news/articles/1485693/20040311/jay_z.jhtml?headlines=true).

<sup>8</sup> Lauren Gitlin, “DJ Makes Jay-Z Meet Beatles,” *Rolling Stone* (Feb. 5, 2004), <http://www.rollingstone.com/news/story?id=5937152>.

<sup>9</sup>“Beatles Remix is Banned by EMI,” *The Daily Telegraph* (Feb. 17, 2004).

<sup>10</sup> *Bridgeport Music, Inc. v. Dimension Films*, 383 F.3d 390 (6<sup>th</sup> Cir. 2004); *see also* *Grand Upright Music, Ltd. v. Warner Brothers Records, Inc.*, 780 F.Supp. 182 (S.D.N.Y. 1991); *Jarvis v. A & M Records*, 827 F.Supp. 282 (D.N.J. 1993). *But cf.* *Newton v. Diamond*, 329 F.3d 591 (9<sup>th</sup> Cir. 2003), amended 388 F.3d 1189 (9<sup>th</sup> Cir. 2004) (holding copying of three notes of a musical composition di minimus).

<sup>11</sup> Merges, *Locke Remixed*, *supra* note \_\_\_, at 1262 (speculating that “practical considerations such as enforcement costs and consumer demand for less-than-fully enforced rights are more important to the future of remix culture than the formal legal rules governing digital content. . . . Individual remixers who experiment with digital music sampling, video and photo modifications, and homemade enhancements to computer games have essentially no real worries about legal liability.”).

<sup>12</sup> JAMES BOYLE, *THE PUBLIC DOMAIN* 42-53 (2008); James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 66-SPG LAW & CONTEMP. PROBS. 33 (2003). *But cf.* Robert P. Merges, *A New Dynamism in the Public Domain*, 71 U. CHI. L. REV. 183, 184 (2004) (suggesting that perhaps we should be “a bit less anxious about the consequences of what has been called the ‘second enclosure movement,’” because “the increasing importance of the public domain may represent a partial self-correcting impulse in the IP system”).

<sup>13</sup> *See, e.g.*, Boyle, *supra* note \_\_\_, at 49 (“The point is, then, that there is a chance that a new (or old, but under-recognized) method of production could flourish in ways that seem truly valuable—valuable to free speech, innovation, scientific discovery, the wallets of consumers, what William Fisher calls ‘semiotic democracy,’ and perhaps, valuable to the balance between joyful creation and drudgery for hire. True, it is only a chance. True, this theory’s ambit of operation and its sustainability are uncertain. But why would we want to foreclose it? That is what the recent expansions of intellectual property

worries, for example, that “information production could be regulated so that, for most users, it will be forced back into the industrial model, squelching the emerging model of individual, radically decentralized, and nonmarket production and its attendant improvements in freedom and justice.”<sup>14</sup>

Technologically-empowered individual creators, potential casualties of a regulatory regime that proprietizes the ingredients of iterative creativity, are also among the beneficiaries of copyright law’s largess. Copyright’s statutory intricacies and subtle jurisprudence may be most accessible to corporate publishers and their lawyers. But the exclusive rights that copyright bestows are available to anyone capable of capturing creativity on a piece of paper or in a computer’s memory. Individual creators are in fact increasingly harnessing copyright themselves—insisting on ownership of their rights and controlling the ways in which those rights are licensed to others. Facebook users are demanding ownership of their online musings.<sup>15</sup> Scholars are archiving their research online and refusing to assign their copyrights to publishers. Independent musicians are streaming their own songs and operating without record companies. Organizations like the Free Software Foundation, Creative Commons, and Columbia University’s Keep Your Copyrights project are encouraging individual authors to manage their copyrights in innovative ways.<sup>16</sup>

When the myriad individual authors empowered by today’s ubiquitous digital technology claim, retain, and manage their own copyrights, they exercise a degree of authorial autonomy that befits the Internet Age. But they simultaneously contribute to a troubling phenomenon I call “copyright atomism”—the proliferation,

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threaten to do.”); Quiggin & Hunter, *supra* note \_\_\_, at 246-47 (“There exist some obvious ways in which solicitude for commercial copyright industries can have a detrimental effect on the amateur sphere. ...[T]he blogosphere could not exist in its current, vibrant form if copyright owners actually enforced copyright in relation to all of the millions of infringements that take place on it every day. It is not an answer to say that copyright owners do not usually bother to sue....It would be better to establish a principle that, for example, non-commercial use of copyright material (as on a blog or in other amateur content forms) is not copyright infringement....”).

<sup>14</sup> BENKLER, *supra* note \_\_\_, at 26; *see also, e.g.,* Purdy, *supra* note \_\_\_, at 1279 (“The rise of sophisticated and inexpensive digital technology enables individuals to ‘rip, mix, and burn’ visual elements of the common culture for satirical, editorial, or simply expressive purposes. The same technologies, however, also facilitate monitoring by copyright owners to block newly possible expressive uses. Conjoined with expanded copyright protection, these developments mean that people are prohibited from exercising substantial capacities they would otherwise enjoy, that is, their expressive and political freedom may be significantly restricted.”). *But see* Robert P. Merges, *The Concept of Property in the Digital Era*, 45 Hous. L. Rev. 1239, 1267 (2008) (arguing that “amateur culture in all its forms and all its myriad glories can and will thrive even in the presence of strong property rights”).

<sup>15</sup> Brian Stelter, *Facebook’s Users Ask Who Owns Information*, N.Y. TIMES (Feb. 16, 2009), available at [http://www.nytimes.com/2009/02/17/technology/internet/17facebook.html?\\_r=1&scp=2&sq=facebook&st=cse](http://www.nytimes.com/2009/02/17/technology/internet/17facebook.html?_r=1&scp=2&sq=facebook&st=cse).

<sup>16</sup> *See generally* Tim Wu, *On Copyright’s Authorship Policy*, 2008 U. CHI. LEGAL F. 335 (2008).

distribution, and fragmentation of the exclusive rights bestowed by copyright law, and of idiosyncratic permutations of those rights.

Copyright atomism is noteworthy and troubling. In the tangible property context, proliferation, broad distribution, and fragmentation, of property rights have been associated with search, tracing, assembly, negotiation, and other information and transaction costs that can prevent efficient resource use. Michael Heller's work has drawn our attention, in particular, to resource under-use that can arise when property rights fragment and proliferate into an "anti-commons."<sup>17</sup> Thomas Merrill and Henry Smith focus on the information cost externalities imposed by the proliferation of customized and idiosyncratic property rights.<sup>18</sup> Clarisa Long<sup>19</sup> and Henry Smith<sup>20</sup> have applied this information cost analysis to intellectual property; and in my own work I have examined how these costs may be imposed in the intangible property context by emerging intellectual property licensing practices.<sup>21</sup>

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<sup>17</sup> E.g. MICHAEL HELLER, *THE GRIDLOCK ECONOMY* 13 (2008); Michael A. Heller, *The Boundaries of Private Property*, 108 *YALE L.J.* 1163 (1999); Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 *HARV. L. REV.* 621 (1998); Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 *SCI.* 698 (1998); see also James M. Buchanan & Yong J. Yoon, *Symmetric Tragedies: Commons and Anticommons Property*, 43 *J.L. & ECON.* 1, 1-13 (2000); Norbert Shulz, Francesco Parisi & Ben Depoorter, *Fragmentation in Property: Towards a General Model*, 158 *J. INSTITUTIONAL & THEORETICAL ECON.* 594, 594-613 (2002); Frank I. Michelman, *Ethics, Economics, and the Law of Property*, in *ETHICS, ECONOMICS, AND THE LAW* 3, 15 (J. Roland Pennock & John W. Chapman eds., 1983). *But cf.* Robert P. Merges, *Contracting Into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 *CAL. L. REV.* 1293 (1996) (raising the possibility that strong and complicated property rights can motivate private actors to create exchange institutions that lower transaction costs that thus avoid the tragedy of the anticommons); Merges, *New Dynamism*, *supra* note \_\_\_, at 190 ("Private action may offset some of the effects of an anticommons, making it less necessary to act on the normative agenda of anticommons theory, an agenda that involves restricting property rights and carries obvious risks and costs."); F. Scott Kieff, *Coordination, Property, and Intellectual Property: An Unconventional Approach to Anticompetitive Effects and Downstream Access*, 56 *EMORY L.J.* 327, 394 (2006) ("While at first blush (given the way Heller presents the anticommons problem), it would seem that property rights are more a part of the problem than a part of the solution, property rights actually provide individuals with the economic motivation to engage in trades with each other. Indeed, the easier it is for the holder of a property right to engage in such a trade and the greater the value that the individual can extract from the trade...., the greater the motivation and ability of the individual to engage in it."); Lee Anne Fennell, "Slices and Lumps," available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1106421](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1106421) (describing both costs and benefits of fragmentation).

<sup>18</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 *YALE L.J.* 1 (2000); Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 *COLUM. L. REV.* 773 (2001).

<sup>19</sup> Clarisa Long, *Information Costs in Patent and Copyright*, 90 *VA. L. REV.* 465 (2004).

<sup>20</sup> Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 *YALE L.J.* 1742 (2007).

<sup>21</sup> Molly Shaffer Van Houweling, *The New Servitudes*, 96 *GEO. L.J.* 885 (2008).

The costs associated with atomism threaten the underlying purpose of copyright<sup>22</sup>—to spur the creation and dissemination of works of authorship for the ultimate benefit of the public.<sup>23</sup> The history of the acclaimed documentary series “Eyes on the Prize” has become a notorious example of this problem in the pre-Internet era. After it was initially broadcast on PBS in 1987, many of the permissions that the filmmakers had acquired to use copyrighted photos, video footages, and music expired. It took years of work and hundreds of thousands of dollars to clear the myriad rights necessary to re-release the series three decades later.<sup>24</sup> Now that technology has made many other aspects of producing and distributing creative works easier and less costly, the difficulty and expense associated with atomistic copyright loom even larger in comparison. For example, an award-winning 2004 documentary film that cost only \$218 to make using a home computer ultimately involved over \$200,000 in copyright permission fees for the various bit of music, images, and video it incorporated,<sup>25</sup> prompting a *New York Times* feature on the costs of documentaries to observe that “[t]oday, anyone armed with a video camera and movie-editing software can make a documentary. But can everyone afford to make it legally?”<sup>26</sup>

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<sup>22</sup> *But cf., e.g.*, Robert P. Merges, *Justifying Intellectual Property* (draft manuscript 2009) (arguing that the basic foundations of intellectual property are individual autonomy and freedom).

<sup>23</sup> *Cf.* U.S. COPYRIGHT OFFICE, REGISTER OF COPYRIGHTS, REPORT ON ORPHAN WORKS 3 (2006); William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 477 (2003) (describing the tracing costs involved in identifying the copyright holders of old works).

<sup>24</sup> See “‘Eyes on the Prize’ Civil Rights Series Returns to PBS” (NPR Talk of the Nation Transcript Sept. 26, 2006); PBS News, *Eyes on the Prize*, Produced by Blackside, Returns to PBS on American Experience (Jan. 14, 2006), available at [http://www.pbs.org/aboutpbs/news/20060114\\_eyesontheprize.html](http://www.pbs.org/aboutpbs/news/20060114_eyesontheprize.html); Katie Dean, “Cash Rescues Eyes on the Prize,” *Wired* (Aug. 30, 2005), available at <http://www.wired.com/entertainment/music/news/2005/08/68664> (“The 14-part series, which chronicles the history of the civil rights movement in America, has been blocked from television rebroadcast and DVD release by a thicket of copyright restrictions on the hundreds of photos, music tracks and video clips used in its making.”); PATRICIA AUFDERHEIDE & PETER JASZI, *UNTOLD STORIES: CREATIVE CONSEQUENCES OF THE RIGHTS CLEARANCE CULTURE FOR DOCUMENTARY FILMMAKERS* 19 (2004), available at [http://www.centerforsocialmedia.org/files/pdf/UNTOLDSTORIES\\_Report.pdf](http://www.centerforsocialmedia.org/files/pdf/UNTOLDSTORIES_Report.pdf).

<sup>25</sup> Nancy Ramsey, *The Hidden Cost of Documentaries*, N.Y. TIMES, Oct. 16, 2005; Ian Youngs, *Micro-Budget Film Wows Cannes*, BBC NEWS, May 18, 2004, available at <http://news.bbc.co.uk/2/hi/entertainment/3720455.stm> (May 18, 2004); Robert S. Boynton, *How to Make a Guerrilla Documentary*, N.Y. TIMES, July 11, 2004.

<sup>26</sup> Ramsey, *supra* note \_\_\_\_.

Sometimes the difficulty of clearing rights can stifle iterative creativity altogether. For example, rapper Chuck D and other members of the hip-hop group Public Enemy were innovators of musical sampling in the late 1980s, when they released their first record, *It Takes a Nation of Millions to Hold Us Back*. In a 2004 interview, Chuck D described the musical sampling techniques employed on that record: “[W]e were taking thousands of sounds. If you separated the sounds, they wouldn’t have been anything—they were unrecognizable. The sounds were all collaged together to make a sonic wall.” Interview with Chuck D by Kembrew McLeod, documented in Kembrew McLeod, *How Copyright Law Changed Hip Hop*, STAY FREE! MAGAZINE issue 20, available at [http://www.stayfreemagazine.org/archives/20/public\\_enemy.html](http://www.stayfreemagazine.org/archives/20/public_enemy.html); see also HELLER, *THE GRIDLOCK ECONOMY*, *supra* note \_\_\_\_, at 13. But copyright holders soon began suing

Atomistic copyright also threatens larger-scale projects made possible by new technologies for assembling massive collections of creative works. The legal challenges encountered by the Google Book Search Project highlight the assembly costs associated with taking advantage of new technologies for data storage and processing. When it was not even conceivable that entire library collections could be copied, stored, and indexed into one comprehensive resource, the costs associated with assembling the rights to do such a thing—costs imposed in part by the atomistic nature of copyright—were theoretically large but practically inconsequential. Now, technological advances have made the transaction costs associated with atomistic copyright the but-for barrier to some of these endeavors.<sup>27</sup>

Copyright atomism and its harmful consequences can be avoided or ameliorated by legal rules, and by ad hoc or institutionalized private ordering in the shadow of legal rules.<sup>28</sup> Counteracting atomism can come with its own costs, however. For example, atomism is reduced when ownership of copyrighted works is consolidated in the hands of publishers, employers, or other intermediaries. But this anti-atomism mechanism can deny authors autonomous control over their creations.<sup>29</sup> Consolidation can also

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samplers (and prevailing in court, *e.g.* *Grand Upright Music, Ltd. v. Warner Brothers Records, Inc.*, 780 F.Supp. 182 (S.D.N.Y. 1991); *Jarvis v. A & M Records*, 827 F.Supp. 282 (D.N.J. 1993)), leading Public Enemy and other hip-hop artists to change their sound. As Chuck D explained: “Public Enemy was affected because it is too expensive to defend against a claim. So we had to change our whole style . . . .That entire collage element is out the window.” McLeod, *supra* n. \_\_; *see also* HELLER, *THE GRIDLOCK ECONOMY*, *supra* n. \_\_, at 13-16. *See generally* Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 *STAN. L. REV.* 485, 497 (2004) (“[M]any would-be users will never get to the negotiation stage: the cost of identifying rightsholders, without the benefit of a registry, and other without any reliable indication of current ownership from the work itself (either because the work is not marked with notice or because rights have been transferred without recordation), will often be enough to deter the use.”)

<sup>27</sup> *See generally* Peter S. Menell, *Knowledge Accessibility and Preservation Policy for the Digital Age*, 44 *HOUS. L. REV.* 1013, 1049 (2007) (“Affording copyright owners the right to block digital archiving, indexing, and Boolean search services dramatically raises the costs of preservation and access.”).

<sup>28</sup> *See generally* Merges, *Intellectual Property Rights and the New Institutional Economics*, *supra* note \_\_, at 1866 (urging intellectual property scholars to apply new institutional economics to examine “[u]nder what conditions . . . voluntary transactional institutions [will] take shape”); Merges, *Contracting Into Liability Rules*, *supra* note \_\_ (documenting the emergence of institutions for voluntary exchange of intellectual property rights); Paul M. Schwartz, *Property, Privacy, and Personal Data*, 117 *HARV. L. REV.* 2055, 2110 (2004) (observing that “[i]nstitutions shape the legal and social structure in which property is necessarily embedded”).

<sup>29</sup> *See generally*, Jane C. Ginsburg, *The Concept of Authorship in Comparative Copyright Law*, 52 *DEPAUL L. REV.* 1063, 1090 (2003) (“Whatever the practical merits of the work for hire doctrine, the constitutional text supplies no grounding for it.” “Without belittling the role of investment in common and civil law copyright regimes, those regimes’ moral center, their *raison d’être*, remains human creativity. To answer the question I posed at the outset (“Who is an author in copyright law?”), in copyright law, an author is (or should be) a human creator who, notwithstanding the constraints of her task, succeeds in exercising minimal personal autonomy in her fashioning of the work. Because, and to the extent that, she moulds the work to her vision (be it even a myopic one), she is entitled not only to recognition and payment, but to exert some artistic

stifle competition, promote censorship, and make copyright distributively unfair.

In this project I aim to place contemporary copyright atomism in historical and doctrinal context by documenting copyright law's previous encounters with proliferated, distributed, and fragmented ownership. Along the way I examine how copyright law has encouraged and discouraged atomism and managed its consequences. This history demonstrates the enduring relevance of my concerns within copyright policy, highlights countervailing interests, and provides a framework for thinking about how to alleviate the unfortunate consequences of atomism—and how not to.

The article proceeds in four parts. Part I offers a three-part definition of “atomism” and illustrates it with highlights from Anglo-American copyright history. Part II is a more in-depth exploration of that history, tracing atomism from medieval monasteries to the eve of the Internet era. Part III uses this history to better understand the contemporary environment, which I argue is characterized by an unprecedented degree of copyright atomism and by the failure of mechanisms that have been deployed in the past to alleviate its costs. Part IV offers two preliminary ideas for addressing atomism while avoiding the pitfalls of the past.

### I. Three Dimensions of Atomism

I use the term “atomism” (and its opposite, “holism”) to describe the combined effect of three different features of the copyright system: (1) how many works are subject to copyright ownership (*proliferation*); (2) how many different people own copyrights (*distribution*); and (3) how many and what types of separately-owned rights exist within each copyright bundle (*fragmentation*). Copyright becomes more atomistic as proliferation, distribution, and fragmentation increase. Countervailing developments that result in more holistic copyright include subject matter limitations and prerequisites (versus proliferation), ownership consolidation (versus distribution), and unification and standardization (versus fragmentation) of the rights attached to each protected work.

An atomistic copyright system is crowded with protected works, rights, and rights-holders. This crowding can raise information and transaction costs for participants in the creative marketplace, who may have to track down and negotiate with many far-flung rights holders regarding many separate rights. Valuable uses of copyrighted

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control over it.”); FINAL REPORT OF THE AD HOC WORKING GROUP ON U.S. ADHERENCE TO THE BERNE CONVENTION 178 (1986) (comments of John M. Kernochan, Nash Professor of Law, Columbia University), *reprinted in* 10 COLUM.-VLA J.L. & ARTS 513, 690 (1986) (“[T]aking authorship of a work too readily from its creator-in-fact will often run counter to the personal link between the individual creator and the created work which underlies the *droit moral* notions of ... credit and integrity, to say nothing of the U.S.'s own historical objectives and policies of promoting science and the useful arts through rewards to actual creators, as articulated in the Constitution.”).

works may therefore be prohibitively difficult and/or expensive. But holistic—that is, limited, consolidated, and unified—copyright has its own disadvantages. Foremost among these is the way in which holistic copyright can constrain the autonomy of individual authors, who may prefer (at least where their own creations are concerned) to have more rights, which they can exercise independently, trading in customized bundles of fragmented sticks. Relatedly, holistic copyright can limit competition, diversity of expression, and distributive fairness if the marketplace is dominated by the holders of a few consolidated and unified bundles of rights.

Over time, the U.S. copyright system has tended generally toward greater atomism. This is easiest to see on the dimension of proliferation—where formal eligibility requirements (registration and the like) have been eliminated and the subject matter of copyright has expanded along with the rise of new forms of creativity (photography, motion pictures, computer software, etc.). Policy makers and participants in the copyright system have at times been attentive to the costs imposed by atomization, however, and proliferation has therefore coincided with occasional countervailing moves toward holism on other dimensions. Consider, for example, the development in the late nineteenth and early twentieth centuries of the work-for-hire doctrine, which created the legal fiction that consolidating employers (instead of distributed individual employees) are the authors and therefore the owners of works created in their employ. While copyrights continued to proliferate in this period, the work-for-hire doctrine limited the distribution of those copyrights and thus counteracted some of the atomizing effects of proliferation; although many copyrighted works were created, it was no longer necessary to seek permission from every individual creator in order to exploit them.

As this example illustrates, copyright atomism and its consequences can only be accurately assessed by considering the combined effect of—and interactions between—developments along every dimension of atomism. But before taking on that task, I will expand briefly on the three dimensions of atomism with additional examples drawn from the history of Anglo-American copyright.

### **A. Proliferation**

This dimension of atomism refers to the number of works that are subject to copyright ownership. More protected works means more proliferation, and more proliferation means more atomism. By contrast, limits on copyrightable subject matter, or on the production of copyrightable works, make copyright relatively holistic.

**PROLIFERATION: how many works are subject to ownership?**



Change on the proliferation dimension can result from changes in the legal definition of copyrightable subject matter. For example, U.S. copyright was initially limited to books, charts, maps, and analogous printed matter; it proliferated with the addition of new categories of protectable subject matter (e.g. musical compositions, photographs, motion pictures, sound recordings, computer software). Ownership proliferated even more significantly when a series of changes starting with the Copyright Act of 1976 removed the technical prerequisites for acquiring copyrights (registration, notice, and other formalities). Copyright now applies automatically to every fixed and original work that falls within its expansive subject matter.

Change on this dimension can also result from changes in the creative environment. For example, the number of copyrighted works grew along with the growth of the U.S. publishing industry during the nineteenth century—although the formality requirements that still existed then meant that not every new work was protected. More dramatically, today’s digital technology is producing an explosion of creativity; and because copyright is now automatic, this technological change is also producing massive proliferation in the number of copyrighted works.

**Highlights of Proliferation-Related Developments**

Expansion of protectable subject matter, e.g. to musical compositions in 1831, photographs in 1865, motion pictures in 1912, sound recordings in 1971, any “work of authorship” in 1976.	↑
Automatic protection afforded by 1976-1992 statutory changes removing mandatory formalities.	↑
Increased creative output, e.g. 19 <sup>th</sup> century publishing, 21 <sup>st</sup> century user-generated content.	↑

## B. Distribution

This dimension of atomism refers to the number of different people or entities who qualify as copyright owners. Copyright ownership can be consolidated among a limited pool of eligible owners or distributed among many different people. Highly distributed ownership makes copyright relatively atomistic while highly consolidated ownership makes copyright relatively holistic.



Change on the distribution dimension can result from changes in the legal allocation of initial copyrights. For example, both the first U.S. Copyright Act of 1790 and its predecessor the English Statute of Anne distributed initial ownership of copyrights to individual authors—abandoning the previous English practice of consolidating ownership in the members of the exclusive Stationers’ Company of publishers and booksellers. Subsequent amendments to the U.S. Copyright Act have retained the initial allocation of ownership to authors. But, as noted above, the “work-for-hire” doctrine codified in the 1909 Act sometimes deems employers and other corporate entities to be the authors of works prepared by individual people, thus consolidating initial copyright ownership as a matter of law.

The degree of consolidation of copyright ownership is also a function of legal rules governing alienability of copyrights. For example, under the Stationers’ Company scheme, exclusive rights were both initially assigned to stationers and could only be transferred to other members of the guild, thus maintaining consolidated ownership. By contrast, the Statute of Anne and the Copyright Act of 1790 both permitted transfer of copyrights to anyone, expanding the potential distribution beyond the universe of authors who were eligible for initial ownership (although the practical effect was different, as we will see in a moment). Free alienability—and thus the potential for distribution of copyright ownership to anyone in the world—remains a feature of contemporary copyright, but the Copyright Act of 1976 imposed a new formal limitation on transfers with its written instrument requirement.

Legal rules about initial ownership and transferability can thus contribute to consolidation or distribution of ownership. But

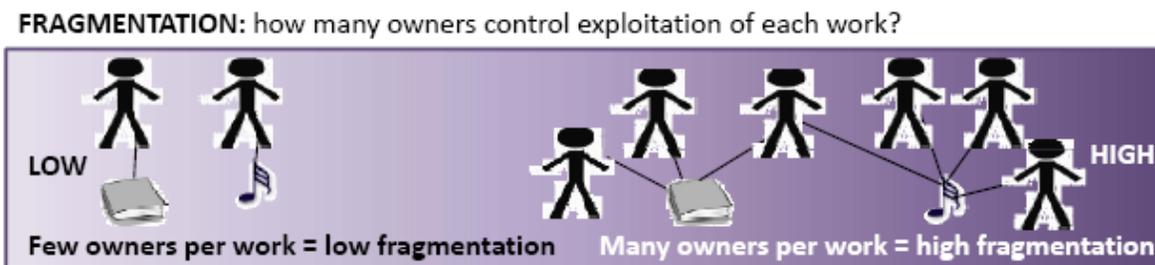
ultimately the degree of consolidation/distribution depends on private ordering in the shadow of those rules. For example, although both the English Statute of Anne and the U.S. Copyright Act of 1790 allocated initial ownership to authors and allowed subsequent transfer to anyone, the continued market power of the Stationers' Company meant that English authors who wanted their books to be published had little choice but to assign their copyrights to the same publishers in whom ownership had been consolidated in the previous era; and the internal institutional practices and norms of the Stationers' Company limited subsequent transactions. In the United States, assignments from authors to publishers also had the effect of reconsolidating ownership, but to a lesser extent because the publishing industry was more competitive. Today, authors still often assign their copyrights to publishers and other consolidating intermediaries. Indeed, institutions like ASCAP have as their primary purpose consolidating copyright ownership (or at least control) in order to overcome the complications associated with broad distribution. But as technology puts the tools of publishing at the fingertips of anyone with a computer and Internet access, authors are increasingly retaining ownership and control of their copyrights in their own atomistic hands.

**Highlights of Distribution-Related Developments**

Initial copyright allocated to authors instead of publishers in Statute of Anne and 1790 Copyright Act.	
18 <sup>th</sup> and 19 <sup>th</sup> century assignment practices reconsolidated ownership in publishers in England and (to a lesser extent) the United States. 20 <sup>th</sup> century institutions like ASCAP exercise consolidated control.	
1909 codification of work-for-hire doctrine allocated some initial ownership to employers and consigning parties instead of to individual authors.	
Digital age technology allows more authors to create and publish independently and to retain their copyrights.	

### C. Fragmentation

In contrast to distribution, which refers to the number of owners in the copyright system as a whole, fragmentation refers to the number of people to whom ownership of any single creative artifact and the work of authorship embedded in it can be divided (and thus, importantly, the number of people from whom permission must be sought before others can exploit the work). To put it another way, this dimension of atomism refers to how many and what types of separately-owned rights exist within each copyright bundle. Fragmented ownership makes copyright relatively atomistic while unified ownership makes copyright relatively holistic.



At the holistic extreme, only the person in lawful possession of the tangible object (a book, for example) on which the intangible work (the story told on its pages) is embedded can control exploitation of the work. Under such a scheme, an author could prevent copying of her novel by maintaining possession of the manuscript. The law in operation here is not really the law of copyright at all, but simply the law of personal property as applied to artifacts of creativity. This “proto-copyright” governed in England until the crown began to grant monopoly printing privileges (initially to individual printers, later to the Stationers’ Company) in the sixteenth century—privileges that were linked to but separable from ownership of physical manuscripts.

The Stationers’ Company regime thus caused a change on the fragmentation dimension by introducing fragmentation between the tangible object and the intangible right to publish its contents. The Statute of Anne and the Copyright Act of 1790 followed suit. This basic fragmentation persists: I own the books on my bookshelf but not their copyrights. Over time there have been marginal adjustments to the relationship between chattel ownership and copyright ownership, however. For example, the Copyright Act of 1909 codified the judicially-developed “first sale doctrine,” which gives lawful owners of tangible copies the right to distribute those copies publicly (a right that is otherwise among the exclusive intangible rights of the copyright holder). First sale thus unifies chattel ownership with one of the sticks in the bundle of intangible copyrights. More recently, the unifying potential of the doctrine has

been eroded to some extent by copyright holder attempts to re-fragment rights through private ordering.

Beyond the basic fragmentation between tangible and intangible ownership, intangible rights can themselves be further fragmented between multiple owners. Fragmentation of intangible rights is partly a function of how the law deals with transfers of existing copyrights to multiple people (through assignment, bequest, and inheritance). It is also a function of how the law allocates initial ownership in situations where multiple people have contributed to a single work—where a lyricist and composer work together on a song, for example, or where a writer’s story is adapted for a movie, or where an editor combines multiple contributions into an anthology. As I explain in detail below, the relationship between these authors is governed by statutory and judge-made rules about “joint works,” “collective works,” and “derivative works.” Fragmentation has ebbed and flowed with adjustments to these rules. For example, the joint authorship doctrine developed in the United States in the early twentieth century largely in the context of musical works to which both a lyricist and composer had contributed. The judge-made doctrine provided that where multiple authors had worked “in furtherance of a common design,” the default rule was that each had undivided rights to exploit the entire work (a relationship analogized to a tenancy in common in real property law). Although this rule granted ownership rights to multiple people, it was less fragmenting as a practical matter than granting exclusive rights in the lyrics to one person and the rights to the music to another, such that no one has the rights necessary unilaterally to exploit the entire combined work or to authorize others to do so. This rule of undivided co-ownership for joint works persists; but, as I explain below, its scope has changed along with shifting definitions of who qualifies as a joint author.

Note that the work-for-hire doctrine also has a role to play in modulating fragmentation. I described it above as a consolidating doctrine because it makes an employer the owner of many separate works prepared by individual employees (e.g. photographs taken by employees of a stock-photography company). But it can also operate to unify ownership where multiple employees have labored together on a single work (e.g. a crew working on a movie), or on components that might both stand on their own and be combined into a larger work (e.g. encyclopedia entries or newspaper articles).<sup>30</sup>

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<sup>30</sup> See generally Robert P. Merges, *Intellectual Property and the New Institutional Economics*, *supra* note \_\_\_, at 1859 (explaining that “[a] commercially viable product will often be assembled from a number of components. One or more of these components may be covered by IPRs, but it is not always true that a complete product will be covered by one, and only one, comprehensive IPR. . . . In the “copyright industries,” a single, comprehensive copyright often covers a discrete product, such as a novel or scholarly monograph. Nonetheless, multi-component works are far from uncommon. Indeed, motion pictures, sound recordings, and magazines all have multiple “components” or inputs.”).

Fragmentation is a function not only of the initial allocation of rights among multiple potential claimants, but also of subsequent transfers. The fragmenting effect of such transfers depends in part on rules governing whether a single copyright can be divided into separate rights to exploit the work in different ways (by copying, publicly performing, adapting, etc). For example, the U.S. Copyright Act of 1909 granted authors multiple exclusive rights—to copy, adapt, perform, etc. But under the “indivisibility” doctrine, courts interpreted the Act to forbid assignment of any of these rights individually. The copyright had to be assigned as a unified bundle or not at all. The Copyright Act of 1976 expressly abandoned indivisibility, providing that the exclusive rights could be divided and owned separately in fragmented sticks. In practice, fine-grained division of copyrights has become more common with the growth of new technologies for exploiting single copyrighted works in multiple ways.<sup>31</sup> What is more, copyright owners are adopting innovative ways of transferring and licensing their copyrights that make the fragments idiosyncratic (and sometimes incompatible) as well as numerous.

A final aspect of fragmentation is temporal: whether there can be both present and future interest holders of a given intangible right. The Statute of Anne and the Copyright Act of 1790 built temporal fragmentation into the law by granting initial and renewal terms, which could be separately transferred so as to create both present and (contingent) future interests held by different people. In practice, however, combined transfers of both the initial and contingent renewal terms (typically from an author to a publisher) often resulted in unified ownership by a single assignee. The 1976 Act eliminated the dual-term system but re-injected a different mechanism for temporal fragmentation by creating a non-waivable termination of transfer right that allows authors (or their statutory heirs) to reclaim transferred copyrights decades later.

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<sup>31</sup> Because there is no definition that sets of boundaries of what counts as a “work,” fragmentation of this sort can alternatively be understood as protection of numerous “microworks.” See Justin Hughes, *Size Matters (Or Should) in Copyright Law*, 74 *FORDHAM L. REV.* 575, 575 (2005) (“In our new recombinant culture, digitization allows very small bits and pieces to be copied and reused with extreme ease, while the Internet makes unprecedented amounts of such bits and pieces instantly available for such reuse. If the res of independent copyright protection shrinks to a ‘microwork,’ this recombinant culture is burdened.”).

### Highlights of Fragmentation-Related Developments

Stationers' Company regime separates tangible and intangible rights.	↑
First sale doctrine codified in 1909.	↓
Undivided ownership by joint authors established in early 20 <sup>th</sup> century case law.	↓
1976 Act eliminates indivisibility doctrine.	↑
Temporal fragmentation introduced by dual terms in Statute of Anne and 1790 Act and reinforced by termination of transfer alternative in 1976.	↑

#### D. Atomism Across Multiple Dimensions

The historical highlights just surveyed help to illustrate the three dimensions of atomism. But an accurate assessment of atomism and its effects cannot focus on any one dimension in isolation. So in the following sections I examine proliferation, distribution, and fragmentation (and countervailing holistic developments) as they have combined and interacted during several different eras in Anglo-American copyright law. My goal is to pinpoint and examine episodes that generate insights about today's relatively atomistic copyright environment and about how we might mitigate the costs of atomism without unduly sacrificing authorial autonomy and other important copyright values.

## II. Atomism in Historical Perspective

### A. The Pre-Modern Era: Proto-Copyright and the Stationers' Company

Before the emergence of copyright as we now understand it, as the intangible right to control reproduction and certain other uses of works of authorship, a much more limited form of control was

available to the owners of manuscripts, who could limit access to (and thus copying of) the physical manifestations of authorship.<sup>32</sup> For example, it was common during the Middle Ages for monasteries to charge fees for permission to copy manuscripts in their collections.<sup>33</sup> As literary historian Mark Rose observes, “this practice might be thought to imply a form of copyright, and yet the bookowner’s property was not a right in the text as such but in the manuscript as a physical object made of ink and parchment.”<sup>34</sup> Thus, once a manuscript was copied, its owner lost control of the text embodied in it. This proto-copyright was valuable, however, in an age before mechanical reproduction, when an owner could charge a premium based on the superior quality of his manuscript compared to error-ridden copies.<sup>35</sup>

It is difficult even to apply notions of proliferation and distribution to this proto-copyright scheme because it lacked the fragmentation that is the essence of copyright: fragmentation between the right to possess a book and the right to exploit its intellectual content. Ownership of the book was unified with ownership of the work.<sup>36</sup> There were no separate intangible rights that could proliferate and be widely distributed.<sup>37</sup>

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<sup>32</sup> Cf. *Wheaton v. Peters*, 33 U.S. 591, 595 (1834) (“That an author, at common law, has a property in his manuscript, and may obtain redress against anyone who deprives him of it. . . cannot be doubted.”).

<sup>33</sup> MARK ROSE, *AUTHORS AND OWNERS: THE INVENTION OF COPYRIGHT* 9 (1995) (“In the Middle Ages the owner of a manuscript was understood to possess the right to grant permission to copy it, and this was a right that could be exploited, as it was, for example, by those monasteries that regularly charged a fee for permission to copy one of their books.”); 2 GEORGE HAVEN PUTNAM, *BOOKS AND THEIR MAKERS DURING THE MIDDLE AGES* 481 (1897) (“I have spoken of certain monasteries becoming the resort of literary pilgrims on account of their ownership of some treasured manuscript handed down from an earlier generation. When, as was frequently the case, the production of copies of such a text was prohibited altogether, or was permitted only to members of the monastery itself, we have an example of a copyright control of the earlier kind, a control resting upon the ownership not of the text but of the parchment upon which the text had been placed.”); *id.* at 484 (“The first copyright known to Europe of the Middle Ages may therefore be considered as that which inhered in the Common Law control of property in the manuscript.”). Cf. Jane C. Ginsburg, “*Une Chose Publique*”? *The Author’s Domain and the Public Domain in Early British, French and US Copyright Law*, 63 *CAMBRIDGE L.J.* 636, 639 (2006) (“[S]ome monasteries resorted to a kind of technological measure to prevent unauthorized access and copying: they chained the books to the walls.”).

<sup>34</sup> ROSE, *supra* note \_\_\_, at 9.

<sup>35</sup> See generally PUTNAM, *supra* note \_\_\_, at 482-84 (describing how monasteries “came to understand that gain could be secured for their monastery chest by conceding for pay the privilege of making one or more copies of their codex”).

<sup>36</sup> Not only was there no notion of a separate right to exploit intangible works, but chattel ownership was unified ownership as well—held by the person in possession of the object and not subject to future interests and other types of fragmentation. See 2 WILLIAM BLACKSTONE, *COMMENTARIES ON THE LAWS OF ENGLAND* 398 (1765-69) (“By the rules of the ancient common law, there could be no future property, to take place in expectancy, created in personal goods and chattels; because, being things transitory, and by many accidents subject to be lost, destroyed, or otherwise impaired, and the exigencies of trade requiring also a frequent circulation thereof, it would occasion perpetual suits and quarrels, and put a stop to the freedom of commerce, if such limitations in remainder were generally tolerated and allowed.”); see also *Van Horne v. Campbell*, 100 N.Y. 287 (1885) (“In the early period of the law, as is well known, future estates in personal

This crude system of proto-copyright befitted the Middle Ages, when literacy rates were low and reproduction of books was laborious, rare, and imperfect.<sup>38</sup> But increasing literacy and the invention and spread of the printing press in Europe in the second half of the fifteenth century dramatically expanded the potential market for copies of books. Holistic proto-copyright was not very useful to commercial printers who wanted to exploit this market by releasing multiple copies of books to the public instead of guarding them in monasteries or preparing custom hand-crafted copies of original manuscripts.<sup>39</sup>

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property were not permitted. It was originally held that a gift of personalty for life was an absolute gift, so as to invalidate any further limitations. . . .”). Cf. Henry Hansmann & Reinier Kraakman, *Property, Contract, and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. 373, 384 (2002) (“Of all verification rules, possession is the most primitive and commonplace. In theory, verification could be based only on possession. . . . The advantages of this system are obvious. It is easy to understand, cheap to administer, and generally unambiguous. It is, in fact, reasonable close to the approach taken to most chattels.”); Merrill & Smith, *supra* note \_\_\_, at n. 63 and accompanying text (“Personal property is restricted to fewer available forms of ownership than real property. A number of standard reference works state that personal property is subject to the same elaborate structure of forms that applies to estates in land (including future interests). Yet the case law does not fully support this broad proposition.”).

<sup>37</sup> And of course books themselves did not easily proliferate and their ownership was not widely distributed before the advent of the printing press. *But cf.* AUGUSTINE BIRRELL, SEVEN LECTURES ON THE LAW AND HISTORY OF COPYRIGHT IN BOOKS 47 (1899) (“[T]hat books were dear in the eleventh century and are (some of them) cheap at the end of the nineteenth is certain enough, but that there were books bought, books read, and books collected before the movable types were invented is also certain, and ought not to be forgotten when the origin of copyright is the subject matter under consideration.”).

<sup>38</sup> See generally Ginsburg, “*Une Chose Publique*”?, *supra* note \_\_\_, at 638 (“[T]he printing press gave rise to the conditions to which copyright and its predecessor privileges responded: the mass, and potentially uncontrolled, reproduction of copies of works, and the eventual rise of a population capable of reading them. Back in the days of the medieval scriptoria, copies were few and readers almost as scarce. Control over access to the physical copy limited the number of copies that could be made.”). Note, however, that there was a commercial book trade in England even before the first printing press was established there. See JOHN FEATHER, PUBLISHING, PIRACY AND POLITICS: A HISTORICAL STUDY OF COPYRIGHT IN BRITAIN 10 (1994). But “[t]he concept of copyright was meaningless in this trade, and there was no reason why it should have developed. The stationer or scrivener recovered his investment in copying a manuscript as soon as it was sold. In what was essentially a bespoke trade, this was an almost immediate return.” *Id.*

<sup>39</sup> FEATHER, PUBLISHING, *supra* note \_\_\_, at 10 (“The introduction of printing into the trade led to fundamental changes in the economics of book production. The producer (later to be called the ‘publisher’, but at this time normally the owner of the printing shop) had to invest in a press and in type; he was an employer of skilled labour, and he needed a stock of consumables such as ink and paper. All of this represented a substantial capital investment, on which the return was necessarily slow. When printing became the principal means of production, as it had done in southern Europe by 1480 at the latest, the trade became highly competitive, and the printers began to look for a means of protecting their investments.”); ROSE, *supra* note \_\_\_, at 9 (“Printers needed assurance that they would be able to recoup their investment, and so some system of trade regulation was necessary if printing was to flourish.”); PUTNAM, *supra* note \_\_\_, at 485 (“When the first printers began their work,” “[a] property control of some kind was essential in order to justify the expenditure and the labour required to bring the manuscript into print . . . .”); BIRRELL, *supra* note \_\_\_, at 55 (“[The printers and booksellers] from the beginning of things were alert to make a little money out of their

In the fifteenth and sixteenth centuries, European governments obliged the emerging printing industry (and in some cases enhanced their own control over the literature reaching their citizens) by granting individual printers exclusive privileges to print specified books or classes of books.<sup>40</sup> These privileges amounted to exclusive rights to copy, which insulated their recipients from competition even after they had distributed physical copies of the covered books. They are thus aptly characterized as “the earliest genuine anticipations of copyright.”<sup>41</sup>

The English Crown began to grant such privileges (in the form of “letters patent”) in the early sixteenth century for some specified books and classes of books. But most printing in England remained outside the scope of these initial patents.<sup>42</sup> Control over the growing printing trade became much more comprehensive as a result of several events in the late 1550s. In 1557, Queen Mary and King Phillip granted a charter to the Stationers’ Company—the guild into which members of the London book trade had first organized themselves in 1403.<sup>43</sup> The 1557 charter forbade printing by anyone other than Stationers’ Company members (and those lucky few with letters patent from the Crown).<sup>44</sup> In 1559, Queen Elizabeth both

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calling, and their best chance of doing this was to secure for themselves the exclusive right of printing particular books.”).

<sup>40</sup> ROSE, *supra* note \_\_\_\_, at 12.

<sup>41</sup> ROSE, *supra* note \_\_\_\_, at 12 (“The earliest genuine anticipations of copyright were the printing privileges, which first appeared in fifteenth-century Venice.”); *see also* Pamela Samuelson, *Copyright and Freedom of Expression in Historical Perspective*, 10 J. INTEL. PROP. L. 319, 323 (2003) (“The first copyright era—which I will term its ‘pre-modern’ phase—arose out of practices and policies of the English Stationers’ Guild in the late 15<sup>th</sup> and early 16<sup>th</sup> centuries.”).

<sup>42</sup> FEATHER, PUBLISHING, *supra* note \_\_\_\_, at 11; LYMAN RAY PATTERSON, *COPYRIGHT IN HISTORICAL PERSPECTIVE* 42 (1968); BENJAMIN KAPLAN, *AN UNHURRIED VIEW OF COPYRIGHT* 2-3 (1967) (“Caxton founded his press in Westminster in 1476, and soon afterward the Crown began to take an acute interest in this dangerous art and to assert prerogative rights regarding it. A Royal Printer appeared in 1485, and from 1518 onward came a stream of royal grants of privileges and patents for the exclusive printing of particular books or books of stated kinds.”).

<sup>43</sup> *See generally* WARD, ET AL., IV *THE CAMBRIDGE HISTORY OF ENGLISH AND AMERICAN LITERATURE*, chapter XVIII § 1, *available at* <http://www.bartleby.com/cambridge/> (“The guild or fraternity of scribes and others connected with the production and sale of books, which had been formed in 1403, had, with the increased trade in books and the introduction of printing, developed in course of time into the craft of Stationers; and, as all persons carrying on any business in the city of London connected with the book-trade were required to become members of the craft, this association had long exercised considerable influence in fixing and controlling trade customs.”).

<sup>44</sup> Royal Charter of the Company of Stationers (1557), *available at* [http://www.copyrighthistory.org/cgi-bin/kleioc/0010/exec/ausgabe/.%22uk\\_1557%22](http://www.copyrighthistory.org/cgi-bin/kleioc/0010/exec/ausgabe/.%22uk_1557%22) (“Besides we will, grant, ordain, and appoint for ourselves and the successors of us the foresaid Queen that no person within this our realm of England or the dominions of the same shall practise or exercise by himself or by his ministers, his servants or by any other person the art or mistery of printing any book or any thing for sale or traffic within this our realm of England or the dominions of the same, unless the same person at the time of his foresaid printing is or shall be one of the community of the foresaid mistery or art of Stationery of the foresaid City, or has therefore licence of us, or the heirs or successors of us the foresaid Queen by the letters patent of us or the heirs or successors of us the

confirmed the Stationers' Company charter and imposed a regime of censorship under which all books were to be licensed by royal censors, with the Stationers' Company enlisted to help enforce the licensing requirement.<sup>45</sup> A series of Star Chamber Decrees and parliamentary Licensing Acts would reinforce Queen Elizabeth's injunction over the course of the century that followed.<sup>46</sup>

The Stationers' Company in turn adopted internal rules for distributing to its members the exclusive rights (referred to as "copies") to print individual books, for recording those copies in the Company's Register, and for punishing members who printed books for which they had not registered their copies.<sup>47</sup> These internal company rules were enforced, and disputes between members were

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foresaid Queen."); *see also* WARD, ET AL., *supra* note \_\_\_, chapter XVIII § 2 ("As a direct consequence of the company's charter, no one, thenceforth, could print anything for sale within the kingdom unless he were a member of the Stationers' company, or held some privilege or patent entitling him to print some specified work or particular class of book.").

On the relationship between letters patent and the Stationers' Company, *see* PATTERSON, *supra* note \_\_\_, at 5-6 ("Although printing patents were not limited to members of the company, stationers were the most frequent grantees."); FEATHER, PUBLISHING, *supra* note \_\_\_, at 20 ("The power of the Stationers' Company as a whole, and of the copy-owning booksellers within it, was further enhanced by the Company's gradual absorption of the rights protected by Letters Patent, thus uniting the older system of copy protection based on the direct use of the Royal Prerogative with the new, and less official, mechanisms developed within the book trade.").

<sup>45</sup> *See* FEATHER, PUBLISHING, *supra* note \_\_\_, at 15 ("In 1559, Elizabeth I issued a set of Injunctions which dealt with the crucial issue of the government and organization of the Church, and it was in this context that rules were made governing the control of the press. No book was to be published unless it was properly licensed by censors appointed by the Crown. The Company was required to police the trade and thus to assist the Crown in the enforcement of the Injunctions against unlicensed printing.").

<sup>46</sup> *See generally* PATTERSON, *supra* note \_\_\_, at 46-47 ("From the Injunctions of 1559 to the final expiration of the Licensing Act of 1662 in 1694, with the exception of a few years . . . , all books printed in England were required to be licensed."); HARRY RANSOM, *THE FIRST COPYRIGHT STATUTE* 5 (1956) ("These dates mark great events or great beginnings: 1476, the establishment of Caxton's press at Westminster; 1557, the first chartering of the 'mystery of Stationers'; 1559, Elizabeth's confirmation of the charter; 1586, the decree of Star Chamber which foreshadowed the definition of literary property; 1601, the reformation of literary privileges; 1637, the last of the Star Chamber decrees, which influenced copyright throughout the following century; 1641, the abolition of Star Chamber; 1649, the first act of Parliament for complete regulation of the press; 1662, a second press-regulation act, . . . ; 1694, the end of Parliamentary press regulation and the licensing system; 1710, the first copyright statute.").

<sup>47</sup> *See* BIRRELL, *supra* note \_\_\_, at 73 ("From the very first two things are plain about the Stationers' Company. First, they kept register books wherein by decree of the Star Chamber, by orders of Parliament, and finally by Act of Parliament all new publications and reprints had to be entered at the date of publication; and [s]econdly, such entries were, by usage of the Company, exclusively made in the name or names of members of the Company. Thirdly, by virtue of such entry, the bookseller, in whose name the entry was made became (in the opinion of the Stationers' Company) the owner, or proprietor, of such book or copy (as they called it), and ought to have the sole printing thereof, presumably forever."); PATTERSON, *supra* note \_\_\_, at 43-44 ("[T]he stationer's copyright was a right recognized among members of the company entitling one who published a work to prevent any unauthorized printing of the same work."); *id.* at 47 ("The stationer's copyright was limited to members of the company . . .").

heard, by the officers of the company (the “Master,” and his deputies or “Wardens”) and its “Court of Assistants.”<sup>48</sup>

As an episode in Anglo-American copyright history, the Stationers’ Company regime (and the system of letters patent with which it overlapped) is notable for introducing fragmentation between intangible rights to publish and tangible rights to possess manuscripts. The available evidence suggests that the exclusive rights the Company bestowed upon individual members were initially tied to physical manuscript ownership: members registered with the Company the titles of manuscripts that they owned (and for which they at least sometimes had paid authors).<sup>49</sup> But registration henceforth served as evidence of ownership of an exclusive intangible property right with an existence independent of any physical object.<sup>50</sup> These were non-possessory rights to intangible works—rights that could be separated such that ownership of a manuscript and ownership of the exclusive right to publish it could be held by different people. This was fragmentation of the most basic sort—the cleavage of tangible and intangible ownership that is now considered the essence of copyright.

With the creation of intangible rights, it now becomes possible to characterize those rights on the other dimensions of proliferation and distribution, and to consider degrees of fragmentation beyond the most basic separation of tangible and intangible rights.

### ***1. Proliferation: How Many Works Are Subject to Ownership?***

English letters patent awarded printing rights to specific works or classes of works. Their coverage became broad, but was never comprehensive. For example, by the mid-1570s there were privileges covering all documents issued by the Crown and a variety of other important categories—including bibles and school books.<sup>51</sup> But the majority of works remained outside the coverage of these classes. Furthermore, the privileges were typically time-limited, such that some subjects escaped their reach upon expiration.

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<sup>48</sup> See PATTERSON, *supra* n. \_\_\_\_, at 32-35.

<sup>49</sup> PATTERSON, *supra* n. \_\_\_\_, at 52; see also KAPLAN, *supra* note \_\_\_\_, at 5 (“Right of copy was the stationer’s not the author’s. Living authors furnished some of the material for the printing mills, and increasingly these manuscripts had to be purchased in a business way . . . ; but upon entry the author dropped away and it was the stationer who had the right of multiplication of copies against others of the Company, which is to say, speaking imprecisely, against all those eligible to print.”); BIRRELL, *supra* note \_\_\_\_, at 82 (“[I]n many cases the author’s copy (that is, the manuscript) had been acquired for a fair consideration. . . .”).

<sup>50</sup> See generally PATTERSON, *supra* note \_\_\_\_, at \_\_\_\_.

<sup>51</sup> FEATHER, PUBLISHING, *supra* note \_\_\_\_, at 12 (“By the mid-1570s, there were similar privileges in primers, prayer books, school-books, service books, almanacs and prognostications, Bibles, New Testaments, the Book of Common Prayer, catechisms, the ABC (the elementary reading book prescribed for general use), the Psalms in metre, Latin grammars, other Latin books and music (and ruled music paper).”).

The Stationers' Company monopoly, by contrast, extended to everything printed<sup>52</sup> and was understood to be perpetual.<sup>53</sup> Even under the more comprehensive system of ownership established by the Stationers' Company, however, there were limits on what was protected as a practical matter. The Company's rules required its members to enter their claims in its Register. Although most scholars of the period have concluded that entry in the Register was neither necessary nor sufficient to establish ownership, it did serve as proof of ownership.<sup>54</sup> And "[t]he absence of an entry in the Register could be fatal to any claim about the ownership of a copy."<sup>55</sup> This registration requirement thus foreshadows later copyright registration systems, discussed below, that would effectively limit proliferation by making registration a prerequisite for protection (and releasing published but un-registered works into the public domain). The effect of non-registration was likely less dramatic during the Stationers' Company era. Rights to an unregistered work might be unenforceable by any individual stationer, but his would-be competitors would themselves be subject to the hurdles of the registration and licensing requirements before they could print such a work. In essence then, every printed work was subject to the Stationers' Company control in one way or another.

## 2. *Distribution: How Many People Own Rights?*

The monopoly control that the Stationers' Company exercised over the English book trade manifested itself in individual rights that the Company allocated to Company members. But distribution was limited to this exclusive guild—a group that numbered only ninety-seven when the charter was issued in 1557<sup>56</sup> and whose growth was controlled with a strict system of apprenticeship and promotion.<sup>57</sup> Rights held by Company members could be and were frequently

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<sup>52</sup> The Charter refers to printing of books or “any thing.” Royal Charter of the Company of Stationers, *supra* note \_\_; *see also* PATTERSON, *supra* note \_\_, at 9 (“Works subject to copyright included not only writings, but also maps, portraits, official forms, and even statutes.”); *id.*, at 55 (“[W]hile books, ballads and pamphlets constitute the great majority of copyrighted works, there are also entries for maps, pictures, bills of lading, and various legal forms, as well as statutes.”).

<sup>53</sup> *See* PATTERSON, *supra* note \_\_, at 13.

<sup>54</sup> *See, e.g.*, FEATHER, PUBLISHING, *supra* note \_\_, at 26-28; PATTERSON, *supra* note \_\_, at 51; *see also id.* at 55-63 (describing the evolution of the registration requirement); PUTNAM, *supra*, note \_\_, at 468 (“These Stationers’ Hall entries were in certain respects similar to the records in the Land Office of a western Territory or in the County Clerk’s office of a State, records which serve as final evidence of the title or ownership of the lands specified.”).

<sup>55</sup> FEATHER, PUBLISHING, *supra* note \_\_, at 26.

<sup>56</sup> Royal Charter of the Company of Stationers, *supra* note \_\_; *see also* WARD, ET AL., *supra* note \_\_, chapter XVIII § 1. By 1577 there were 22 printing-houses in London and 175 “printers and stationers, journeymen and all.” *Id.* § 6.

<sup>57</sup> *See* PATTERSON, *supra* note \_\_, at 33; WARD, ET AL., *supra* note \_\_, chapter XVIII § 6.

transferred and bequeathed,<sup>58</sup> but only among other members of the Company.<sup>59</sup> If a member died without having bequeathed his rights to a fellow member, they were not distributed among his heirs but instead reverted to the Company (which might in turn give them to his widow, but only for her lifetime).<sup>60</sup>

### 3. *Fragmentation: Among How Many People Is Each Work Divided?*

Returning to fragmentation: for each work of authorship there was only one exclusive intangible right during this era—the right to print.<sup>61</sup> But that right was subject to ownership by multiple people.<sup>62</sup> So beyond the basic fragmentation of tangible from intangible ownership discussed above, the intangible right to print could itself be further fragmented among co-owners and there is evidence of fragmented co-ownership in the Register.<sup>63</sup> Consider, for example, this 1641 entry, recording a transfer of a one-half interest in a copy from one stationer to two transferees, Robert Somers and Thomas Cowley: “Assigned over unto them by Stephen Bulkley, by virtue of

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<sup>58</sup> ROSE, *supra* note \_\_\_, at 12 (“Once secured, the right to print a particular book continued forever, and thus a ‘copy’ might be bequeathed or sold to another stationer or it might be split into shares among several stationers.”); PATTERSON, *supra* note \_\_\_, at 5 (“[T]he owner could publish the protected work, or assign, sell or bequeath the copyright, but only in accordance with company regulations.”).

<sup>59</sup> See, e.g., PATTERSON, *supra* note \_\_\_, at 9 (“Of certain facts about the stationer’s copyright we can be relatively certain. As it was granted by the company, limited to members and regulated by company ordinance, a record of it was maintained only in the company registers.”)

<sup>60</sup> See PATTERSON, *supra* note \_\_\_, at 47. The Company practice was to grant a life interest to surviving widows. *Id.* at 48.

<sup>61</sup> See PATTERSON, *supra* note \_\_\_, at 9-11 (“The scope of copyright was the right to publish a work, and no more, for the stationer’s copyright was literally a right to copy.”). *But cf.* CYPRIAN BLAGDEN, *THE STATIONERS’ COMPANY: A HISTORY, 1403-1959*, at 44 (1960) (“The buying and selling of copies became a frequent practice among Stationers, certainly from 1562. As a result of the weakening of the printers’ hold on the trade there was, even earlier, the recognition of two different rights in a book arising from the two main profits to be made from its exploitation; the first was the right to print it and the second was the right to earn what we call a publisher’s profit from it. The selling of a copy by a printer to a bookseller on condition that the former might continue to have the printing of it, and the careful registering of this arrangement, on payment of the normal fee, became quite common in the course of Elizabeth’s reign . . .”).

<sup>62</sup> Rose reports that “the right to print a particular book . . . might be split into shares among several stationers.” ROSE, *supra* note \_\_\_, at 12. And Patterson observes that during this era “[c]opyrights were often owned jointly.” PATTERSON, *supra* note \_\_\_, at 9; see also BIRRELL, *supra* note \_\_\_, at 77 (reprinting an extract from the Stationers’ Company register listing two owners of certain Shakespeare plays).

<sup>63</sup> Feather reports that complex concurrent ownership seemed to increase during the Interregnum following the English Civil War. “[T]here is a noticeable growth in the transfer of shares of copies, as opposed to copies as a whole. In May 1656, for example, William Lee, Daniel Pakemen, Gabriel Bedell and Thomas Collins jointly entered *Reports in the Exchequer*, the official record of the Court of Exchequer for 1606 to 1614; the first two each owner one-third shares and the others one-sixth each. Such complex joint ownership was becoming more common, if not yet usual . . . .” FEATHER, *PUBLISHING*, *supra* note \_\_\_, at 42.

a note under the hand and seale of the said Stephen, one full moiety or halfe of his copie called *The Masse in Latyn & English . . .*”<sup>64</sup>

As fractional interests were transferred and retransferred, the ownership the rights to a single work could get more and more complex, as this 1645 entry creating two one-eighth interests in a single work reveals: “Entered . . . by virtue of an assignment under the hand & seale of John Rothwell . . . the moiety or halfe of the said John Rothwell’s right & Interest in the booke called *An Exposition upon the 4<sup>th</sup> 5<sup>th</sup> 6<sup>th</sup> & 7<sup>th</sup> chapters of JOB*, by Mr. Carrill, the said Mr. Rothwell’s right therein being a fourth pte, of wch the said Mr. Crooke is to have one halfe pte thereof . . .”<sup>65</sup>

This John Rothwell, who had served as Warden of the Company in 1634 and 1638,<sup>66</sup> appears to have been an especially active trader in fractional rights. In 1651 he assigned all his rights to “Mr. Carrill’s works upon JOB,” which by that point amounted to “[a] third pte in the first pte, an eighth pte in ye second pte, an eighth pte in the third pte, and a fourth pte in ye fourth pte thereof.”<sup>67</sup>

What was the practical effect of such finely-fragmented ownership of a single work? The 1681 Company Ordinance suggest that where a work was entered in the name of multiple stationers, permission from each of them was necessary for the book to be printed:

It is . . . ordained that where any entry or entries is or are or hereafter shall be duly made of any book or copy in the said register-book of this company that in such case if any member or members of this Company shall then after without the license or consent of such member *or members* of this company for whom such entry is duly made in the register book of this company or his or *their* assignee or assigns print or cause to be printed, import or cause to be imported . . . any such copy or copies book or books, or any part of any such copy or copies book or books, or shall sell, bind, stitch, or expose the same, or any part or parts thereof, to sale, that then such member or members so offending shall forfeit to the master and keepers or wardens and community of the mistery of art of stationery of the City of London the sum of twelve pence for every such copy or copies, book or books, or any part of such copy or copies, book or books, so imprinted,

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<sup>64</sup> ARBER, EDWARD, 1 A TRANSCRIPT OF THE REGISTERS OF THE COMPANY OF STATIONERS OF LONDON 23 (1913) (entry of May 15, 1641).

<sup>65</sup> ARBER, *supra* note \_\_\_, at 221 (entry of March 17, 1645).

<sup>66</sup> HENRY R. PLOMER, A DICTIONARY OF THE BOOKSELLERS AND PRINTERS WHO WERE AT WORK IN ENGLAND, SCOTLAND AND IRELAND FROM 1641 TO 1667, at 157 (1907).

<sup>67</sup> ARBER, *supra* note \_\_\_, at 384 (entry of Nov. 24, 1651).

imported sold, bound, stitched, and exposed to sale, contrary hereunto.<sup>68</sup>

In theory, rules requiring permission from each of several “members” for whom a copy was registered, combined with division of copies into halves, fourths, eighths, etc., as documented above, could have made it difficult to trace ownership and assemble permissions necessary to print a co-owned book. I have found no accounts of such problems, however, and scanning these and other entries suggests a possible reason why: not only does the Register itself serve as a useful tool for identifying copy-holders and their respective rights. It also reveals how insular the community was. The same names appear again and again as entrants (and the entrants are also often among the officials in charge of making the entries). Ownership was thus fragmented but familiar,<sup>69</sup> divided among a small group of potential owners who often entered into their complicated ownership arrangements with plans already in mind about whom they would authorize to print their works and how the profits would be divided.<sup>70</sup> Indeed, entries in the Register often documented such *ex ante* arrangements. A printer might assign a copyright to a fellow stationer (or stationers) but with the express provision that the printer would subsequently be employed to do the printing.<sup>71</sup>

There were some instances in which ownership was so fragmented among multiple stationers that co-management might have been unwieldy and was replaced with unified management by the Company itself. This was the case for what came to be known as the “English Stock”—important printing patents that were co-owned by a group of shareholding members of the Company.<sup>72</sup> The English stock began as “a complex piece of jointly-owned property”<sup>73</sup> in “schoolbook and other patents.”<sup>74</sup> Historian John Feather explains

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<sup>68</sup> Stationers’ Company Ordinance of 1681 (emphasis added), reprinted in BIRRELL, *supra* note \_\_\_, at 79-80; *see also* BIRRELL, *supra* note \_\_\_, at 80-81 (reprinting Ordinance of 1694, which includes similar language). *But cf.* BLAGDEN, *supra* note \_\_\_, at 42 (quoting the Ordinance of 1583, which does not refer to multiple owners).

<sup>69</sup> *Cf.* Henry E. Smith, *The Language of Property: Form, Context, and Audience*, 55 STAN. L. REV. 1105, 1125 (2003) (“The communication of legal relations is subject to a tradeoff between intensiveness and extensiveness of information: For the same cost, one can communicate a lot to a small, close-knit audience or a little to a large, anonymous audience.”).

<sup>70</sup> *See generally* PATTERSON, *supra* note \_\_\_, at 46.

<sup>71</sup> *See, for example,* this Sept. 16, 1643 entry: “Assigned over unto [Master Crooke] by virtue of a note under the hand and seale of James Young all the estate, right title and interest wch he the said James Young hath of & in the full Moyety or one halfe of the copie called *A large & compleat Concordance of the Bible . . .*, Provided that the said James Young is to have the workmanship of print the same from tyme to tyme . . .” ARBER, *supra* note \_\_\_, at 75 (entry of Sept. 16, 1643).

<sup>72</sup> *See generally* Cyprian Blagden, *The English Stock of the Stationers’ Company in the Time of the Stuarts*, 11 THE LIBRARY 167 (5th series, 1957); Cyprian Blagden, *The English Stock of the Stationers’ Company*, 10 THE LIBRARY 163 (5th Ser. 1955).

<sup>73</sup> John Feather, *From Rights in Copies to Copyright: The Recognition of Authors’ Rights in English Law and Practice in the Sixteenth and Seventeenth Centuries*, *supra* note \_\_\_, 10 CARDOZO ARTS & ENT. L.J. 455, 464 (1991-1992).

<sup>74</sup> *Id.*

that “to avoid disputes between the shareholders, its management was effectively delegated to the Court of Assistants, the governing body of the Stationers’ Company.”<sup>75</sup> Shareholders received dividends but did not have an active role in managing the portfolio; thus ownership was technically fragmented but control was unified.

#### 4. *Atomism Across Multiple Dimensions*

The era of the Stationers’ Company regime (and the system of letters patent with which it overlapped) was the first time in the history of Anglo-American copyright in which intangible rights to exploit works of authorship were clearly conceived of as separate from chattel ownership. It thus offers the first historical episode in which we can characterize those rights along all three dimensions of atomism and set a baseline to which to compare subsequent eras.

In some respects, the copyright landscape established in the era of the Stationers’ Company monopoly was quite atomistic. As to proliferation, every type of printed work was subject to the Company’s perpetual rights. As to distribution, the company parceled out rights to individual members as opposed to maintaining consolidated ownership of them. And as to fragmentation, the rights were not only separate from tangible rights to physical manuscripts but where themselves fragmentable among multiple co-owners.

Notwithstanding these apparently atomistic features, the Stationers’ Company regime was fundamentally holistic on account of its defining characteristics: the closed membership of the Company itself and the exclusive ability of those members to have their rights recorded in the Register and enforced against others. Regardless of how many rights there were and how amenable they were to distribution and fragmentation, the pool of rightholders was strictly limited and easily identifiable. Indeed, the entire point of the regime from the stationers’ perspective was to maintain their collective monopoly over the book trade. This interest coincided with the Crown’s interest in creating a publishing bottleneck that facilitated censorship—censorship that of course limited the universe of works to which atomistic rights could apply.<sup>76</sup>

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<sup>75</sup> *Id.*, at 464; see also PATTERSON, *supra* note \_\_\_, at 110 (“Once it was formally established, the English Stock was operated so as to maintain a strict control over the publishing of the books within its jurisdiction. The Stock was governed by the master and wardens and a committee of shareholders called the stock-keepers. . . The master, wardens, and stock-keepers, at their fortnightly meetings, apparently determined what books should be printed, the size of the editions, who should print them, and at what price the books should be sold”); Tomas H. Gomez-Arostegui, *What History Teaches Us About Copyright Injunctions and the Inadequate-Remedy-at-Law Requirement*, 81 S. CAL. L. REV. 1197 (2007-2008) (“The Company held its patent in a corporate capacity, and Company members therefore partook in its benefits by owning shares in a holding entity called the English Stock.”).

<sup>76</sup> See, e.g. ROSE, *supra* note \_\_\_, at 12 (discussing the Stationers’ Company charter and concluding that “[t]he primary interest of the state in granting this monopoly was not . . . the securing of stationers’ property rights but the establishment of a more effective system for government surveillance of the press.”); *id.*, at 13 (“[C]ensorship and trade

The fundamental holism of the Stationers' Company regime meant that it was not plagued with the information and transaction cost problems I associate with atomism. If one stationer wanted to print a book to which another had the rights,<sup>77</sup> he could identify the owner by consulting the Register. The person so identified would be one of a limited group of eligible stationers, probably a fellow Londoner.<sup>78</sup> Even if ownership of the right was fragmented among multiple owners, they would all be similarly easy to identify and locate.<sup>79</sup>

But the Stationers' Company era is better remembered as a cautionary tale about the costs of holism—or, more precisely, of certain mechanisms that maintain holistic copyright but sacrifice other important values. The holism of this era was achieved largely through the monopolistic practices of the Stationers' Company with the encouragement of royal censors.<sup>80</sup> It intentionally undermined competition and free speech.<sup>81</sup> And it did little to promote authorial autonomy: authors' rights were still limited to simple manuscript ownership<sup>82</sup>; their publishing outlets were limited by the Company's

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regulation became inextricable, and this was a marriage that was to endure until the passage of the Statute of Anne in 1710.”); BIRRELL, *supra* note \_\_\_, at 51 (explaining that copyright sprang from the “two independent and occasionally clashing interests” of “censorship of the Press and the monopoly of the booksellers”).

<sup>77</sup> See generally PATTERSON, *supra* note \_\_\_, at 4 (describing transactions between publishers, printers, and booksellers).

<sup>78</sup> See generally BIRRELL, *supra* note \_\_\_, at 71-73 (describing the “leading London booksellers” who controlled the Stationers' Company).

<sup>79</sup> This is not to say there were not disputes and instances of unclear ownership. Despite the Company's entry requirement, the Register was not in fact comprehensive. And the privileges, copyrights, and licenses issued by the Crown, the Stationers' company, and religious authorities sometimes overlapped and conflicted in confusing ways.

<sup>80</sup> See, e.g. ROSE, *supra* n. \_\_\_, at 15 (“The guild was concerned with the regulation of the book trade, and the state was concerned with the regulation of public discourse.”); KAPLAN, *supra* note \_\_\_, at 3 (“When Queen Mary chartered the stationers in 1557, the fellowship, in exchange for the large trade advantages they then secured, undertook to become in practical effect sompnours and pursuivants of the royal censorship. . . .”); Howard B. Abrams, *The Historic Foundation of American Copyright Law: Exploding the Myth of Common Law Copyright*, 29 WAYNE L. REV. 1119, 1135-36 (1983) (“This concern for censorship culminated when Queen Mary Tudor ultimately traded a monopoly over the printing of books for royal censorship with the chartering of the company of Stationers in 1557. Only members of the Company of Stationers could legally print books and only books authorized by the Crown could be published.”).

<sup>81</sup> See Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_, at 323 (“[T]he private copyright system of the pre-modern era mainly functioned to regulate the book trade to ensure that members of the guild enjoyed monopolies in the books they printed. . . . Conveniently for English authorities, the guild's practices provided an infrastructure for controlling (i.e. suppressing) publication of heretical and seditious materials. English kings and queens were quite willing to grant to the Stationers' Guild control over the publication of books in the realm in exchange for the guild's promise to refrain from printing such dangerous materials.”).

<sup>82</sup> BIRRELL, *supra* note \_\_\_, at 74 (“[T]he author's copy is the manuscript, and the only way open to him for dealing with it was to sell it out and out. . . .”); PATTERSON, *supra* note \_\_\_, at 8 (“[A]s history shows us, copyright began as a publisher's right, a right which functioned in the interest of the publisher, with no concern for the author.”); WARD, ET AL., *supra* note \_\_\_, chapter XVIII § 11 (“The author was thus at the mercy of the stationer. He could, no doubt, take his manuscript in his hand, and, making the round

monopsony; and they were the ultimate objects of the Crown's censorship.

## **B. The Early Modern Era: Eighteenth Century England Under the Statute of Anne**

Due in part to objections to both censorship and monopoly in the decades following the English Civil War,<sup>83</sup> the final Licensing Act protecting the Stationers' Company monopoly expired in 1694. But some features of the regime were eventually replicated (after many failed proposals<sup>84</sup>) in 1710 with the passage of the Statute of Anne.

The Statute of Anne is often touted as the first modern copyright law,<sup>85</sup> expressly directed not toward censorship and monopoly but instead toward "the encouragement of learning."<sup>86</sup> In some ways the act did represent a stark break with the past. But it also maintained elements of the predecessor regime. Its basic scope and subject matter were the same: rights to "print" and "reprint"<sup>87</sup> books and similar writings.<sup>88</sup> As before, enforcement of copyrights was conditioned on entry in the Stationers' Company Register.<sup>89</sup> And for

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of the shops, conclude a bargain with some bookseller whom he found willing to undertake the publication of his work; but, except by agreement, he could retain no control over his book: it would be entered in the register in the stationer's name and become his property. As for the author who allowed his writings to be circulated in manuscript, as was often done in the case of poems and other forms of polite literature, he was in a still more defenceless state, for his manuscript was liable to be snapped up by any literary scout who might scent a paying venture; and the first stationer who could acquire it might forthwith proceed to Stationers' Hall and secure the copyright of the work, leaving the hapless author without recompense or redress, and without even the consolation of his literary pride of correcting the errors of copyist and printer.").

<sup>83</sup> See generally Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_, at 334 ("Over time, discontent arose about the pre-modern copyright system, both because of its monopolistic character and because of its role in censorship.")

<sup>84</sup> See FEATHER, PUBLISHING, *supra* note \_\_\_, at 50-63.

<sup>85</sup> See, e.g., Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_, at 324 ("The principal development that ushered in the modern era of copyright was the English Parliament's passage of the Statute of Anne in 1710.")

<sup>86</sup> An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, During the Times therein mentioned, 1710, 8 Anne, c. 19 [hereinafter Statute of Anne], available at <http://www.copyrighthistory.org>; see generally Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_, at 324 ("On its face, this statute was both a repudiation of several tenets of the Stationers' copyright system and a redirection of copyright's purpose away from censorship and toward freedom of expression principles. It also sought to promote competition among printers and booksellers . . .").

<sup>87</sup> Unauthorized sale of unlawfully printed books was also forbidden. Statute of Anne, *supra* note \_\_\_. See generally Ginsburg, "Une Chose Publique," *supra* note \_\_\_, at 646-47 ("The Statute of Anne vested authors and proprietors with the rights to print, reprint and sell. In modern copyright parlance, these are the rights to reproduce and distribute the work.")

<sup>88</sup> The Statute referred expressly to books but was interpreted more broadly to cover other printed matter as well. See discussion *infra*.

<sup>89</sup> Statute of Anne, *supra* note \_\_\_. ("[W]hereas many persons may through ignorance offend against this Act, unless some provision be made whereby the property in every such book, as is intended by this act to be secured to the proprietor or proprietors thereof may be ascertained . . . That nothing in this Act contained shall be construed to

those copyrights already registered and owned by stationers, the Statute extended their rights for twenty-one years.<sup>90</sup>

This twenty-one year continuation of stationers' rights represented both continuity and change. On the one hand it acknowledged and extended stationers' pre-existing claims. On the other hand, it gave an expiration date to rights that had been understood to be perpetual.<sup>91</sup> The stationers would later argue that the Statute merely augmented common law copyrights that in fact continued forever; but that position was finally rejected by the House of Lords in the famed case of *Donaldson v. Beckett* in 1774 (holding that common law copyrights ended upon publication and were replaced with the finite copyrights created by the Statute of Anne).<sup>92</sup>

The other critical innovation in the Statute of Anne was that stationers were no longer the only people eligible to hold copyrights. As to new works, the statute granted initial rights not to stationers but to authors—for an initial term of 14 years and a renewal term of 14 more years if the author was still living.<sup>93</sup> References in the Statute to other potential rights holders (“assigns,” “proprietors,” etc.) suggested that authors could transfer their rights to whomever they pleased, no longer limited by the Stationers' Company monopoly.<sup>94</sup> They could

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extend to subject any bookseller, printer or other person whatsoever, to the forfeitures or penalties therein mentioned . . . unless the title to the copy of such book or books hereafter published, shall, before such publication, be entered in the Register Book of the Company of Stationers . . .”). PATTERSON, *supra* note \_\_\_, at 146 (“The method of acquiring the statutory copyright was similar to that for acquiring the stationer’s copyright—registration of the title of a work prior to publication in the register books of the Stationers’ Company.”).

Note, however, Jane Ginsburg’s observation that while the new statutory remedies were conditioned on formalities, common law remedies were still available: “[E]ven when it came to published works, the courts concluded that formalities conditioned only the special statutory remedies; common law remedies remained available when the author or proprietor had not registered the work with the Stationers Company.” Ginsburg, “*Une Chose Publique*,” *supra* note \_\_\_, at 646.

<sup>90</sup> Statute of Anne, *supra* note \_\_\_. See generally PATTERSON, *supra* note \_\_\_, at 143 (“As finally enacted, the Statute of Anne provided for two copyrights—the statutory copyright for all books subsequently published, and the stationer’s copyright already existing in published works, which was extended for twenty-one years—and allowed a third, the printing patent, to retain its status quo.”).

<sup>91</sup> See generally BRAD SHERMAN & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW* 12 (1999) (“In so far as the booksellers were able to convince authors to assign their rights to them, this had the effect of providing booksellers with an opportunity to reclaim some of the control they had previously exercised over the book trade. However successful this may have been, it provided this Stationers with a much more restricted form of control than they had been used to. In particular the right to print and reprint books which was recognized in the 1710 Statute of Anne only lasted a limited period of time . . .”).

<sup>92</sup> 98 Eng. Rep. 257 (1774).

<sup>93</sup> Statute of Anne, *supra* note \_\_\_ (“[A]fter the expiration of said term of 14 years, the sole right of printing or disposing of copies shall return to the authors thereof, if they are then living”).

<sup>94</sup> Patterson emphasizes the fact that anyone could become a proprietor of a copyright under the Statute of Anne: “The radical change in the statute . . . was not that it gave authors the right to acquire a copyright—a prerogative until then limited to members of the Stationers’ Company—but that it gave that right to all persons.” PATTERSON, *supra* note \_\_\_, at 145.

make this choice multiple times by assigning the initial term and retaining the contingent renewal term or assigning it separately.<sup>95</sup>

With these core features of the Statute of Anne in mind, let us turn to assessing this era on the three dimensions of atomism:

### ***1. Proliferation: How Many Works Are Subject to Ownership?***

The Statute of Anne explicitly granted rights only to “books.”<sup>96</sup> But this language was interpreted broadly enough to cover letters, plays, maps, and sheet music.<sup>97</sup> In short, it seems to have made copyrights available for all printed matter, just as the Stationers’ Company copyrights had.<sup>98</sup>

Initially, the specific titles that were protected by the Statute of Anne were continuous with the Stationers’ Company regime as well. In the early decades under the Statute, British publishers focused on reprinting existing works as opposed to bringing out new ones. Authors such as Shakespeare and Milton were popular and, probably more importantly, the publishers already held the copyrights in their works.<sup>99</sup>

But the end of official state censorship and other eighteenth century societal and cultural factors weighed in favor of growth in literature<sup>100</sup> and led, in particular, to the emergence of the novel as a

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<sup>95</sup> PATTERSON, *supra* note \_\_\_, at 145-46.

<sup>96</sup> Statute of Anne, *supra* note \_\_\_. The preamble did refer, however, to “books and other writings.” *Id.*

<sup>97</sup> See generally Ginsburg, “*Une Chose Publique*”, *supra* note \_\_\_, at 634 (citing early cases); Merges, *The Concept of Property in the Digital Era*, *supra* note \_\_\_, at 1264 (discussing protection of printed musical compositions under early European copyright law); Michael W. Carroll, *The Struggle for Music Copyright*, 57 FLA. L. REV. 907 (2005) (recounting history of litigation establishing that musical compositions were protectable under the Statute of Anne).

<sup>98</sup> PATTERSON, *supra* note \_\_\_, at 146 (“[T]he protection secured by the statute was the same protection given by the stationer’s copyright—protection from the piracy of printed works.”).

<sup>99</sup> As John Feather recounts in his history of British publishing, “there was little incentive to seek out new works or new authors. . . . [T]he economic certainties of the reprints were rather too tempting when set against the more tempestuous seas of speculative publishing.” JOHN FEATHER, *A HISTORY OF BRITISH PUBLISHING* 72 (1991). Feather continues: “The 1710 Copyright Act was ultimately to benefit publishers and authors alike, but in the first decades of its operation it was the former who were its beneficiaries, as indeed they had been its progenitors.” *Id.*

<sup>100</sup> “Eighteenth-century England was, on the whole, peaceful and prosperous. . . . From the 1730s onwards there began that expansion of the economy which was to reach its climax during the Napoleonic Wars when Britain became the world’s first industrial capitalist society. Economic expansion and broad political harmony created a climate in which the arts of peace flourished, and leisure became, for the first time, a commercial commodity. Although books were not the only constituent of the new commercial leisure market, they were an important competitor to the theaters, concert halls, assembly rooms and sporting events which were attracting ever more patronage.” FEATHER, *A HISTORY*, *supra* note \_\_\_, at 93. “The ending of official controls over publishing had opened the floodgates. The waters which poured out, however, were not those of sedition and blasphemy . . . but a highly developed free enterprise trade, working to the demand of a diverse and growing market, and generating substantial profits for the many who were involved in the long chain of supply from author to reader.” FEATHER, *A HISTORY*, *supra* note \_\_\_, at 105.

literary form. The popularity and faddishness of novels meant that “once the demand had been created, a continuous supply of new novels was needed to fill it.”<sup>101</sup> These new works proliferated alongside reprints of old favorites.<sup>102</sup>

The universe of theoretically protectable works thus grew in the first century under of the Statute of Anne, not because of expansions in the subject matter of copyright but because of growth in the number of works written and published. But proliferation of legally protected works did not in fact grow apace with the growth of literature, for two reasons: first, full protection under the Statute was conditioned on compliance with the formality of registration<sup>103</sup>; second, copyrights expired so that even protected works fell into the public domain no more than 28 years after their first publication. There was therefore not a one-to-one correspondence between creative activity and proliferation of copyrights; the creative marketplace was becoming increasingly crowded with works, but crowding of the copyright marketplace was not as severe. As we will see, these anti-proliferation features of the Statute of Anne were maintained in early American law, but no longer characterize contemporary copyright.

## 2. *Distribution: How Many People Own Rights?*

The most notable innovation made by the Statute of Anne was that it ended the Stationers’ Company’s officially-sanctioned monopoly and thus set the stage for much broader distribution of copyright ownership.<sup>104</sup> The initial practical effect of the new Statute

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<sup>101</sup> “The most significant new [eighteenth century] development . . . was in the emergence of a whole new literary genre, the only one to have been invented since the invention of printing itself: the novel. . . . [I]n essence, the novel is a product of the eighteenth century. . . . [T]he novel really came of age with the publication of Richardson’s *Clarissa* in 1740, and in Richardson and his contemporary, Fielding, we have the first great English novelists. . . . From the trade’s point of view, the significance of the novel lay not in its literary merit but in its essential triviality. It was seen as an ephemeral production to be read once and then forgotten. This meant that, once the demand had been created, a continuous supply of new novels was needed to fill it. Waves of fashion swept over the novel.” FEATHER, *A HISTORY*, *supra* note \_\_\_, at 92-93.

<sup>102</sup> Feather nonetheless suggests that most success was based on publishing old reprints, not new works. “Those who were successful depended essentially on the long-term demand for reprints which were cheap to produce and had a ready-made market. Innovation was not a conspicuous feature of eighteenth-century publishing.” FEATHER, *A HISTORY*, *supra* note \_\_\_, at 98.

<sup>103</sup> Statute of Anne, *supra* note \_\_\_; see also KAPLAN, *supra* note \_\_\_, at 7 (“[T]o prevent infringement by innocent mistake, it was provided that the forfeiture and penalty could not be exacted with respect to new books unless the title to the copy was entered, before publication, in the register book at the Hall of the Stationers’ Company.”)

<sup>104</sup> PATTERSON, *supra* note \_\_\_, at 150 (“The Statute of Anne can . . . best be understood as a trade-regulation statute directed to the problem of monopoly in various forms.”); Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_, at 324 (“On its face, this statute was both a repudiation of several tenets of the Stationers’ copyright system and a redirection of copyright’s purpose away from censorship and toward freedom of expression principles. It also sought to promote competition among printers

was more modest than this dramatic legal change might suggest, however. Authors largely continued to assign their copyrights to the same publishers under the same terms as before.<sup>105</sup> As Diane Zimmerman reports: “Eighteenth century writers who attempted to keep their copyrights, it is said were either unable to find a publisher at all or, if they did, were exposed to punitive actions by the publishing establishment for their temerity.”<sup>106</sup> Therefore, “the practice of transferring the full copyright to the publisher ab initio was established tradition well before the beginning of the nineteenth century, and authors (unless they were exceptional) probably have never had much choice in the matter.”<sup>107</sup> Similarly, L. Ray Patterson observes: “[t]hat the author was entitled by the statute to hold the copyright of his works did not really disturb the booksellers. They simply insisted on having the copyright before they would consent to publish a work. If the author refused, he ran the risk, if the bookseller accepted at all, of having the promotion of his book ignored.”<sup>108</sup>

There were important counter-examples of authors claiming and profiting from their new rights.<sup>109</sup> In fact, the first case decided under the Statute of Anne was initiated by the executor of an author’s estate, not by a publisher.<sup>110</sup> And some especially savvy and popular authors

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and booksellers—that is, to break the stranglehold that major firms within the Stationers’ Company had over the book trade.”).

<sup>105</sup> BIRRELL, *supra* note \_\_\_, at 95-96 (“As a matter of fact, . . . authors continued to sell their books out and out to the booksellers, in whose names the entries at Stationers’ Hall continued to be made.”). And the publishers continued their collusive practices despite their theoretical vulnerability to competition; *see also, e.g.*, PATTERSON, *supra* note \_\_\_ at 152 (“Although [the booksellers] maintained a fiction of public sales, in practice, the catalogues of copyrights for sale were sent to a chosen few, and other persons were rigorously excluded from the auctions.”)

<sup>106</sup> Diane Leenheer Zimmerman, *Authorship Without Ownership: Reconsidering Incentives in a Digital Age*, 52 DEPAUL L. REV. 1121, 1140 (2002-2003); *see also* CATHERINE SEVILLE, LITERARY COPYRIGHT REFORM IN EARLY VICTORIAN ENGLAND: THE FRAMING OF THE 1842 COPYRIGHT ACT 102 (1999) (“An author attempting to publish a work would find that the bookseller invariably took the copyright. Authors who kept their copyrights would find that their works were unaccountably unsaleable.”); FEATHER, PUBLISHING, *supra* note \_\_\_, at 79-80 (“Some authors came together in a sort of cooperative in the 1730s to form the Society for the Encouragement of Learning . . . but the venture was short-lived. It failed, according to one contemporary, because the trade refused to distribute the books which it produced. . . . Authors were exhorted to take their affairs into their own hands . . . . But this was an impossible dream for so long as the booksellers controlled the trade through their stranglehold on copyrights, production facilities and distribution.”).

<sup>107</sup> Zimmerman, *supra* note \_\_\_, at 1140; *see also* FEATHER, A HISTORY, *supra* note \_\_\_, at 170 (“[F]or most eighteenth-century authors the single payment for an outright sale of his copyright remained the usual practice.”).

<sup>108</sup> PATTERSON, *supra* note \_\_\_, at 152; *see also* FEATHER, PUBLISHING, *supra* note \_\_\_, at 80 (“In general . . . the author sold his copy outright to the publisher, who then did with it as he wished. These agreements seem to be fairly typical of the middle of the century.”).

<sup>109</sup> FEATHER, A HISTORY, *supra* note \_\_\_, at 123 (“In the eighteenth century, a few authors had indeed exploited the law. They were exceptional, but far more writers began to benefit from the exertions of these few, as the relationships between authors and publishers changed.”).

<sup>110</sup> ROSE, *supra* note \_\_\_, at 49 (describing *Burnet v. Chetwood*, 2 Mer. 441 (1721)). But Rose goes on to note that “*Burnet v. Chetwood* was unusual: most of the early cases

were able to use copyright to control how their works were exploited. Poet Alexander Pope,<sup>111</sup> for example, “sought to exploit the 1710 Copyright Act to his own advantage. . . . To protect the artistic integrity of his work, as well as his own income, Pope retained as much control as possible over the publication of his poems.”<sup>112</sup>

During the course of the eighteenth century, more authors followed Pope’s lead. Feather notes that “[b]y the middle of the century . . . more complex arrangements, often more beneficial to the author, were becoming more common. . . . Popular authors . . . especially those who had a reasonable prospect of reprints after the first edition, were no longer so attracted by the outright sale of their copyrights.”<sup>113</sup>

Ironically, authors’ bargaining power was enhanced by the failed eighteenth century campaign for judicial recognition of a perpetual common law authorial copyright. By rejecting the notion of perpetual common law copyright in *Donaldson* in 1774,<sup>114</sup> the House of Lords weakened the market power of the London booksellers (which was based in part on their claimed ownership of perpetual rights to popular works for which the statutory copyright had expired).<sup>115</sup> A more competitive publishing marketplace meant more potential bargaining partners for authors.<sup>116</sup> *Donaldson* also made publishers who could no longer rely on a perpetual stream of revenue from their old copyrights more dependent on living authors. All-in-all, by the end of the eighteenth century, authors in England were beginning to have some of the clout that the Statute of Anne appeared to give them back in 1710. And some authors used their enhanced stature to retain the copyrights that the statute initially distributed to them. Thus, by 1800, poet Robert Southey could direct his representative to negotiate with several different potential publishers of his epic poem *Thalaba*, with the instructions to “make the best bargain you can, and on no terms . . . . sell the copyright.”<sup>117</sup>

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that arose under the statute involved major London booksellers seeking injunctions . . . against other booksellers.” *Id.*, at 51.

<sup>111</sup> 1688-1744.

<sup>112</sup> FEATHER, A HISTORY, *supra* note \_\_\_\_, at 99.

<sup>113</sup> FEATHER, A HISTORY, *supra* note \_\_\_\_, at 170 (“Scott insisted from the beginning of his career as a novelist on ‘half-profits’ agreements, by which he and his publisher shared equally in the profits of an edition. Moreover, Scott would allow a publisher the rights only to one edition at a time, and renegotiated for reprints. . . . Dickens became something of an expert in exploiting his own commercial value, again often using the half-profits system.”).

<sup>114</sup> 98 Eng. Rep. 257 (1774).

<sup>115</sup> See generally SEVILLE, *supra* note \_\_\_\_, at 104 (describing the post-*Donaldson* marketplace, when “[t]he monopoly was significantly weakened, and it was now in theory possible to publish old books in cheap editions without fear of legal action from the London booksellers”).

<sup>116</sup> See generally FEATHER, A HISTORY, *supra* note \_\_\_\_, at 122 (describing competition from, inter alia, provincial and Scottish publishers).

<sup>117</sup> CHARLES C. SOUTHEY (ED.), II THE LIFE AND CORRESPONDENCE OF ROBERT SOUTHEY 121 (1849); see also SEVILLE, *supra* note \_\_\_\_, at 154 (describing this episode). See generally FEATHER, A HISTORY, *supra* note \_\_\_\_, at 170 (“By the beginning of the nineteenth century, the 1710 Act, designed by the trade as a protection for itself, was

In sum, while the Statute of Anne made broad distribution of copyright ownership a theoretical possibility at the beginning of the eighteenth century, few authors had the wherewithal to retain their rights in practice. Consolidated ownership by the familiar London stationers remained the norm.<sup>118</sup> But by the end of the century a newly competitive marketplace was emerging from developments in both literature and law. The broad distribution of ownership that was effected in theory by the Statute of Anne became more of a practical reality.<sup>119</sup>

### ***3. Fragmentation: Among How Many People Is Each Work Divided?***

*Tangible/Intangible Fragmentation:* The Statute of Anne formalized the notion of intangible rights separate from ownership of physical manuscripts that was introduced in the previous era. These intangible rights were in turn subject to fragmentation between concurrent co-owners and between present and future interest holders.

*Concurrent Co-Ownership:* Recall that under the Stationers' Company regime described above, only one exclusive right attached to each work—the right to print.<sup>120</sup> But this single right was often

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increasingly seen as a tool to be used by authors, and they began to take an interest in the law and in strengthening it to their own advantage.”); FEATHER, PUBLISHING, *supra* note \_\_\_, at 123 (“By 1800, the mutual dependence of authors and publishers was recognized on both sides, for in the aftermath of [Donaldson] the publishers needed a constant stream of new books if they were to continue to make profits from works protected by the law.”); PATTERSON, *supra* note \_\_\_, at 177-78 (concluding that “[i]t was the only [the Donaldson] decision which would destroy the monopoly of the booksellers, and there is little question that the decision was directly aimed at that monopoly.”).

<sup>118</sup> See generally FEATHER, A HISTORY, *supra* note \_\_\_, at 139 (“Competition between copy-owning booksellers in the seventeenth and eighteenth centuries had always, in the last analysis, been restrained by their need to work together to protect the very idea of copy ownership. The share books, and the wholesaling congers from which the share book system developed, were only the outward manifestations of the trade’s general recognition of the need to modify competition by co-operation. In the last quarter of the eighteenth century, however, this situation changed, and publishers found themselves operating in a harsher climate in which success or failure was apparently a matter for individual firms rather than for the trade as a whole.”)

<sup>119</sup> See Wu, *Copyright’s Authorship Policy*, *supra* note \_\_\_, at 19 (“While authors still had far less market power than publishers, the whole idea of copyright in authors was at odds with the indefinite continuation of a stationers’ cartel. The basic concept is that by giving the legal rights to the author, the author became an independent, vested economic entity that made competing modes of production possible.”). *But cf.* SEVILLE, *supra* note \_\_\_, at 149 (“With some notable but individual exceptions, most authors continued to sell their copyrights outright until nearly the end of the nineteenth century. Authorship was still relatively young as a profession, and attempts to unite it were, on the whole, unsuccessful.”); *id.* at 153 (“Interest in copyright and related questions grew slowly throughout the early nineteenth century, although at first only a few authors regarded copyright as something worth fighting for.”).

<sup>120</sup> See generally Paul Goldstein, *Derivative Rights and Derivative Works*, 30 J. COPYRIGHT SOC’Y U.S.A. 209, 211-212 (1983) (“Early English copyright law defined copyright narrowly. The Statute of Anne gave authors and their assigns the exclusive right only to ‘print, reprint or import’ their books, and courts were slow to read this language as covering more than literal copies.”); Samuelson, *Copyright and Freedom of*

fragmented among several co-owners, each of whom appeared to have the authority under the Company's ordinances to veto printing of the work by a non-owner. The potentially atomistic effect of this fragmentation was limited, however, by the fact that the eligible co-owners were all members of a closed and relatively small community—stationers who engaged in repeated transitions with each other and likely encountered few difficulties reassembling rights as necessary to exploit co-owned works. (And in the most complicated cases, they turned to collective managerial techniques like the one that governed the English Stock.)

Like the Stationers' Company regime, the Statute of Anne granted only the unified right to print,<sup>121</sup> but co-ownership of that right was possible. And, like the Stationers' Company Ordinance, the language of the Statute of Anne suggested that where a copyright was owned by multiple people, printing it was forbidden unless the permission of "proprietors" was obtained.<sup>122</sup> Again, this fragmentation of veto power seems troublingly atomistic in theory. But at least in the early decades under the Statute of Anne, the division of copyrights into shares appears still to have been managed within the close knit community of stationers, with joint-ownership often reflecting cozy joint ventures to facilitate the financing of publishing, as opposed to the fragmentation of ownership between far flung strangers whose fragments might later be difficult to assemble.

John Feather summarizes the continuity of the stationers' practice even after the expiration of the Licensing Act and the adoption of the Statute of Anne.

Shares in copies had been known since the beginning of the seventeenth century . . . . They were an inevitable development as the ownership of copies descended through the generations, and became the subject of commercial transactions. Under the Stationers' Company's own regulations, such shares could be owned only by members of the Company and transactions relating to them had to be entered in the Register . . . .<sup>123</sup>

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*Expression*, *supra* note \_\_\_, at 325 (noting that the Statute "conferred rights of a limited character—not to control all uses of protected works, but only the printing and reprinting of them").

<sup>121</sup> The Statute of Anne granted exclusive rights to print and reprint, and also forbade the knowing sale of unlawful copies. It did not by its terms include other now-familiar exclusive rights of adaptation and public performance and display. Note, however, Jane Ginsburg's conclusion on reading the early cases that they give an "ambiguous response" to the question of whether there could be extra-statutory recognition of those rights. See Ginsburg, "*Une Chose Publique*", *supra* note \_\_\_, at 646-60.

<sup>122</sup> Statute of Anne, *supra* note \_\_\_ (emphasis added).

<sup>123</sup> FEATHER, PUBLISHING, *supra* note \_\_\_, at 66.

After their officially-sanctioned monopoly ended, the stationers maintained “the understanding among the principal copy owners that they would only sell shares to each other.”

These transactions took place at private auctions, known as “trade sales” . . . . Once a bookseller had been admitted to the sales, he was required to sell any copies which he bought there at a similar sale, a rule which also bound widows and other heirs if they wished to dispose of copies which they inherited. Since most of the really valuable copies were divided into shares, almost all of them passed through the trade sales during the eighteenth century, and contributed to the general pattern of a small group of booksellers who dominated publishing through their ownership of copies . . . .<sup>124</sup>

Catherine Seville describes the eighteenth century trade sales similarly, while also alluding to the way in which the rejection of the claims of perpetual ownership of those most valuable copies ultimately opened up fragmented ownership to a broader universe of owners:

The original intention was to share both risk and expense by dividing copyrights. Copyrights were sold only at trade sales, and admittance to these was strictly controlled. It was the exclusion of the Scottish bookseller, Donaldson, from the sale of the rights of Thomson's *The Seasons* that led to the great case of *Donaldson v. Beckett*, and ultimately to the weakening of the system.<sup>125</sup>

These observations about the trade sales demonstrate how, even after the stationers no longer enjoyed an official monopoly, their collusive practices ensured that copyright ownership was fragmented only among their insular group. As with distribution, this situation would change after *Donaldson* weakened the London publishers' market power by rejecting their claims of perpetual ownership of the most valuable old copyrights, making new entrants viable participants in the publishing marketplace. Henceforth, the atomizing effects of the type of fragmented ownership that had been the norm since the Stationers' Company would no longer be cabined within a closed club of copyright owners.<sup>126</sup>

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<sup>124</sup> FEATHER, PUBLISHING, *supra* note \_\_\_\_, at 66; *see also id.*, at 80 (“The trade sales ensured that the most profitable copies, however much they might be subdivided, remained within a comparatively small group of owners.”)

<sup>125</sup> SEVILLE, *supra* note \_\_\_\_, at 102.

<sup>126</sup> *See, e.g.*, FEATHER, PUBLISHING, *supra* note \_\_\_\_, at 94 (“The book trade was transformed by *Becket v. Donaldson*, in a way which was, in part, intended by the reprinters and their supporters. The opening up of the trade copies to all comers created a

*Temporal Fragmentation:* The structure of the rights created by the Statute of Anne also created the possibility of temporal fragmentation of copyrights. Recall that for new works, the statute granted authors a 14-year initial term, with another 14-year renewal term possible upon registration by a living author.<sup>127</sup> The copyright to a single work could thus become temporally fragmented if an author assigned the initial term but retained the contingent renewal term for himself (or assigned it to someone else).<sup>128</sup>

This type of temporal fragmentation could have imposed high atomism-related costs on publishers who wished to continue to print works to which they had acquired only the initial term. Indeed, Alexander Pope was involved in at least one dispute involving uncertainty about who had the rights to publish works he had authored once they entered their renewal terms.<sup>129</sup> But in the vast majority of cases, actual assignment practices alleviated some of these difficulties.<sup>130</sup> The custom, at least in the early decades under the Statute of Anne, was for authors to assign their contingent renewal terms at the same time, and to the same publishers, as they assigned their initial terms—a practice upheld by the English courts.<sup>131</sup> Private

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new trade in low-priced reprints, while the copy owners were forced to find new books to publish, and to exploit them to them full during the limited term of copyright which now existed. This gave authors a far stronger position *vis-à-vis* the trade, and enabled them to begin to make new demands. No longer satisfied with outright sales of their newly defined rights, authors began to look for profit-sharing arrangements, or even for income related to the number of copies sold. Out of this there emerged two recognizably modern groups: publishers and professional authors.”)

<sup>127</sup> Statute of Anne, *supra* note \_\_ (providing that “after the expiration of the said term of 14 years, the sole right of printing or disposing of copies shall return to the authors thereof, if they are then living”); *see generally* Zimmerman, *supra* note \_\_, at 1138 (“Prior to 1813, protection was provided for a term, with the possibility of a renewal, or second, term if the author was still alive when the first term ended. Rights to the work were supposed to revert to, or be reinvested in, the author at the beginning of the second term.”).

<sup>128</sup> *See* FEATHER, A HISTORY, *supra* note \_\_, at 103 (“[Pope] used the law to defend his copyrights, and had a crucial role in establishing that after the first 14-year term of protection the rights in a copy reverted to the author, although in fact few if any other authors followed his example.”).

<sup>129</sup> This complicated case involved issues of concurrent co-ownership and temporal fragmentation. As Feather recounts: “Gilliver had sold a one-third share in *The Dunciad* to John Clarke, who subsequently sold it to John Osborne, who, in his turn, sold it to Lintot. Lintot bought this share in January 1740, and in December 1740 he bought the remaining two-thirds from Gulliver. On that basis he printed an edition, but Pope sued on the grounds that under the Act the rights had reverted to him, as author, when fourteen years had elapsed after publication . . . .” FEATHER, PUBLISHING, *supra* note \_\_, at 78-79.

<sup>130</sup> *See generally* SEVILLE, *supra* note \_\_, at 225 (“The Act of Anne had given a fourteen-year term, after which ‘the sole right of printing or disposing of copies shall return to the authors thereof, if they are then living, for another term of 14 years’. The 1814 Act consolidated this term by granting a definite twenty-eight years from the date of publication ‘and also, if the author shall be living at the end of that period, for the residue of his natural life’. Little case law had been generated on this issue, largely because book trade practice rendered disputes unlikely and unnecessary.”).

<sup>131</sup> *Carnan v. Bowles*, 2 Bro. C.C. 80, 29 Eng. Rep. 45 (Ch. 1786); *Rundell v. Murray*, Jac. 315, 37 Eng. Rep. 868 (Ch. 1821); *see also* *Fred Fisher Music Co. v. M. Witmark & Sons*, 318 U.S. 643, 648 (1943) (“English courts held that the author’s right of renewal, although contingent upon his surviving the original fourteen-year period,

ordering thus produced temporally unified ownership, although the law made temporal fragmentation theoretically possible. Again, this situation would gradually change as the publishing marketplace opened up and authors gained bargaining power in the wake of *Donaldson*.

#### 4. *Atomism Across Multiple Dimensions*

The defining achievement of the Statute of Anne—at least as it was eventually interpreted in *Donaldson*—was its elimination of the Stationers' Company monopoly on copyright ownership.<sup>132</sup> Subject to formalities that limited proliferation to some extent, the legal regime dramatically broadened the potential distribution of ownership in an era of literary growth. The law also potentially changed the impact of fragmentation, as more people became eligible to enter into the complex co-ownership arrangements that were already established during the Stationers' Company regime.

But the atomizing impact of these developments was tempered by countervailing legal and practical circumstances. Consolidation and unification of rights was often achieved through private ordering, especially early on when the stationers used their ongoing ownership of the most valuable copyrights to maintain their oligopolistic control of the publishing industry.

*Donaldson* and related developments eventually started to make the publishing market more competitive in the late eighteenth century. The distribution and wide-spread fragmentation that had been only a theoretical possibility became more common, laying the groundwork for increasing atomism that, as we will see, would characterize Anglo-American copyright in the nineteenth century.

If the Stationers' Company Regime demonstrated how the benefits of holism can be achieved through state-sanctioned-monopoly—at great cost in terms of competition, freedom of speech, and authorial autonomy—the eighteenth century experience under the Statute of Anne demonstrates how legal changes that appear to impose a more atomistic ownership structure (distributed among individual authors, broken into temporal fragments, etc.), can be susceptible to consolidating and unifying private ordering. This holistic private ordering helps to alleviate the costs otherwise imposed by atomism. But it can also result from and perpetuate collusive practices that echo those of the Stationers' Company monopoly.

At the close of the eighteenth century, it was an open question whether the copyright system established by the Statute of Anne

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could be assigned, and that if he did survive the original term he was bound by the assignment.”); Zimmerman, *supra* note \_\_\_, at n. 70 (discussing the implications of *Carnan*).

<sup>132</sup> See generally PATTERSON, *supra* note \_\_\_ at 147 (“Although the author had never held copyright, his interest was always promoted by the stationers as a means to their end. . . . The draftsmen of the Statute of Anne put these arguments to use, and the author was used primarily as a weapon against monopoly.”).

could continue to avoid the difficulties posed by atomism even as the publishing marketplace became more competitive and authors gained market power. This was also the point at which the United States inherited the legal structures that the Statute of Anne put in place. In the next section, I focus on that inheritance, and the way the copyright law and marketplace developed in the United States in the nineteenth century.

### C. Nineteenth Century Copyright in the United States

The first U.S. copyright statute was the Copyright Act of 1790, with which Congress exercised some of its constitutional authority to “promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”<sup>133</sup> The 1790 Act was preceded by earlier state laws,<sup>134</sup> and by some piecemeal colonial printing privileges.<sup>135</sup> But its foremost model was clearly the Statute of Anne—with which it overlapped in terms of its subject matter, the initial distribution and transferability of copyright ownership, and the susceptibility of that ownership to various types of fragmentation.<sup>136</sup>

As for subject matter, the 1790 Act granted copyright protection to “map[s], chart[s], and book[s].”<sup>137</sup> As with the Statute of Anne,<sup>138</sup> this language appears to have been interpreted flexibly to include a range of printed matter including printed plays and sheet music.<sup>139</sup>

The Act followed the Statute of Anne in bestowing its initial benefit on individual authors—making wide distribution of ownership at least theoretically possible.<sup>140</sup> Also as in England, copyrights were understood to be assignable.<sup>141</sup>

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<sup>133</sup> U.S. Const. Art. I, sec. 8.

<sup>134</sup> See generally PATTERSON *supra* note \_\_\_, at 183-192; Oren Bracha, *The Ideology of Authorship Revisited: Authors, Markets, and Liberal Values in Early American Copyright*, 118 YALE L.J. 186, 198 (2008); Francine Crawford, *Pre-Constitutional Copyright Statutes*, 23 BULL. COPYRIGHT SOC’Y U.S. 11 (1975).

<sup>135</sup> Bracha, *supra* note \_\_\_, at 197 & n. 27.

<sup>136</sup> See generally PATTERSON *supra* note \_\_\_, at 199-200; PAUL GOLDSTEIN, COPYRIGHT’S HIGHWAY 40 (rev’d ed. 2003); R. Anthony Reese, *Innocent Infringement in U.S. Copyright Law: A History*, 30 COLUM. J.L. & ARTS 133, 148 & n. 58 (2007). *But cf.* Paul M. Schwartz & William Michael Treanor, *Eldred and Lochner: Copyright Term Extension and*, 112 YALE L.J. 2331, n. 271 (2003) (“[T]he fact that the relevant British statute was apparently drawn on as a model does not mean that the Founders (including the members of the First Congress) embraced the worldview and the fears of those who adopted the earlier statute.”).

<sup>137</sup> Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124, 124 (repealed 1802) [hereinafter 1790 Act].

<sup>138</sup> See discussion *supra* at note \_\_\_ and accompanying text.

<sup>139</sup> There is scant early caselaw on the topic, but Jane Ginsburg reports that “a review of early copyright registration records suggests that ‘book’ was broadly understood to encompass dramatic and musical works.” Ginsburg, *“Une Chose Publique,” supra* note \_\_\_, at 661.

<sup>140</sup> This was not the practice elsewhere. As Jane Ginsburg observes, “[T]his author-focus was an innovation: only in England, under the 1710 Statute of Anne, did the law then vest authors with a property right in their creations. Elsewhere in Europe, booksellers’ printing privileges prevailed: local rulers granted monopolies to those who

As for fragmentation of ownership, the 1790 Act was like the Statute of Anne in initially creating only one core exclusive right (the right to print verbatim copies). Again, that one right was subject to fragmentation between multiple concurrent owners and also between current and future interest holders (of fourteen-year initial and renewal terms).<sup>142</sup>

In light of these formal similarities between the Statute of Anne and the copyright act enacted in the United States in 1790, my assessment of atomism in the first century of U.S. copyright protection echoes the preceding analysis to some extent. The U.S. context differed in ways that changed the practical impact of the statute, however.<sup>143</sup> What is more, the creative marketplace and the formal law quickly evolved over the course of the nineteenth century—with implications for proliferation, distribution, and fragmentation of copyrights. By the end of the century, we see signs of increasing anxiety about the effects of atomism, and innovations in both copyright policy and private ordering in response to that anxiety.

### *1. Proliferation: How Many Works Are Subject to Ownership?*

The 1790 Act's statutory subject matter of "map[s], chart[s], and book[s]"<sup>144</sup> was interpreted to protect a wide range of printed material.<sup>145</sup> In order to qualify for that protection, works had to be registered with the local district court; proof of registration had to be published in a newspaper,<sup>146</sup> and the work had to be deposited with the secretary of state.<sup>147</sup> Additional requirements were soon added: The 1802 Act added the requirement that published copies of protected works be marked with a copyright notice.<sup>148</sup>

Over the course of the nineteenth century, the 1790 subject matter was gradually augmented by both judicial interpretations and express

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invested in the publication of works, whether by contemporary or ancient authors. Today, we might call printing privileges a 'best exploiter' regime, for the law placed the exclusive rights in the hands not of those who created the works ..., but of those who assured their public dissemination. Copyright, by contrast, does not seek merely to promote the distribution of works to the public. It also aims to foster their creation. In the words of the Statute of Anne, copyright is 'for the Encouragement of Learned Men to Compose and Write useful Books ....' Similarly, the U.S. Constitution recognizes that the 'Progress of Science' ... requires care for authors." Ginsburg, *The Concept of Authorship*, *supra* note \_\_\_\_, at 1064.

<sup>141</sup> See generally Bracha, *supra* note \_\_\_\_, at 256-57 (discussing assignability under both the Statute of Anne and the 1790 Act).

<sup>142</sup> 1790 Act, *supra* note \_\_\_\_, § 1.

<sup>143</sup> See generally GOLDSTEIN, *supra* note \_\_\_\_, at 40 (describing both the similarities between early copyright in the United States and England, and the "distinctive forces" that "shaped American copyright law").

<sup>144</sup> 1790 Act, *supra* note \_\_\_\_, § 1.

<sup>145</sup> See Ginsburg, "Une Chose Publique," *supra* note \_\_\_\_, at 661.

<sup>146</sup> 1790 Act, *supra* note \_\_\_\_, § 3; see also *Wheaton v. Peters*, 33 U.S. 591, 662 (1834).

<sup>147</sup> 1790 Act, *supra* note \_\_\_\_, § 4, see also *Wheaton*, 33 U.S., at 662.

<sup>148</sup> Act of Apr. 29, 1802, ch. 36, 2 Stat. 171 (1802); see also *Wheaton*, 33 U.S., at 663.

statutory amendments that expanded the categories of subject matter eligible for protection.<sup>149</sup> These expansions took account of innovations in creative practice and technology—innovations that transformed the creative marketplace much more dramatically than had the eighteenth century literary innovations described above.<sup>150</sup> As the Supreme Court would later observe of these developments: “As our technology has expanded the means available for creative activity and has provided economical means for reproducing manifestations of such activity, new areas of federal protection have been initiated.”<sup>151</sup>

For example, photography was invented in the early nineteenth century in France,<sup>152</sup> with rapid developments in processing and camera technology following in England and the United States.<sup>153</sup> Civil war photography served as an important early demonstration of the potential of the new technology.<sup>154</sup> In 1865 amendments to the Copyright Act, Congress added photographs and negatives to the list of copyrightable subject matter.<sup>155</sup> In the course of its opinion holding that the extension was within Congress’s constitutional authority, the Supreme Court speculated that photographs had not been added to the statute in an earlier amendment because “they did not exist, as photography, as an art, was then unknown, and the

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<sup>149</sup> In addition to the expansion to photography, discussed below, in 1802 “historical or other print[s]” were added to the statutory subject matter; in 1831 musical compositions were added and in 1856 dramatic compositions were added (although some courts had already interpreted “books” to include printed music and plays, as noted above). In 1870 statutes and other works of art were added. *See generally* Goldstein v. California, 412 U.S. 546, 562 n. 17 (1973).

Subject matter also expanded in England during this time. *See generally* ZORINA KAHN, *THE DEMOCRATIZATION OF INNOVATION* 231 (2005) (“Between 1735 and 1875 fourteen Acts of Parliament amended the initial copyright legislation. Copyrights extended to sheet music, maps, charts, books, sculptures, paintings, photographs, dramatic works and songs delivered in a dramatic fashion, and lectures outside of educational institutions.”).

<sup>150</sup> On the connection between technological developments and expansion of copyrightable subject matter, see generally Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 63 (2002-2003) (“Copyright initially developed in response to the printing press and gradually evolved to encompass other methods of mechanically store and reproducing works of authorship, such as photography, motion pictures, and sound recordings.”).

<sup>151</sup> *Goldstein*, 412 U.S., 562 & n. 17.

<sup>152</sup> *See generally* RODNEY CARLISLE, *SCIENTIFIC AMERICAN INVENTIONS AND DISCOVERIES: ALL THE MILESTONES IN INGENUITY—FROM THE DISCOVERY OF FIRE TO THE INVENTION OF THE MICROWAVE OVEN* 254 (2004).

<sup>153</sup> *Id.* at 246-47.

<sup>154</sup> *See* Christine Haight Farley, *The Lingering Effects of Copyright’s Response to the Invention of Photography*, 65 U. PITT. L. REV. 385, 400-401 (2004).

<sup>155</sup> Copyright Act of 1865, ch. 126, 13 Stat. 540, available at [http://www.copyrighthistory.org/htdocs/data/useimage/pdf/us\\_1865/us\\_1865\\_im\\_1\\_1\\_st.pdf](http://www.copyrighthistory.org/htdocs/data/useimage/pdf/us_1865/us_1865_im_1_1_st.pdf) (“[T]he provisions of [the Copyright Act of 1831] shall extend to and include photographs and the negatives thereof which shall hereafter be made, and shall enure to the benefit of the authors of the same in the same manner, and to the same extent, and upon the same conditions, as to the authors of prints and engravings.”); *see also* *Goldstein*, 412 U.S., 562 n. 17 (“In 1865, when Matthew Brady’s pictures of the Civil War were attaining fame, photographs and photographic negatives were expressly added to the list of protected works.”).

scientific principle on which it rests, and the chemicals and machinery by which it is operated, have all been discovered long since.”<sup>156</sup>

Such innovations in creative technology, and corresponding expansions in the statutory definition of protectable subject matter, coincided with explosive growth in the literary publishing industry.<sup>157</sup> As Oren Bracha summarizes:

Beginning in the second quarter of the nineteenth century, the publishing industry underwent fundamental changes, advancing dramatically during the century. For the first time, conditions appeared for the emergence of a national mass market for books: broad demand, mass production capabilities, relatively cheap book commodities, and national patterns of production and marketing. In the decades leading up to the Civil War, the organization of the industry was radically transformed. The traditional artisan-based printing craft was gradually replaced by a capitalist commodity industry. . . . The outcome of all these changes was a new, extremely competitive, and commercialized publishing industry.<sup>158</sup>

Thus, over the course of the nineteenth century more and more books were being published in the United States, while at the same time new types of creativity were being added to the pool of protectable works, all setting the stage for proliferation of copyrights.

As under the Statute of Anne during eighteenth century England, however, the practical effects of the expansion of both creativity and subject matter eligibility were limited by the formal requirements (registration and the other formalities noted above) that ensured that not every instance of creative proliferation yielded ownership proliferation. Indeed, formalities loomed even larger here in the United States.<sup>159</sup> The requirements were imposed more strictly than in England,<sup>160</sup> and many authors did even attempt to comply.<sup>161</sup>

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<sup>156</sup> *Burrow-Giles Lithographic Co. v. Saroni*, 111 U.S. 53, 58(1884).

<sup>157</sup> HELLMUT LEHMANN-HAUPT, *THE BOOK IN AMERICA: A HISTORY OF THE MAKING AND SELLING OF BOOKS IN THE UNITED STATES* 71 (1951) (“[I]n the first half of the nineteenth century, were evolved new principles in type-casting and setting, in papermaking, and in press building which changed printing from an art to an industry, removing it from the household to the factory stage of development.”)

<sup>158</sup> Bracha, *supra* note \_\_\_, at 210-211.

<sup>159</sup> Furthermore, the growth in publishing in the nineteenth century was driven in part by the exploitation of foreign works that were not protected by the U.S. law. “Mass-market publishing began in this country as a combination of technological innovation and piracy. The advent of the steam-powered cylinder press and the use of stereotyped plates and cheaper bindings brought about a technological revolution which was furthered by the refusal of the United States government to recognize copyright on foreign works. During the first paperback revolution in the early 1840s, newspapers printed English and French novelists in cheap editions. Called ‘broadsheets’ or ‘supplements,’ they were hawked by newsboys on the streets and sold through the mail.” LEWIS COSER, *ET AL.*, *BOOKS: THE CULTURE AND COMMERCE OF PUBLISHING* 20 (1982).

<sup>160</sup> *See generally* KAPLAN, *supra* note \_\_\_, at 26-27 (“American law thus started from the same baseline as the English, but with us there was added an insistence on

Many others intended to claim their copyrights but made errors of one sort or another that resulted in the forfeiture of their rights. Economic historian Zorina Kahn reports on the resulting controversies:

18 percent of copyright cases [from 1790-1909] dealt with the question of whether the copyright owner had lost enforcement rights because of abandonment, or because they failed to comply with the requirements of the statute. . . . Copyrights were overturned on seemingly inconsequential grounds: a painting had not been described in the registration; a copyright mark was omitted or its placing was inappropriate; the copyright notice had not been put on every copy of the work . . . .<sup>162</sup>

So not every instance of creative proliferation resulted in proliferation of ownership. But copyright registrations did increase rapidly during this period of creative innovation and expansion of publishing.<sup>163</sup> Of course works were exiting the copyright universe even as new ones entered: in 1834 the Supreme Court in *Wheaton v. Peters*<sup>164</sup> rejected the notion of perpetual common law copyright in published works, echoing the interpretation of the Statute of Anne in

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punctilios which has continued, with occasional displays almost of savagery in forfeiting copyrights, down to recent days"); *id.*, at 26 (observing that English authority was to the effect "that failure to satisfy a formality—registration at Stationers' Hall—merely defeated recovery of the statutory penalties for infringement and left intact claims for general relief" (citing *Beckford v. Hood*, 7 T.R. 620, 101 Eng. Rep. 1164 (K.B. 1798)); Ginsburg, "*Une Chose Publique*", *supra* note \_\_\_, at 660 ("[W]here the English statutes and their early judicial interpretations confined formalities to specific statutory remedies, the US statutes conditioned the existence and enforceability of the right on compliance with the registration and deposit formalities. If there was any ambiguity regarding the availability of general common law remedies for violations of the 1790 Act in the absence of compliance with formalities, the 1802 Act, which added the notice formality and imposed it on 1790 Act works, left no doubt that the work would never attain federal protection if the formalities went unfulfilled.").

<sup>161</sup> KAHN, *supra* note \_\_\_, at 237 (calculating that "the majority of early authors did not apply for copyright protection"); Reese, *Innocent Infringement*, *supra* note \_\_\_, at 136-39 (documenting that "[e]ven within the limited classes of works for which copyright was available in its first century in the United States, many—perhaps most—works were never in fact protected by copyright").

<sup>162</sup> "[F]ilings increased at a rapid rate, from 2,212 between 1796 and 1831, to 10,073 in the following decade, and 40,000 in the period between 1841 and 1859. By 1870, when registration was rationalized in one office at the Library of Congress, approximately 150,000 entries had been lodged. . . . The annual count of items registered steadily increased. Part of the reason for the growth in registration was because of legislative policies, which continually expanded the scope of copyright protection." KAHN, *supra* note \_\_\_, at 245.

<sup>163</sup> KAHN, *supra* note \_\_\_, at 237; *see also id.* at 247-49 (describing how "[t]he copyright system evolved to encompass technological innovations and changes in the marketplace").

<sup>164</sup> 33 U.S. (8 Pet.) 591 (1834).

*Donaldson*.<sup>165</sup> The statutory duration was increased, however, to 28 years (with a possible 14-year renewal) in 1831.<sup>166</sup>

In sum, copyright ownership under the 1790 Act and its nineteenth century amendments proliferated due to growth in the creative marketplace and expansion in the legal definition of copyrightable subject matter. But ownership proliferation did not expand in lock-step with the growth of creativity: due to the strict formality requirements many works never acquired copyrights; due to the relatively brief duration, proliferation of new copyrights was accompanied by expiration of old ones.

## 2. *Distribution: How Many People Own Rights?*

Like the Statute of Anne, the Copyright Act of 1790 bestowed its initial benefit on individual authors—making wide distribution of ownership at least theoretically possible. Here, the solicitude for authors may have been more genuine than it initially was under the Statute of Anne. As Paul Goldstein reports, “[w]riters, not booksellers, led the drive for copyright in the United States.”<sup>167</sup> And authors featured in many of the formative controversies over the meaning of the Act.<sup>168</sup> The relative centrality of authors to the initial U.S. copyright scheme is not surprising. There was no publishing monopoly along the lines of the Stationers’ Company. And, as noted above, even in England authors were gaining esteem and bargaining power by the late eighteenth century.<sup>169</sup>

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<sup>165</sup> See discussion *supra* at note \_\_\_ and accompanying text.

<sup>166</sup> 1831 Copyright Act (Act of Feb. 8, 1831), ch. 16, §§1, 2, 4 Stat. 436, 436-37 (repealed 1870).

<sup>167</sup> GOLDSTEIN, *supra* note \_\_\_, at 40; see also FEATHER, PUBLISHING, *supra* note \_\_\_, at 151: (“Although clearly based on the 1710 British Act, American law went further in specifically recognizing the rights of the author.”); see also Bracha, *supra* note \_\_\_, at 197-98 (“Authorship discourse appeared and quickly rose to dominance after independence. During this period, and for the first time in America, authors began agitating for legal rights in their own works. These authors and their supporters, advocating individual privileges or general copyright regimes, gradually adopted the original authorship framework.”).

<sup>168</sup> *E.g.* Stowe v. Thomas, 23 F.Cas. 201 (1853); Wheaton v. Peters, 33 U.S. 591 (1834). *But cf.* KAHN, *supra* note \_\_\_, at 241 (“[T]he fraction of copyright plaintiffs who were authors (broadly defined) was initially quite low, and fell continuously during the nineteenth century. By 1900-1909, only 8.6 percent of all plaintiffs in copyright cases were the creators of the item that was the subject of the litigation....”).

<sup>169</sup> FEATHER, PUBLISHING, *supra* note \_\_\_, at 122 (“The ‘encouragement of learning’ may have originally been little more than a blanket of respectability to cover the naked commercialism of the late seventeenth- and early eighteenth-century booksellers, but it had become the core of the argument about literary property by the mid-1770s.”); Peter Jaszi, *Toward a Theory of Copyright: The Metamorphoses of ‘Authorship,’* 1999 DUKE L.J. 455, 471 (“The ‘authorship’ construct, although still incomplete when introduced into English law in 1710, was a charged receptacle, prepared to collect content over the next century. Although the concept of ‘authorship’ was introduced into English law for the functional purpose of protecting the interests of booksellers (and continued to do so throughout the eighteenth century and beyond, the term took on a life of its own as individualistic notions of creativity, originality, and inspiration were poured into it. ‘Authorship’ became an ideology. By the early nineteenth century, its array of

Despite the more favorable environment for authors, the early practice here was also for authors to assign their copyrights to publishers.<sup>170</sup> The market conditions made this private ordering less consolidating than it was under early English practice, however, because the publishing industry was less monopolistic.<sup>171</sup> Furthermore, over the course of the nineteenth century some U.S. authors were able to follow the lead of English innovators like Alexander Pope by retaining and managing their own copyrights.<sup>172</sup> These practices, combined with the advent of new technologies of creativity and the expanding literary marketplace documented above, resulted on balance in wider distribution of ownership in nineteenth century America than in either of the eras surveyed above.

### 3. *Fragmentation: Among How Many People Was Each Work Divided?*

*Tangible/Intangible Fragmentation:* The 1790 Act continued the model of copyright that separated ownership of a physical manuscript from ownership of the intangible rights to exploit the copyrighted work in statutorily specified ways. Again, these intangible rights were themselves subject to several types of fragmentation.

*Concurrent Co-Ownership:* Like the Statute of Anne, the 1790 Act granted a limited set of exclusive rights, namely “printing, reprinting, publishing and vending.”<sup>173</sup> Again, as under the Statute of Anne, rights to use protected subject matter in ways other than verbatim copying were not expressly granted by the statute. As Oren Bracha observes, “copyright . . . remained the traditional printer’s entitlement to print and sell copies of the product of the printing press.”<sup>174</sup> And “the notion embedded in the traditional scheme

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connotations and associations was essentially complete, and the interests of publishers had disappeared from the public discourse of copyright law.”).

<sup>170</sup> Many apparently made these assignments even in advance of registration, as Kahn reports that “[i]n the first decade after the enactment of the statute almost a half of all copyrights were issued to ‘proprietors’ such as publishers, rather than authors.” KAHN, *supra* note \_\_\_, at 236; *see also* Bracha, *supra* note \_\_\_, at 186 n. 278 (regarding interpretation of this data). *See generally* Bracha *supra* note \_\_\_, at 256 (discussing assignability in England and the United States).

<sup>171</sup> Still, in the United States “[t]he early publishing industry was a small and close-knit community, in which infringement was easy to detect and prosecute privately.” “[F]ew conflicts were recorded in the formal legal system in the antebelleum period.” And “fewer than eight hundred copyright disputes were brought before the courts between 1790 and 1909.” KAHN, *supra* note \_\_\_, at 238.

<sup>172</sup> “Emerson, for example, shrewdly increased the return from his books by the expedient of paying for their manufacture, and gave his publisher only a commission on their sales. Longfellow and Prescott owned the plates of their works, and sold printing rights to the publishers. . . . This practice of owning and leasing plates increased in ratio to the repute of indigenous literature; the major writer no longer sold his copyright for a flat fee, nor shared profits with the publisher as customary at the beginning of the century.” LEHMANN-HAUPT, *supra* note \_\_\_, at 112.

<sup>173</sup> 1790 Act, *supra* note \_\_\_.

<sup>174</sup> Bracha, *supra* note \_\_\_, at 199.

adopted by the 1790 Act was that of an exclusive right of making verbatim copies of a particular text.”<sup>175</sup>

The controversial 1853 case *Stowe v. Thomas* emphasized this limitation, holding that the preparation of a German translation of *Uncle Tom’s Cabin* did not infringe the copyright in the original.<sup>176</sup> The court described the statutory copyright as limited to “the exclusive right to multiply the copies of that particular combination of characters which exhibits to the eyes of another the ideas intended to be conveyed. This is what the law terms copy, or copyright.”<sup>177</sup> And, “[a] ‘copy’ of a book must, therefore, be a transcript of the language in which the conceptions of the author are clothed; of something printed and embodied in a tangible shape. The same conceptions clothed in another language cannot constitute the same composition, nor can it be called a transcript or ‘copy’ of the same ‘book.’”<sup>178</sup>

This narrow conception of the exclusive right of the copyright holder minimized the potential for fragmented ownership that might occur if both an original author and a subsequent author could claim fragmentary rights to a translation or adaptation of an original work (a possibility that arises, as we will see, when authors can claim rights in what are now called “derivative works”). Under the rule in *Stowe*, a subsequent author could translate, abridge, and make other derivative uses of a copyrighted work without asking permission from the original author. The second author would then hold an independent copyright in the new work. Although the substance of the two works would overlap, their copyrights would not. The two independent copyrights would correspond one-to-one to the separate works. As to each of the two works, ownership would be unified in a single owner, not fragmented between the authors of the old and new elements.

The one-dimensionality of the exclusive right under the 1790 Act also limited the extent to which initially unified copyrights were fragmented through subsequent transfers. As Abraham Kaminstein, who served as Register of Copyrights from 1960-1971,<sup>179</sup> later reflected, “[w]hen copyright consisted solely in the right to multiply

<sup>175</sup> Bracha, *supra* note \_\_\_, at 199-200; *see also* Reese, *Innocent Infringement*, *supra* note \_\_\_, at 142 (“Copyright barred verbatim or “duplicative” copying but allowed most “imitative” copying that went beyond duplication.”); Alfred C. Yen, *Restoring the Natural Law: Copyright as Labor and Possession*, 51 OHIO ST. L. REV. 517, n. 119 (1990).

<sup>176</sup> 23 F.Cas. 201, 206-07 (1853). *See generally* Oren Bracha, *Commentary on Stowe v. Thomas* (1853), in *Primary Sources on Copyright (1450-1900)*, L. Bently & M. Kretschmer, eds., [www.copyrighthistory.org](http://www.copyrighthistory.org); Paul Goldstein, *Derivative Rights and Derivative Works*, 30 J. COPYRIGHT SOC’Y U.S.A. 209, 213 (1983) (“American law during this period generally followed the results and rationale of the English decisions. The first American copyright act gave authors of maps, charts and books ‘the sole right and liberty of printing, reprinting, publishing, and vending’ these works. In one case, *Stowe v. Thomas*, the court defined ‘copies’ narrowly to hold that the defendant’s German translation did not infringe plaintiff’s rights in her English language work, *Uncle Tom’s Cabin*.”).

<sup>177</sup> *Stowe*, 23 F. Cas. at 206-07.

<sup>178</sup> *Stowe*, 23 F. Cas. at 207.

<sup>179</sup> *See* United States Copyright Office, Abraham L. Kaminstein, *available at* <http://www.copyright.gov/history/bios/kaminstein.pdf>.

copies, transfers were generally of the entire copyright; as long as the rights and the uses of copyright material remained few, the problems incident to transferring one of a bundle of rights were of little consequence.”<sup>180</sup>

Over the course of the nineteenth century, however, the nature of the exclusive rights granted by U.S. copyright law changed dramatically. Even before *Stowe v. Thomas*, more expansive views of copyright holders’ exclusive rights were being articulated. For example, the seminal 1841 case *Folsom v. Marsh*,<sup>181</sup> is best known for Justice Story’s articulation of the concept of “fair use” as a limitation on copyright that could apply, for example to “a fair and bona fide abridgement of an original work.”<sup>182</sup> But as L. Ray Patterson and other scholars have noted,<sup>183</sup> the fact that Story considered an abridgement to be potentially within the exclusive rights of the copyright holder in the first place<sup>184</sup> reflected a newly expansive view of those rights.<sup>185</sup> Story soundly rejected the argument that the copyright holder’s exclusive right was limited to printing verbatim copies:

It is certainly not necessary, to constitute an invasion of copyright, that the whole of a work should be copied, or even a large portion of it, in form or in substance. If so much is taken, that the value of the original is sensibly diminished, or the labors of the

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<sup>180</sup> Abraham Kaminstein, *Divisibility of Copyrights*, Study No. 11, in Copyright Law Revision Studies Nos. 11-13, prepared for the Senate Judiciary Committee, 86th Congress, 2d Sess., at 1 (1960).

<sup>181</sup> 10 F. Cas. 1035 (C.C.D. Mass. 1839) (Story, J., riding circuit).

<sup>182</sup> *Folsom*, 10 F. Cas., 349.

<sup>183</sup> See, e.g., L. Ray Patterson, *Folsom v. Marsh and its Legacy*, 5 J. INTELL. PROP. L. 431, 432 (1998) (“[Justice Story] proceeded to redefine infringement, which in his hands became any copying, duplicative or imitative, in whole or in part of the copyrighted work. This redefinition of infringement enlarged the copyright monopoly . . . .”); L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 VAND. L. REV. 1, 40 (1987) (“The result of Story’s opinion in *Folsom* was to enlarge protection for the copyright owner.”); see generally R. Anthony Reese, *The Story of Folsom v. Marsh: Distinguishing Between Infringing and Legitimate Uses*, in JANE C. GINSBURG & ROCHELLE COOPER DREYFUSS, EDS., *INTELLECTUAL PROPERTY STORIES* (2006).

<sup>184</sup> “But, then, what constitutes a fair and bona fide abridgment, in the sense of the law, is one of the most difficult points, under particular circumstances, which can well arise for judicial discussion. It is clear, that a mere selection, or different arrangement of parts of the original work, so as to bring the work into a smaller compass, will not be held to be such an abridgment. There must be real, substantial condensation of the materials, and intellectual labor and judgment bestowed thereon; and not merely the facile use of the scissors; or extracts of the essential parts, constituting the chief value of the original work.” *Folsom*, 10 F.Cas., at 345.

<sup>185</sup> See generally Bracha, *supra* note \_\_\_\_, at 229 (“Ironically, the fair use doctrine is commonly celebrated today as one of the major safeguards against overexpansion of copyright protection. At the time it was introduced by Justice Story, however, it was a vehicle for a radical enlargement of the scope of copyright. The introduction of fair use fundamentally changed copyright’s baseline. Formerly, infringement was limited to near-verbatim reproduction and all other subsequent uses were considered legitimate. In the new fair use environment, all subsequent uses became presumptively infringing unless found to be fair use.”)

original author are substantially to an injurious extent appropriated by another, that is sufficient, in point of law, to constitute a piracy pro tanto. The entirety of the copyright is the property of the author; and it is no defence, that another person has appropriated a part, and not the whole, of any property. Neither does it necessarily depend upon the quantity taken, whether it is an infringement of the copyright or not. It is often affected by other considerations, the value of the materials taken, and the importance of it to the sale of the original work.<sup>186</sup>

This and other judicial expansions of copyright holders' exclusive rights were confirmed in subsequent case law and statutory amendments in the late nineteenth and early twentieth centuries.<sup>187</sup> In 1856 copyright holders' exclusive rights were expanded to cover the right to publicly perform dramatic works<sup>188</sup>; in 1870 translation and dramatic adaptation were added<sup>189</sup>; in 1897 a public performance right was added for dramatic musical compositions;<sup>190</sup> the 1909 Act added the right to translate and "make other versions" of literary works.<sup>191</sup>

Thus, over the course of the nineteenth century, copyright in the United States was transformed from a single right to print verbatim copies of books, to a multifaceted bundle of rights attached to a wide variety of intangible works of authorship. This bundle was susceptible to a new type of fragmentation, in which rights to exploit a copyrighted work in different ways could be divided among separate owners. Registrar Kaminstein later observed how the copyright landscape had changed by the end of the nineteenth century: "The turn of the century . . . saw copyright departing from its original concentration on the publishing right; it now included rights of translation, dramatization and of public performance in dramatic and musical compositions. Copyright was no longer a single right, but had become an aggregation or bundle of rights, which might conveniently be referred to as 'copyright' but was in reality, many copyrights. . . . This is a very different situation from 1790 and the single right of publication."<sup>192</sup> The prospect for fragmentation of the

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<sup>186</sup> *Folsom*, 10 F.Cas., at 348.

<sup>187</sup> See generally Bracha, *supra* note \_\_\_, at 230 ("In the decades that followed [Folsom], this new broader understanding of copyright protection gradually took over."); Goldstein, *Derivative Rights*, *supra* note \_\_\_, at 211-25.

<sup>188</sup> Act of August 18, 1856, 11 Stat. 138; see also *Daly v. Palmer*, 6 Fed. Cas. 1132 (C.C.S.D. N.Y. 1868) (interpreting public performance right); see generally Goldstein, *Derivative Rights*, *supra* note \_\_\_, at 213-215.

<sup>189</sup> Act of July 8, 1870, ch. 230, § 86, 16 Stat. 198, 122.

<sup>190</sup> Act of Jan. 6, 1897, ch. 4, § 4966, 29 Stat. 481.

<sup>191</sup> Copyright Act of 1909, ch. 320, § 1(b), 35 Stat. 1075, 1076.

<sup>192</sup> Kaminstein, *supra* note \_\_\_, at 3; see also Bracha, *supra* note \_\_\_, at 257 ("In the second half of the nineteenth century, the pressures to locate ownership away from authors grew, and the strain on assignability as a mediating mechanism intensified. This mounting pressure was a result of changing economic practices and of the growing relevance of copyright to various branches of industry. Economic and creative projects

various sticks in this copyright bundle added to the types of fragmentation observed in previous eras—co-ownership of the undivided copyright, and temporal fragmentation between current and future interest holders.

As to concurrent co-ownership: as under the Stationers' Company regime and the Statute of Anne, owners of copyrights under the 1790 Act could assign them to multiple people. As the Supreme Court of Maine observed in the 1874 case *Carter v. Bailey*, “[W]henever the legal estate has once vested through a compliance with the statute, it is assignable. The assignment is not limited to one, by may be to more than one—nor to the whole interest, but any owner may sell and assign any aliquot part of his undivided interest.”<sup>193</sup>

*Temporal Fragmentation:* Also like the Statute of Anne, the 1790 Act created the potential for temporal fragmentation by granting both initial and renewal terms. The renewal term was again contingent on the author surviving the initial fourteen years (a contingency that was removed in the 1831 statute).<sup>194</sup> But if the author did survive, the language of the Act provided that the term could be claimed by either by the author himself or his “executors, administrators or assigns”<sup>195</sup>—language that appeared to endorse the practice of assigning contingent renewal terms in advance.<sup>196</sup>

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that were based on a collaborative effort of a large number of individuals gradually became more common and more economically significant. Such works that involved a collaborative multi-contributor effort included, for example, catalogs, dictionaries, encyclopedias, and magazines. If creating a dictionary was at the beginning of the century a one-person project, by its end it was much more likely to be a multi-participant initiative, directly coordinated and supervised by a publisher. Moreover, as economic activity moved from individuals to firms, a rising share of this collaborative creation came to take place in the employment context. Other changes in copyright law made these rising forms of collaborative creation increasingly relevant to copyright discourse. The steady expansion of copyrightable subject matter and the continuous decline of the originality bar brought within the auspices of copyright many of the economic activities that were likely to have such patterns of creation. Both older industries like cartography and lithography and new ones such as advertisement and magazine publishing were likely to involve collaborative creation or a hierarchical setting and to produce a demand to locate ownership away from the actual creators.”)

<sup>193</sup> 64 Me. 458, 463 (1874).

<sup>194</sup> “[I]f, at the expiration of the said term, the author or authors, or any of them, be living, and a citizen or citizens of these United States, or resident therein, the same exclusive right shall be continued to him or them, his or their executors, administrators or assigns, for the further term of fourteen years.” 1790 Act, *supra* note \_\_\_\_\_. See generally Barbara A. Ringer, *Renewal of Copyright*, in Copyright Law Revision Studies Nos. 29-31, prepared for the Senate Judiciary Committee, 86th Congress, 2d Sess., at 110 (1960). The 1831 amendment changed the renewal scheme so that if an author did not survive the initial term, the renewal interest passed to statutorily designated heirs. Act of February 3, 1831, 4 Stat. 436; see also *Fred Fisher Music Co. v. M. Witmark & Sons*, 318 U.S. 643, 650 (1943).

<sup>195</sup> 1790 Act, *supra* note \_\_\_\_.

<sup>196</sup> Unlike the Statute of Anne, the Act’s renewal language referred expressly to the possibility that a renewal term could “be continued to” an author’s “assigns,” which the Supreme Court later took to be an adoption of the English courts’ view about the assignability of the contingent renewal term. *Fred Fisher*, 318 U.S., 647-50 (“In view of the language and history of this provision, there can be no doubt that if the present case

#### **4. *Atomism Across Multiple Dimensions***

The 1790 Copyright Act was modeled on the Statute of Anne and, like its predecessor, it had at its core a fundamentally atomistic feature—initial allocation of ownership to individual authors. But, also as in England in the eighteenth century, early practice under the first U.S. copyright act counteracted atomism: failure to satisfy strict formality requirements limited proliferation; private ordering reconsolidated and unified ownership that was distributed and fragmented by default.

Over the course of the nineteenth century, however, the potential for greater atomism embedded in the statutory scheme began to be realized, as new types of creativity were created and protected, as new fragmentary rights were added the copyright bundle, and as more authors gained the bargaining power to retain distributed control of their copyrights or fragments of them. In light of these developments, the type of piecemeal private ordering that had limited atomism and its consequences in the past became less tenable, triggering anxiety about atomism that characterized the late nineteenth and early twentieth centuries, the era to which I now turn.

#### **E. Atomism Anxiety at the Turn of the Twentieth Century**

Courts and legislators of the late nineteenth and early twentieth centuries expressed anxiety about the consequences of this increasingly atomistic copyright, and devised doctrinal innovations designed to address those consequences. These legal changes were accompanied by innovations in holistic private ordering. Here I highlight several of these developments—some of which were focused on the problems caused by broad distribution of rapidly proliferating copyrights, some of which targeted the problems caused by fragmented ownership.

##### **1. *Proliferation: How Many Works Were Subject to Ownership?***

The anxiety to which I refer is most evident in policies addressing distribution and fragmentation, which I discuss in the balance of this section. These policies can be understood as a counterbalance to continued copyright proliferation in this era.<sup>197</sup> The 1909 Act

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had arisen under the Act of 1790, there would be no statutory restriction upon the assignability of the author's renewal interest.”).

<sup>197</sup> See generally Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CAL. L. REV. 2187, 2192-93 (2000) (documenting the expanding coverage of copyright in the early twentieth century to include the products of new creative technologies and observing that copyright in this period “showed an adaptability to new technologies that would serve it well all century long”).

included a broad new definition of copyrightable subject matter, namely “all the writings of an author.” And it forestalled the expiration of copyright by again extending the duration—to twenty eight years with a possible 28-year renewal term.<sup>198</sup>

## 2. *Distribution: How Many People Owned Rights?*

Recall that assignment practices under the Statute of Anne and the Copyright Act of 1790 helped to alleviate the atomizing effects of the initial allocation of copyright ownership to authors. Ownership was initially distributed broadly, but it was then often consolidated into the hands of publishers who took assignments from individual authors. As Oren Bracha observes, “[assignability] ended up being the major mechanism for mediating the often conflicting demands of authors’ ownership and economic exploitation. The early American case law that firmly located ownership in the hands of authors, in the absence of express assignment, was grounded in this framework.”<sup>199</sup>

But developments over the course of the nineteenth century began to challenge this solution. In addition to the general growth and increased mechanization of the publishing industry, described above, the products of publishing tended increasingly to include collections of the work of many individual authors: anthologies, magazines, encyclopedias, etc. Assembling the rights necessary to exploit these multi-component products became increasingly challenging for their publishers. In other words, the rise of these collaborative projects increased the costs imposed by broadly distributed copyright ownership. The resulting anxiety about the insufficiency of voluntary assignments to overcome these costs contributed to both judicial and statutory changes that consolidated ownership as a matter of law through the “work-for-hire” doctrine.<sup>200</sup>

The work-for-hire doctrine was codified in a provision of the 1909 Act specifying that “the word ‘author’ shall include an employer in the case of works made for hire.”<sup>201</sup> As documented in Catherine Fisk’s historical account,<sup>202</sup> this codification “made concrete, as well as catapulted forward, a change that had just begun in the case law”<sup>203</sup> away from a nineteenth century default rule that individual employee

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<sup>198</sup> 1909 Act, *supra* note \_\_\_\_.

<sup>199</sup> Bracha, *supra* note \_\_\_\_, at 256-57.

<sup>200</sup> Cf. Robert P. Merges, *The Law and Economics of Employee Inventions*, 13 HARV. J.L. & TECH. 1, 4 (1999) (observing in the related area of ownership of inventions, that “[t]he law of employed inventors implicitly addresses one key concern of anticommons theory. The prevailing legal regime solves the post-grant transactional bottleneck by permitting enforceable pre-assignment contracts. These agreements square away ownership issues—thus preventing costly bargaining breakdowns—before property rights are granted”); *id.* at 12 (“At the most basic level, the difference between employer and employee ownership is a matter of transaction costs.”).

<sup>201</sup> 1909 Act, *supra* note \_\_\_\_, at § 62.

<sup>202</sup> Catherine L. Fisk, *Authors at Work: The Origins of the Work-for-Hire Doctrine*, 15 YALE J.L. & HUMAN. 1 (2003).

<sup>203</sup> *Id.* at 62.

authors were the owners of works they created in the scope of their employment.

Both the statutory change and the preceding evolution in the case law were motivated in part by concerns about broadly distributed individual ownership of contributions to collaborative projects. As Fisk explains: “The change in default rules between the early nineteenth century and the early twentieth may be explained, in part, by a rise in the number of cases involving employees who participated in collaborative creative processes. The more the courts saw cases in which a number of people had contributed to the work, the more logical it was to accord the copyright to the representative of the collective—that is, the employer.”<sup>204</sup>

Individual employee ownership of contributions to collective projects raised the specter that the projects in their entireties would not be available for exploitation by anyone if transaction costs inhibited the contractual assembly of rights. This danger became more acute in the late nineteenth century, as “[t]he kinds of materials that were subject to copyright had expanded to include more materials prepared in a collaborative way in a corporate setting.”<sup>205</sup> Advocates of the statutory change emphasized the needs of the publishers of these collaborative works, “urg[ing] that publishers of encyclopedias and other works requiring the assistance of a large number of people needed some method other than individual assignments to obtain effective ownership of the copyright to the complete project.”<sup>206</sup>

The broad distribution of ownership of individual works interacted with temporal fragmentation in a way that was also addressed by the work-for-hire doctrine. The problem of assembling assignments could be especially pressing with regard to renewal rights, as the passage of time could make copyright holders difficult to identify and locate, requiring “searching all over the world for widows and legitimate children.”<sup>207</sup> The codified work-for-hire doctrine removed the need for difficult searches and negotiation by simply defining employers as authors (and thus owners of both initial and renewal terms) of copyrighted works prepared by individual employees.

*Innovations in Consolidating Private Ordering:* Where it applied, the work-for-hire doctrine eliminated the need for consolidation

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<sup>204</sup> *Id.* at 32.

<sup>205</sup> *Id.* at 68.

<sup>206</sup> *Id.* at 63; see also Bracha, *supra* note \_\_\_, at 254-55 (““In the conferences of interests groups that led to the Copyright Act of 1909, the representatives of several publishing industries pressed their need for an easy mechanisms for obtaining both initial ownership and the right of renewal. Assignment, they argued, was too burdensome and sometimes infeasible, especially when works prepared by numerous contributors were involved.”).

<sup>207</sup> Fisk, *supra* note \_\_\_, at 63 (quoting Samuel J. Elder’s statement in 1 LEGISLATIVE HISTORY OF THE 1909 COPYRIGHT ACT 56 (B. Fulton Brylawski & Abe Goldman eds., 1976)).

through private ordering.<sup>208</sup> It consolidated ownership in employers as a matter of law. But other activities involving the assembly of many separate works happened outside of the employment context. In these instances, U.S. courts often addressed distribution by accommodating consolidating private ordering.<sup>209</sup> For example, early twentieth century cases “strain[ed] to find, in the absence of express language between the parties to the contrary, that a magazine publisher acquired all rights in a contribution from the author.”<sup>210</sup>

At the same time, copyright owners were finding new ways to streamline and systematize the process of transacting with would-be licensors of their rights.<sup>211</sup> The foremost example of innovative private-ordering was the formation in 1914 of ASCAP: the American Society of Composers, Authors and Publishers.<sup>212</sup>

ASCAP was formed by owners of musical composition copyrights—both individual composers and music publishers—eager to enforce the public performance rights that had been established in 1897. After organizing a series of lawsuits that helped to establish their right to object to the performance of their compositions in restaurants and similar venues, the group established a mechanism that alleviated the transaction costs that might otherwise have made it

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<sup>208</sup> For an interesting discussion of the consolidation techniques employed by a purely private, norm-based system for protecting intellectual creations, see Dotan Oliar & Christopher Sprigman, *There's No Free Laugh (Anymore): The Emergence of Intellectual Property Norms and the Transformation of Stand-Up Comedy*, 94 VA. L. REV. 1787, 1865 (2008) (“Comedians’ norms regarding joint authorship, works made for hire, and transfer of material all work to concentrate ownership in a single rightsholder and constrain the choices comedians have in structuring property rights.”).

<sup>209</sup> *But cf.* DRONE ON COPYRIGHT 260 (“[W]hen a writer who is not specially employed for that purpose contributes an article to a cyclopedia, magazine, or other periodical, the natural presumption would be, in the absence of an express agreement or circumstances to the contrary, that he intended to give the right of using it only in that special publication; and, to establish a title to the copyright, it would be for the publisher to show that the author had consented to part with the absolute copyright.”).

<sup>210</sup> 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 10.01 (Rev. Ed.).

<sup>211</sup> Robert Merges lauds strong and exclusive intellectual property rights in part for the way in which the transaction costs they impose encourage this type of private ordering—an observation that suggests that extreme atomism may sometimes be self-correcting. See Merges, *Contracting Into Liability Rules*, *supra* note \_\_\_, at 1296-97 (“The initially higher transaction costs of property rule entitlements actually serve a benign purpose: they lead individual IPR holders to form CROs. These privately organized institutions then devolve standard rules of exchange that substantially lower transaction costs.”); *id.* at 1302-03 (“It is the high transaction costs associated with the initial entitlements that lead the parties to establish the organization—an organization that then dramatically lowers the costs of exchanging the rights.”). *Cf.* Merges, *New Dynamism*, *supra* note \_\_\_, at 184 (suggesting that “the increasing importance of the public domain may represent a partial self-correcting impulse in the IP system”).

In conversation about an earlier draft of this article, Eric Talley has made a related point: that the cycles of atomism and holism that I observe in the copyright arena more generally may reflect the fact that holistic policies become politically palatable only when atomism becomes extreme.

<sup>212</sup> On the history of ASCAP, see generally The American Society of Composers, Authors and Publishers, *ASCAP History*, <http://www.ascap.com/about/history>; Merges, *Contracting Into Liability Rules*, *supra* note \_\_\_, at 1329-1340; GOLDSTEIN, *supra* note \_\_\_, at 54-61.

difficult for those venues (and, later, radio stations) to license the rights to perform a wide variety of songs owned by distributed individuals.<sup>213</sup> As the Supreme Court later summarized: “In 1914, Victor Herbert and a handful of other composers organized ASCAP because those who performed copyrighted music for profit were so numerous and widespread, and most performances so fleeting, that as a practical matter it was impossible for the many individual copyright owners to negotiate with and license the users and to detect unauthorized uses.”<sup>214</sup>

Initially, ASCAP accomplished this through straightforward consolidation through private ordering: copyright owners licensed to ASCAP the exclusive rights of public performance of their songs.<sup>215</sup> Henceforth ASCAP (and only ASCAP) could license others to perform the songs in public.<sup>216</sup> ASCAP in turn granted non-exclusive blanket licenses to performance venues, eliminating the need for costly negotiations with individual copyright holders.<sup>217</sup> It became a one-stop-shop for public performance licensees, who could purchase blanket licenses to every work in the ASCAP catalog.

ASCAP was a one-stop-shop for blanket licenses and also the only shop in town (at least until its foremost competitor, BMI, was formed in 1939).<sup>218</sup> It offered no alternative to a blanket license to its entire catalog. And because its licenses from copyright holders were exclusive,<sup>219</sup> even the copyright holders themselves could not offer

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<sup>213</sup> See generally *Columbia Broadcasting System, Inc. v. American Society of Composers*, 400 F.Supp. 737, 741 (D.C.N.Y. 1975) (“Prior to ASCAP’s formation in 1914 there was no effective method by which composers and publishers of music could secure payment for the performance for profit of their copyrighted works. The users of music, such as theaters, dance halls and bars, were so numerous and widespread, and each performance so fleeting an occurrence, that no individual copyright owner could negotiate licenses with users of his music, or detect unauthorized uses. On the other side of the coin, those who wished to perform compositions without infringing the copyright were, as a practical matter, unable to obtain licenses from the owners of the works they wished to perform. ASCAP was organized as a ‘clearinghouse’ for copyright owners and users to solve these problems.”); Merges, *Contracting into Liability Rules*, *supra* note \_\_\_, at 1331-32 (noting that defendants “often complained about the practical difficulties of policing multiple performances,” but that courts considering ASCAP-initiated lawsuits did not “excuse infringement due to the expense of locating and bargaining with copyright holders”).

<sup>214</sup> *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1, 5 (1979).

<sup>215</sup> *Alden-Rochelle, Inc. v. American Soc. of Composers, Authors and Publishers*, 80 F.Supp. 888, 891 (D.C.N.Y. 1948).

<sup>216</sup> See generally *Alden-Rochelle*, 80 F.Supp., at 894 (describing exclusivity of ASCAP’s licensing authority).

<sup>217</sup> See generally *Columbia Broadcasting*, 400 F.Supp., at 742 (“An ASCAP blanket license gives the user the right to perform all of the compositions owned by its members as often as the user desires for a stated term, usually a year. Convenience is the prime virtue of the blanket license: it provides . . . access to a large pool of music without the need for the thousands of individual licenses which otherwise would be necessary to perform the copyrighted music used on radio stations and television networks in the course of a year.”)

<sup>218</sup> See generally *Columbia Broadcasting*, 400 F.Supp., at 742.

<sup>219</sup> “[P]rior to 1950, ASCAP, for all practical purposes, obtained exclusive rights from its members. The user did not have the alternative of dealing with individual

licenses on competitive terms. This type of consolidation through private ordering thus harkened back to the collusive practices of the Stationers' Company.<sup>220</sup>

And, indeed, ASCAP's practices were soon the object of an antitrust investigation by the Department of Justice.<sup>221</sup> The resulting consent decree resulted in a non-exclusive licensing scheme, such that—in theory, anyway—individual copyright holders could offer license on terms that differed from ASCAP's blanket licensing. “[T]he decree guarantees the legal availability of direct licensing of performance rights by ASCAP members.”<sup>222</sup> ASCAP and BMI continue to operate under consent decrees with the U.S. Department of Justice.<sup>223</sup>

In sum, anxiety about the ramifications of broad distribution of copyright ownership prompted changes in both copyright policy and industry practices in the late-nineteenth and early-twentieth centuries. The work-for-hire doctrine consolidated ownership of works prepared by individual employees by deeming employers to be authors (and therefore initial owners) as a matter of law. Outside of the work-for-hire context, courts interpreted copyright transactions in ways that

ASCAP members for individual licenses.”). Simon H. Rifkind, *Music Copyrights and Antitrust: A Turbulent Courtship*, 4 CARDOZO ARTS & ENT. L.J. 1, 7 (1985).

<sup>220</sup> As Paul Goldstein recounts: “The logic of ASCAP’s operations, particularly the logic of the blanket license, is the logic of monopoly: only by gathering all copyrighted compositions into its repertory could ASCAP give users a blanket license that would enable them to perform any musical composition without fear of a lawsuit.” GOLDSTEIN, *supra* note \_\_\_, at 57. See generally Randal C. Picker, *Unbundling Scope-of-Permission Goods: When Should We Invest in Reducing Entry Barriers?*, 72 U. CHI. L. REV. 189, 192-196 (2005) (“[T]he blanket license blocks entry in copyright collectives and may facilitate collusion among music composers.”).

<sup>221</sup> Cf. Merges, *Contracting Into Liability Rules*, *supra* note \_\_\_, at 1388 (arguing that “policy makers ought to consider removal of antitrust threats to organizational entrepreneurs. . . . The antitrust enforcement actions against patent pools and copyright CROs pose very real obstacles for anyone trying to knit firms together in a cooperative licensing venture”).

<sup>222</sup> *Broadcast Music*, 441 U.S., at 12. *But cf. id.*, at \_\_\_ (Stevens, J., dissenting) (“Neither CBS nor any other user has been willing to assume the costs and risks associated with an attempt to purchase music on a competitive basis. The fact that an attempt by CBS to break down the ASCAP monopoly might well succeed does not preclude the conclusion that smaller and less powerful buyers are totally foreclosed from a competitive market.”); also *Columbia Broadcasting*, 400 F.Supp., at 745 (“As to the third alternative specified in the consent decrees—the possibility of bypassing ASCAP and BMI entirely and seeking licenses for the specified compositions it wishes to perform directly from the copyright proprietors—CBS alleges that any attempt by it ‘to acquire such a large body of rights from the [individual copyright proprietors] . . . would be wholly impracticable . . . .”).

The relevant provision of the current consent decree is IV.A., which prohibits ASCAP from “[h]olding, acquiring, licensing, enforcing, or negotiating concerning any foreign or domestic rights in copyright musical compositions other than rights of public performance on a non-exclusive basis.” *U.S. v. American Society of Composers, Authors and Publishers*, Second Amendment Judgment (S.D.N.Y. 2001) available at <http://www.ascap.com/reference/ascapafj2.pdf>.

<sup>223</sup> *U.S. v. American Society of Composers, Authors and Publishers*, Second Amendment Judgment (S.D.N.Y. 2001) available at <http://www.ascap.com/reference/ascapafj2.pdf>; *United States v. Broadcast Music, Inc.*, 1996-1 Trade Cases (CCH) 71, 378 (S.D.N.Y. 1994).

promoted consolidation; and copyright owners themselves joined forces to make it easier for licensees to acquire consolidated rights to many works at once. In the case of ASCAP, this consolidation through private ordering was so comprehensive that it raised antitrust concerns that linger to this day (and that, as we shall see, have recently emerged in the context of new efforts at consolidation through private ordering).

### 3. *Fragmentation: Among How Many People Was Each Work Divided?*

The work-for-hire doctrine can be understood as a reaction to fragmentation as well as distribution. I described it above as a consolidating doctrine because it makes an employer the owner of many separate works prepared by individual employees. But it can also operate to unify ownership where multiple employees have labored together on fragments of a single work (e.g. a crew working on a movie). By consolidating ownership of all such contributions in the hands of the employer, the work-for-hire doctrine limits the costs involved in assembling the rights necessary to exploit such a work. But other fragmentation scenarios occur outside of the work-for-hire context. And in the same era in which the work-for-hire doctrine arose, we see other doctrinal developments that addressed anxiety about the atomistic effects of fragmented copyright ownership.

*Concurrent Co-Ownership and Joint Authorship:* The idea of co-ownership has been recognized throughout the history of Anglo-American copyright. Recall that both the Stationers' Company Ordinance and the Statute of Anne alluded to the possibility of co-ownership of copyright with plural references to "members," "proprietors," etc.<sup>224</sup> And under those regimes co-ownership seems to have been a relatively common phenomenon resulting from business practices in which publishers shared copyrights in order to share risk, while minimizing the resulting complexities by attempting to limit the trade in shares to only a closed club of publishers. There are few examples<sup>225</sup> of litigated disputes regarding the rights of co-owners, however, until late in the nineteenth century.

The first reported case in the United States involving the rights of copyright co-owners was *Carter v. Bailey*, introduced above.<sup>226</sup> The opinion opens with a clear statement of the issue: "The question presented is whether one owner in common of a copyright, who, at his sole expense has printed, published and sold the book copyrighted, is liable in the absence of any agreement *inter sese*, to account to his co-owner. We are not aware that this precise question has ever been

<sup>224</sup> See discussion *supra* at notes \_\_\_ and accompanying text.

<sup>225</sup> See FEATHER, PUBLISHING, *supra* note \_\_\_, at 77-79 (describing eighteenth-century disputes arising from complex co-ownership of rights to the works of British poet Alexander Pope).

<sup>226</sup> *Supra* note \_\_\_ and accompanying text.

decided.”<sup>227</sup> In ultimately holding that one of several co-owners need neither seek permission from his co-owners before exploiting the work, nor account to them for any profits earned, the court expressed anxiety about how fragmented ownership under the contrary rule could create barriers to dissemination of copyrighted works:

The public are interested in the development and promulgation of all new, wholesome ideas, and in new combinations and illustrations of old ones; and the most efficient mode of promulgating them is that afforded by the press. Without publication and some exclusive right thereto, the products of authors would prove comparatively profitless. The public, then, for the addition to its general stock of knowledge, and the author, in consideration of the pecuniary profit derivable therefrom, are jointly interested in the publication of new works. . . . But if none be allowed to enjoy his legal interest without the consent of all, then one, by withholding his consent, might practically destroy the value of the whole use. And a use only upon condition of accounting for profits, would compel a disuse, or a risk of skill, capital and time with no right to call for a sharing of possible losses. When one owner by exercising a right expressly conferred upon him, in nowise uses or molests the right, title, possession or estate of his co-owners, or hinders them from a full enjoyment, or sale and transfer of their whole property, we fail to perceive any principle of equity which would require him to account therefor.<sup>228</sup>

*Carter v. Bailey* was followed in the early twentieth century by a series of cases in which U.S. courts considered a special type of co-ownership—that arising not from assignment of a copyright to multiple owners but rather from initial authorship of a single work by multiple people. The first U.S. case expressly addressing the issue<sup>229</sup> was *Maurel v. Smith*, a dispute between three composers who had all contributed to a single opera.<sup>230</sup> In his 1915 opinion, Learned Hand established two important and enduring characteristics of copyright joint authorship. First, he approvingly cited English case law for the proposition that joint authorship arises as the product of a “joint

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<sup>227</sup> 64 Me. 458, 461 (1874).

<sup>228</sup> *Carter*, 64 Me., at 463-64. See generally George D. Cary, *Joint Ownership of Copyrights*, Study No. 12, in Copyright Law Revision Studies Nos. 11-13, prepared for the Senate Judiciary Committee, 86th Congress, 2d Sess., at 1 (1960); Note: *Accountability Among Co-Owners of Statutory Copyright*, 72 HARV. L. REV. 1550 (1959).

<sup>229</sup> *Maurel v. Smith*, 220 F. 195, 199 (S.D.N.Y. 1915) (“I have been able to find strangely little law regarding the rights of joint authors of books or dramatic compositions.”).

<sup>230</sup> *Maurel*, 220 F. 195 (S.D.N.Y. 1915), aff’d 271 F.211 (2d Cir. 1921).

laboring in furtherance of a common design.”<sup>231</sup> Second, he declared that the result of such joint authorship is that the collaborators “must share alike” in the *undivided* copyright unless they have expressly agreed otherwise.<sup>232</sup> Applying these rules, Hand concluded that the plaintiff in *Maurel* was one of three joint authors of the opera and was therefore entitled to a one-third interest in the corresponding copyrights. Importantly, that one-third did not correspond to a distinct fragment of the whole. Hand was following earlier English case law that had established that “one who contributes to such a joint production does not retain any several ownership.” Instead, each contribution “merges into the whole.”<sup>233</sup> And each owner has the right unilaterally to exploit the entire holistic work.

A series of subsequent Second Circuit opinions expanded the coverage of the joint authorship concept first recognized by Hand in *Maurel*. These cases also clearly established the holistic consequences of that categorization. By analogy to a tenancy in common in real property, each owner had an undivided interest in the entire combined work, with the right to exploit the copyright without seeking permission from his co-owners (albeit with a duty to account to them for his profits—a modification of the no-accounting rule of *Carter v. Bailey*).<sup>234</sup> This specific form of concurrent ownership involved multiple people; but ownership was not fragmented because no one had an independent right to exclude. The consequence of joint authorship was holistic concurrent ownership.

In each of these formative cases, the court emphasized the problems that would arise if the works at issue were instead subject to separate claims of individual ownership of their component parts by multiple contributors. For example, in *Maurel*, Judge Hand observed “no one can hope to measure the degree of contribution which the plaintiff made . . . and no one ought to try.”<sup>235</sup> In *Edward B. Marks*

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<sup>231</sup> *Maurel*, 220 F. at 199 (quoting *Levy v. Rutly*, L.R. 6 C.P. 523); *see also id.* at 200 (“When several collaborators knowingly engage in the production of a piece which is to be presented originally as a whole only, they adopt that common design, mentioned in *Levy v. Rutly*, *supra*, and unless they undertake expressly to apportion their contributions, they must share alike.”); *Edward B. Marks Music Corp. v. Jerry Vogel Music Co.*, 140 F.2d 266, 267 (1944) (“So far as we know, the first definition of ‘joint authorship’ is in *Levy v. Rutly*: ‘a joint laboring in furtherance of a common design; an agreement ‘to write a piece, there being an original joint design.’ This definition I accepted in *Maurel v. Smith*, when that case was before me in the district court, and we accept it now.”) (citations omitted)).

<sup>232</sup> “When several collaborators knowingly engage in the production of a piece which is to be presented originally as a whole only, they adopt that common design . . . and unless they undertake expressly to apportion their contributions, they must share alike.” *Maurel*, 220 F. at 200.

<sup>233</sup> *Maurel*, 220 F. at 201 (citing *Wallenstein v. Herbert*, 16 L.T.N.S. 453)).

<sup>234</sup> *See generally* *Picture Music, Inc. v. Bourne, Inc.*, 314 F.Supp. 640 (S.D.N.Y. 1970) (summarizing doctrinal development); Cary, *supra* note \_\_\_\_, at 93-96 (same).

<sup>235</sup> Referring to famous collaborations by the likes of Gilbert and Sullivan, Hand did not “think that it is in the least possible to undertake a satisfactory analysis of the extent of the mutual influences between the parts of such a piece. . . . [T]hey are like mosaics from which, though you may lift a stone, it loses the significance of its setting.” *Maurel*, 220 F. at 200.

*Music Corp. v. Jerry Vogel Music Co.*<sup>236</sup> he emphasized that the concept of joint authorship prevents multiple fragmentary owners from imposing inconsistent restrictions on the exploitation of one integrated work. “To allow the author to prevent the composer, or the composer to prevent the author, from exploiting that power to please, would be to allow him to deprive his fellow of the most valuable part of his contribution; to take away the kernel, and leave him only the husk.” Instead, as joint authors, “their separate interests will be inextricably involved, as are the threads out of which they have woven the seamless fabric of the work.”<sup>237</sup> Similarly, in what has come to be known as the “Melancholy Baby” case,<sup>238</sup> the court suggested that the atomism problems posed by musical works were potentially worse than those posed by encyclopedias (which, recall, had already prompted a statutory solution in the form of the work-for-hire definition): “The words and music of a song constitute a ‘musical composition’ in which the two contributions merge into a single work to be performed as a unit for the pleasure of the hearers; they are not a ‘composite’ work, like the articles in an encyclopedia, but are as little separable for purposes of the copyright as are the individual musical notes which constitute the melody.”<sup>239</sup> Similarly, in the “12<sup>th</sup> Street Rag” case<sup>240</sup> the court resisted a result that would give one collaborator a useless atomistic slice of an entire work: “The result reached in the district court would leave one of the authors of the ‘new work’ with but a barren right in the words of a worthless poem, never intended to be used alone. Such a result is not to be favored.”<sup>241</sup>

This anxiety about atomism lead to increasingly capacious understandings of the “common design” notion adopted in *Maurel*. In *Edward B. Marks*, the court established that the co-authors need not engage in any in-person collaboration. “It makes no difference whether the authors work in concert, or even whether they know each other; it is enough that they mean their contributions to be complementary in the sense that they are to be embodied in a single work to be performed as such.”<sup>242</sup> The “Melancholy Baby” case established that the co-authors need not intend specifically to merge their contributions with those of the other putative co-author; it is enough that they intend their contributions to be merged with

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<sup>236</sup> 140 F. 2d. 266 (2nd Cir. 1944).

<sup>237</sup> *Edward B. Marks*, 140 F.2d, 267; see also *Carter*, 64 Me., 463 (“If none be allowed to enjoy his legal interest without the consent of all, then one, by withholding his consent, might practically destroy the value of the whole use.”).

<sup>238</sup> *Shapiro, Bernstein & Co., Inc. v. Jerry Vogel Music Co., Inc.*, 161 F.2d 406 (2nd Cir. 1946).

<sup>239</sup> 161 F.2d at 409.

<sup>240</sup> *Shapiro, Bernstein & Co., Inc. v. Jerry Vogel Music Co.*, 221 F.2d 569 (2<sup>nd</sup> Cir. 1955).

<sup>241</sup> *Shapiro*, 221 F.2d, 570.

<sup>242</sup> *Edward B. Marks*, 140 F.2d, 267.

something else.<sup>243</sup> The “12<sup>th</sup> Street Rag” case moved the focus on the intent requirement from the author to the copyright owner.<sup>244</sup>

Thus, by the 1950s, the joint authorship notion had been expanded to encompass even asynchronous and initially unanticipated collaboration across time and space, yielding unified, holistic group ownership of the resulting combined works, which were not subject to the veto power of any single contributor. The rhetoric deployed in the cases suggests that this evolution was motivated by anxiety about the atomistic alternative of individual ownership of creative fragments.<sup>245</sup>

*Indivisibility:* In addition to these doctrinal developments regarding co-ownership of entire copyrights, there were developments in this era related to fragmentation of the various sticks in the copyright bundle. Specifically, in the early twentieth century, courts interpreted the 1909 Act to establish what came to be known as the “indivisibility” doctrine—which operated as a limit on the extent to which private ordering could result in fragmentation of the copyright bundle into its component sticks.

The indivisibility doctrine was derived from language in the 1909 Act referring to a single copyright “proprietor.” Cases interpreting the Act gave only this proprietor the right to sue for infringement. Partial “assignments” of individual rights (to publicly perform, but not reproduce copies of a play, for example) were therefore interpreted as mere licenses that did not give their recipients standing to sue.

The indivisibility rule aimed to avoid fragmentation of copyright ownership—fragmentation that would complicate the task of defending against lawsuits and the task of avoiding lawsuits by negotiating for permission to use copyrighted works upfront.<sup>246</sup>

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<sup>243</sup> So, where a publisher replaced the lyrics accompanying a musical composition with new lyrics not contemplated by the original composer, the result was nonetheless a work of joint authorship by the original composer and the new lyricist. *Shapiro*, 161 F.2d, 409-10.

<sup>244</sup> “We feel that the rule in these cases, as extended to the facts of the case at bar, should make the test the consent, by the one who holds the copyright on the product of the first author, at the time of the collaboration, to the collaboration of the second author. . . [W]hen the first author has assigned away all his rights which he can assign, we look to the intent of the assignee. . . . Since that intent was to merge the two contributions into a single work to be performed as a unit for the pleasure of the hearers we should consider the result ‘joint.’” *Shapiro*, 221 F.2d 569, 570.

<sup>245</sup> Cf. William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 478 (2003) (“We acknowledge a possible concern with joint ownership of copyrights; the more owners there are of a property, the greater will be the tracing and transaction costs. But these problems arise in the case of land and other physical property and are dealt with in a variety of ways, such as by forming a trust or corporation to own or operate the property, or by allowing partition. Problems of joint ownership of copyrights can be solved in similar ways. The counterpart to partition is the right of any joint owner of a copyright to license its use, subject to a duty to account for the profits to the other owners.”)

<sup>246</sup> Cf. Mark Lemley, *Dealing with Overlapping Copyrights on the Internet*, 22 U. DAYTON L. REV. 547, 569-72 (1997) (noting the difficulties associated with obtaining permission to use divided copyrights when one activity implicates several owners’ rights).

According to the Nimmer treatise's summary of the cases under the 1909 Act, "[t]he purpose of such indivisibility was to protect alleged infringers from the harassment of successive law suits."<sup>247</sup> As Abraham Kaminstein put it in his 1957 study on the issue, "[f]rom the viewpoint of *ease of tracing title* and purposes of suit, it is much simpler to require that only the author or his assignee can control the copyright."<sup>248</sup>

*Temporal Fragmentation:* In contrast to these holistic turn-of-the-century developments, Congress considered but rejected proposals in the lead up to the 1909 Act to eliminate temporal fragmentation in the form of the dual copyright term. Indeed, statements in the legislative history emphasize the value of temporal fragmentation of copyrights, using an oft-quoted example from Mark Twain's experience with *Innocents Abroad* to demonstrate the potential benefit to an author of retaining his renewal term:

Mr. Clemens told me that he sold the copyright for *Innocents Abroad* for a very small sum, and he got very little out of *The Innocents Abroad* until the twenty-eight year period expired, and then his contract did not cover the renewal period, and in the fourteen years of the renewal period he was able to get out of it all the profits.<sup>249</sup>

Similarly, the congressional reports accompanying the 1909 revision summarized:

It was urged before the committee that it would be better to have a single term without any right of renewal, and a term of life and fifty years was suggested. Your committee, after full consideration, decided that it was distinctly to the advantage of the author to preserve the renewal period. It not infrequently happens that the author sells his copyright outright to a publisher for a comparatively small sum. If the work proves to be a great success and lives beyond the term of twenty-eight years, your committee felt that it should be the exclusive right of the author to take the renewal term, and the law should be framed as is the existing law, so that he could not be deprived of that right.

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<sup>247</sup> 3 NIMMER, *supra* note \_\_\_, § 10.01[A].

<sup>248</sup> Abraham L. Kaminstein, *Divisibility of Copyrights*, Study No. 11, in Copyright Law Revision Studies Nos. 11-13, prepared for the Senate Committee on the Judiciary, 86th Cong., 2d Sess., 18-22 (1960) (emphasis added).

<sup>249</sup> Hearings Before Committees on Patents on Pending Bills, 60<sup>th</sup> Cong., 1<sup>st</sup> Sess. At 20 (1908).

Despite Congress's apparent enthusiasm for temporal fragmentation in this context, the Supreme Court ultimately endorsed the kind of temporal unification through private ordering that had been occurring ever since the Statute of Anne. In *Fred Fisher Music Co. v. M. Witmark & Sons*,<sup>250</sup> the Court held in 1943 that authors could assign their contingent renewal rights along with their initial terms (and insisted that this had been the rule in the United States since the 1790 Act). Critics of the opinion lamented that the Court had undermined the second-bite-at-the-apple policy Congress intended with the dual term of protection. But Justice Frankfurter's opinion stressed the value to both authors and publishers of allowing one big unified and holistic bite.<sup>251</sup>

*Tangible/Intangible Fragmentation:* A final example of doctrinal change resulting from anxiety about atomism around the turn of the twentieth century brings us all the way back to the issue of fragmentation of intangible copyrights from the right to possess tangible objects. This aspect of fragmentation was addressed in the 1909 Act's codification of the "first sale doctrine"—providing that the owner of an authorized copy of a copyrighted work may redistribute that copy notwithstanding the copyright owner's exclusive right of public distribution. The statutory provision codified the Supreme Court's 1908 decision in *Bobbs-Merrill & Co. v. Straus*,<sup>252</sup> in which the Court insisted that "one who has sold a copyrighted article, without restriction, has parted with all right to control the sale of it. The purchaser of a book, once sold by authority of the owner of the copyright, may sell it again, although he could not publish a new edition of it."<sup>253</sup>

As I have argued elsewhere, the first sale doctrine has the effect of limiting the complexity of the non-possessory rights attached to physical objects that embody copyrighted works.<sup>254</sup> It limits the degree of fragmentation between tangible and intangible rights by insisting that some rights are always consolidated with possession of the tangible object that embodies a copyrighted work.

In addition to the statutory first sale doctrine, the judicial "Pushman presumption" was a sort of super-first sale doctrine applicable to unpublished one-of-a-kind works of art, for which transfer of the singular physical object was presumed to transfer the common law copyright as well.<sup>255</sup> The default for these works was thus as simple as proto-copyright: the owner of the thing owned the copyright.

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<sup>250</sup> 318 U.S. 643, 155 (1943).

<sup>251</sup> *Fred Fisher*, 318 U.S., 657 ("If an author cannot make an effective assignment of his renewal, it may be worthless to him when he is most in need.")

<sup>252</sup> 210 U.S. 339 (1908).

<sup>253</sup> *Bobbs-Merrill*, 210 U.S., 350.

<sup>254</sup> Van Houweling, *The New Servitudes*, *supra* note \_\_\_, at 911-14.

<sup>255</sup> *Pushman v. New York Graphic Soc'y, Inc.*, 39 N.E.2d 249, 251 (N.Y. 1942).

#### 4. *Atomism Anxiety Across Multiple Dimensions*

U.S. copyright policy in the late-nineteenth and early-twentieth centuries was marked by an increasing realization of the potential difficulties associated with atomistic ownership of rapidly proliferating copyrights. In several instances, Congress and the courts anticipated these difficulties and responded with doctrinal choices aimed at consolidating and unifying copyright ownership. Private ordering further helped to consolidate control in the hands of institutions like ASCAP.

But this history also hints at some of the unfortunate consequences of holism. ASCAP's heavy-handed version of consolidation attracted the ire of antitrust authorities. As for the work-for-hire doctrine and the other developments that simplified and consolidated copyright ownership, they sacrificed authorial autonomy<sup>256</sup> in ways that can most clearly be examined by turning to the next chapter in copyright history: the Act of 1976.

#### E. The 1976 Act and the Age of the Author

The early twentieth century was marked by anxiety about the effects of atomism—resulting in doctrines, presumptions, and enforcement of private deals that favored consolidated ownership over broad distribution and unification over fragmentation of the sticks in the copyright bundle.

But the techniques deployed for combating atomism came at the expense of other important copyright values. Most notably, authors who valued autonomous control over their copyrights objected to anti-atomism mechanisms that advantaged publishers and other copyright intermediaries—objections that produced something of a backlash when the next comprehensive copyright revision finally came to fruition in 1976.<sup>257</sup> As Jane Ginsburg and Robert Gorman put it: “With the enactment of the 1976 Copyright Act, and its amendments, Congress has—at a number of important points—focused upon potential tensions in the interests of authors and publishers, and has for the most part placed its weight behind the former. Courts too, in the past quarter century, have been asked to rule upon conflicts between authors and publishers, and have tended to find in favor of authors.”<sup>258</sup> Lydia Loren similarly observes that “the emphasis the 1976 Copyright Act placed on the author of a

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<sup>256</sup> See generally Ginsburg, *The Concept of Authorship*, *supra* note \_\_\_\_, at 1089 (criticizing the work-for-hire doctrine's failure to protect individual human authors).

<sup>257</sup> On the negotiations and compromises that produced the 1976 Act, see generally Jessica D. Litman, *Copyright, Compromise, and Legislative History*, 72 CORNELL L. REV. 857 (1987).

<sup>258</sup> Robert A. Gorman & Jane C. Ginsburg, *Authors and Publishers: Adversaries or Collaborators in Copyright Law?*, in BENJAMIN KAPLAN ET AL., AN UNHURRIED VIEW OF COPYRIGHT REPUBLISHED (AND WITH CONTRIBUTIONS FROM FRIENDS), at GORGIN 1, 2 (2005).

copyrighted work. In many different provisions of the 1976 Act the author is given protection against certain rules from the 1909 Act that were seen as unfair. In particular, many of these rules related to the relationship between author and publisher/distributor.”<sup>259</sup> Similarly, the Supreme Court noted in *New York Times v. Tasini* (citing the views of two Registers of Copyright) that the 1976 Act evinced “intent to enhance the author’s position vis-à-vis the patron.”<sup>260</sup>

Evidence of this attentiveness to authorial autonomy, even at the expense of increased atomism, is apparent across multiple dimensions.

### **1. Proliferation: How Many Works Are Subject to Ownership**

The 1976 Act’s definition of copyrightable subject matter was broad and inclusive.<sup>261</sup> The Act extended protection to any original work of authorship fixed in a tangible medium of expression. Initially under the 1976 Act, works that were published had to comply with some (somewhat relaxed) statutory formalities in order to be protected. But a series of subsequent revisions designed to bring the United States into compliance with the Berne Convention, and to address complaints that strict formality requirements were traps for unwary authors, gradually eliminated all formalities as prerequisites for copyright protection. So in the era that begins with the enactment of the 1976 Act, it became dramatically easier for works to enter copyright.<sup>262</sup> It also became harder for copyrights to expire: the 1976 Act replaced the dual term of protection with a unitary term that lasted in most cases for the life of the author plus 50 years.

### **2. Distribution: How Many People Own Rights?**

During the debates and studies leading up to the 1976 Act, the consolidating work-for-hire doctrine was criticized as “philosophically indefensible, and undesirable from the viewpoint of

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<sup>259</sup> Lydia Pallas Loren, *Untangling the Web of Music Copyright*, 53 CASE W. RES. L. REV. 673, 674 (2003); see also *id.* at n. 13 (citing *Tasini*, the termination of transfer provision, and the elimination of formalities as “evidenc[ing] a preference for authors’ rights”).

<sup>260</sup> 533 U.S. 483, 495 n. 3 (quoting Letter from M. Peters to Rep. McGovern, reprinted in 147 Cong. Rec. E182 (Feb. 14, 2001) (quoting Ringer, *First Thoughts on the Copyright Act of 1976*, 22 N.Y.L.S.L.REV. 477, 490 (1977)), observing that the 1976 Act represented “a break with a two-hundred-year-old tradition that has identified copyright more closely with the publisher than with the author.”).

<sup>261</sup> See generally Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_\_, at 331 (tracing the expansion of the subject matter into the contemporary period).

<sup>262</sup> See generally Sprigman, *supra* note \_\_\_\_, UNITED STATES COPYRIGHT OFFICE, REGISTER OF COPYRIGHTS, REPORT ON ORPHAN WORKS 15 (2006); R. Anthony Reese, *Innocent Infringement in U.S. Copyright Law: A History*, 30 COLUM. J.L. & ARTS 133 175-78 (2007). Cf. Sprigman, *supra* note \_\_\_\_, at 544 (explaining Berne Convention’s proscription of mandatory formalities as “a rational response to the difficulty of complying (and maintaining compliance) with differently administered formalities that may have been, absent the Convention, imposed in dozens of national systems, some with registries, some without, and one of which shares information.”).

public policy. It leads to unnecessary concentration of intellectual works to the detriment of creative people and of the public.”<sup>263</sup> The new act added statutory text that courts understood as narrowing the controversial doctrine (at least as compared to some broad interpretations of the 1909 Act<sup>264</sup>), such that ownership of fewer works was consolidated in the hands of publishers, record-companies, and other parties who specially commissioned copyrightable works.<sup>265</sup>

In addition, the 1976 Act introduced a written instrument requirement for transfers of copyrights,<sup>266</sup> placing a new formal requirement on this mechanism for consolidating ownership through private ordering.

### 3. *Fragmentation: Among How Many People Is Each Work Divided?*

*Concurrent Co-Ownership and Joint Authorship:* The rules of joint authorship that emerged in the early twentieth century served to alleviate the fragmentation that might otherwise result from collaboration. As explained above, joint authors are the initial joint owners of the copyright in their work. Each may exploit the entire joint work (not merely their individual contribution to it), subject only to a duty to account to co-owners for any profits. Thus although there may be many separate owners, the rights to exploit are holistic in that rights to the entire work may be exercised without individual authorization from each owner.<sup>267</sup>

The 1976 Act and case law interpreting it narrowed the definition of joint authorship in ways that made the doctrine a less powerful anti-atomism tool. In particular, joint authorship status under the definition added by the 1976 Act is triggered in part by the authors’ “intention that their contributions be merged into inseparable or interdependent parts of a unitary whole.”<sup>268</sup> In a refutation of the holding in the “12 Street Rag” case, the legislative history indicates that the requisite intention should be measured at the time the authors

<sup>263</sup> Borge Varmer, *Works Made for Hire and on Commission*, Study No. 13, in Copyright Law Revision Studies Nos. 11-13, prepared for the Senate Judiciary Committee, 86th Congress, 2d Sess., at 150 (1958) (statement of John Schulman).

<sup>264</sup> See generally Jane Ginsburg, *Conflicts of Copyright Ownership Between Authors and Owners of Original Artworks*, 17 COLUM.-VLA J.L. & ARTS 395, 404 (1993).

<sup>265</sup> See generally *Community for Creative Non-Violence v. Reid*, 846 F.2d 1485, 1497 n.17 (D.C. Cir. 1988) *affid.*, 109 S. Ct. 2166 (1989) (referring to “[t]he substantial cutback of the work for hire doctrine under the 1976 Act”); Litman, *supra* note \_\_\_, at 889-91 (describing compromises that produced the modified work-for-hire provision in the 1976 Act).

<sup>266</sup> 17 U.S.C. 204.

<sup>267</sup> See generally 1 NIMMER, *supra* note \_\_\_, at § 6.10 (“Because one joint owner cannot be liable for copyright infringement to another joint owner, for the reason that one cannot infringe his own copyright, it follows that a joint owner may, without obtaining the consent of the other joint owners, either exploit the work himself, or grant a nonexclusive license to third parties.”); *id.* at 6.12 (“[T]he prevailing rule is that a joint owner is under a duty to account to the other joint owners of the work for a ratable share of the profits realized from his use of the work.”).

<sup>268</sup> 17 U.S.C. 101.

make their contributions. “[T]he touchstone here is the intention at the time the writing is done.”<sup>269</sup> As for the substance of the intent, some courts have read the 1976 Act to require not merely the intent to merge the contributions, but the intent that the collaborators have the status of joint authors.<sup>270</sup> In addition to these questions of the timing and substance of the contributors’ intent, some courts have required putative co-authors to have both made a copyrightable contribution to the work<sup>271</sup> and to have exercised control over the creative enterprise as a whole, serving as its “superintendant” or “mastermind.”<sup>272</sup>

Of course, if collaborators who were denied joint author status under these holdings had no ownership status at all, then the result would be holistic. Despite the multiplicity of creative contributors, the denial of owner status to those who did not qualify as “masterminds” sharing the requisite intent might result in simple and unified copyright (albeit with costs in terms of autonomy and fairness). But, in fact, if a minor contributor of a copyrightable element of a work is denied the status of joint author of the entire work, he is nonetheless the author (and the initial owner) of his fragmentary contribution.<sup>273</sup> A larger work that incorporates his contribution may be considered a derivative work, in which case it cannot be exploited (outside the bounds of fair use or some other exception) without permission from the individual owner,<sup>274</sup> since the copyright in a derivative work “extends only to the material contributed by the authors of such work, as distinguished from the preexisting material employed in the work, and does not imply any

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<sup>269</sup> H.R. Rep., 94-1476, at. 120; *see also* 1 NIMMER, *supra* note \_\_\_, at § 6.03; Margaret Chon, *New Wine Bursting from Old Bottles: Collaborative Internet Art, Joint Works, and Entrepreneurship*, 75 OR. L. REV. 257, 269 (1996) (“[C]ourts have construed intent narrowly to mean that all putative joint authors must intent to make a joint work at the time of the creation of that work.”).

<sup>270</sup> *See, e.g.*, *Aalmuhammed v. Lee*, 202 F.3d 1227, 1234 (9<sup>th</sup> Cir. 2000) (“[P]utative coauthors make objective manifestations of a shared intent to be coauthors.”); *Thomson v. Larson*, 147 F.3d 195, 202-24 (2<sup>nd</sup> Cir. 1998); *Childress v. Taylor*, 945 F.2d 500 (2d. Cir. 1991).

<sup>271</sup> *E.g. Childress*, 945 F.2d, .507. *But see* 1 NIMMER, *supra* note \_\_\_, § 6.07[A][3]; *Gaiman v. McFarlane*, 360 F.3d 644 (7<sup>th</sup> Cir. 2004) (“The decisions that say, rightly in the generality of cases, that each contributor to a joint work must make a contribution that if it stood alone would be copyrightable weren’t thinking of the case in which it *couldn’t* stand alone because of the nature of the particular creative process that had produced it.”).

<sup>272</sup> *E.g. Aalmuhammad*, 202 F.3d, 1234.

<sup>273</sup> F. Jay Dougherty, *Not a Spike Lee Joint? Issues in the Authorship of Motion Pictures Under U.S. Copyright Law*, 49 UCLA L. REV. 225, 262 (“Hence, in the absence of a work-for-hire arrangement or some other express or implied transfer of rights, under which a contributor provides copyrightable material but is found not to be a coauthor due to lack of intent, the author who incorporates that material in her work is potentially a copyright infringer. If it is difficult to remove the material, the author is at risk that the entire work may be enjoined.”).

<sup>274</sup> *See generally* *Stewart v. Abend*, 495 U.S. 207, 223 (1990) (“The aspects of a derivative work added by the derivative author are that author’s property, but the element drawn from the pre-existing work remains on grant from the owner of the pre-existing work. . . . So long as the pre-existing work remains out of the public domain, its use is infringing if one who employs the work does not have a valid license or assignment for use of the pre-existing work.”).

exclusive right in the preexisting material.”<sup>275</sup> Alternatively, the larger work might be considered a “collective work”—defined by the 1976 Act as “a work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole.”<sup>276</sup> Here too, the author of the individual contribution owns that fragment, as “[c]opyright in each separate contribution to a collective work is distinct from copyright in the collective work as a whole, and vests initially in the author of the contribution.”<sup>277</sup> There is a limited nod to holism in this collective work provision, which goes on to provide a statutory presumption that a collective work copyright owner may release a “revision” of the collective work and a “later collective work in the same series” without seeking additional permission from the contributors.<sup>278</sup> But the Supreme Court in *New York Times v. Tasini* refused to give a broad reading to “revision,” emphasizing the authorial autonomy interests of contributors to collective works despite complaints from the *New York Times* and other collaborative work publishers about the difficulty of assembly and renegotiating the rights to fragmented copyrights.<sup>279</sup>

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<sup>275</sup> 17 U.S.C. § 103.

<sup>276</sup> 17 U.S.C. § 101; *see generally* Dougherty, *supra* note \_\_\_, at 265 (“Under the statutory language, if at the time of creation the authors intend to merge their contribution into either inseparable or interdependent parts of a unitary whole, then the resulting work is joint. Otherwise, the resulting work will be derivative (if the preexisting works are transformed) or collective (if the preexisting works are not transformed, but only selected, coordinated, or arranged in an original way). Alternatively, if there is no intent to merge, no transformation, and no original selection, coordination, or arrangement, the authors own separate copyrights in their contributions.”); *id.*, at 307 (“Although under Aalmuhammed, creators of motion pictures would rarely be considered coauthors of a joint work, they will be authors of their respective contributions.”); *id.*, at 320 (“When a copyrightable contribution is not a work made for hire, the rights in the works may be fragmented—the contributor owns a copyright in material that is to be incorporated in a motion picture otherwise owned by the producer.”); Rochelle Cooper Dreyfuss, *Collaborative Research: Conflicts on Authorship, Ownership, and Accountability*, 53 VAND. L. REV. 1161, 1205-06 (“Although the outcome of this case may seem reasonable, the opinion is worrisome in many ways. Most obviously, it failed to settle the status of the Thomson contribution. Does the Larson copyright encompass this work? If so, on what theory? (No one had claimed that the work was for hire). If the copyright is Larson’s, does Thomson have an implied license to use her own material? Alternatively, is it Thomson who holds the copyright in her materials and Larson who has the license to use it? If the case had not settled, would the Thomson contributions to Rent now be beyond the use of everyone? Given the rich resources that can be produced by collaborative efforts, there is a need for more direction on how the contributions of non-statutory authors can be utilized.”).

<sup>277</sup> “In the absence of an express transfer of the copyright or of any rights under it, the owner of copyright in the collective work is presumed to have acquired only the privilege of reproducing and distributing the contribution as part of that particular collective work, any revision of that collective work, and any later collective work in the same series.” 17 U.S.C. § 201.

<sup>278</sup> 17 U.S.C. § 201.

<sup>279</sup> *New York Times v. Tasini*, 533 U.S. 483, 504-06 (2001). Although the Court upheld the freelance authors’ copyright interests despite these arguments, it did suggest that the difficulty of negotiating over the rights could be avoided at the remedy stage. *Tasini*, 533 U.S. 505 (“Notwithstanding the dire predictions from some quarters. . . it

*Indivisibility:* Recall how the indivisibility doctrine imposed a limit on the extent to which the individual rights in the copyright bundle could be divided among different concurrent owners. As continued development of various new creative technologies increased the value of individual sticks in the copyright bundle, the indivisibility doctrine was criticized as a unjustifiable restraint on commerce that “produced technical pitfalls for both buyers and sellers.”<sup>280</sup>

The 1976 Act eliminated the doctrine, providing expressly for just the fragmentation that the 1909 Act was interpreted to forbid. Section 201 now provides that “[a]ny of the exclusive rights comprised in a copyright, including any subdivision of any of the rights specified by section 106, may be transferred as provided . . . and owned separately.”<sup>281</sup>

*Temporal fragmentation:* Until the 1976 Act, U.S. copyright law maintained the dual term of protection that it had inherited from the Statute of Anne (with expanding duration for each of the terms). This dual term lead to the potential for temporal fragmentation if authors assigned only their initial terms. But, as discussed above, in reality both terms were often signed away at the same time. These assignment practices mitigated the transaction and information costs that might otherwise arise if, for example, a publisher had to renegotiate in order to continue to publish a work beyond its initial term of protection. But authors objected that allowing immediate assignment of both terms defeated the statutory purpose of offering authors a “second bite” at the negotiation apple.

The 1976 Act eliminated the dual-term system but re-injected a different mechanism for temporal fragmentation at the service of authors’ second bites.<sup>282</sup> It created a termination of transfer right that

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hardly follows from today's decision that an injunction against the inclusion of these Articles in the Databases (much less all freelance articles in any databases) must issue.”). The Court has made similar suggestions elsewhere. *See, e.g.,* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 578, n. 10 (1994) (“[T]he goals of copyright law are . . . not always best served by automatically granting injunctive relief”). *Cf. eBay, Inc. v. MercExchange, L.L.C.* 547 U.S. 388, 392-93 (2006) (“[T]his Court has consistently rejected invitations to replace traditional equitable considerations with a rule that an injunction automatically follows a determination that a copyright has been infringed.”).

The *Tasini* Court also suggested the possibility of holistic private ordering: “The parties (Authors and Publishers) may enter into an agreement allowing continued electronic reproduction of the Authors' works; they, and if necessary the courts and Congress, may draw on numerous models for distributing copyrighted works and remunerating authors for their distribution. *See, e.g.,* 17 U.S.C. § 118(b); *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1, 4-6, 10-12, 99 S.Ct. 1551, 60 L.Ed.2d 1 (1979) (recounting history of blanket music licensing regimes and consent decrees governing their operation).” *Tasini*, 533 U.S., 505.

<sup>280</sup> 3 NIMMER, *supra* note \_\_\_, at § 10.01.

<sup>281</sup> 17 U.S.C. § 201(d)(2).

<sup>282</sup> *See generally* Litman, *supra* note \_\_\_, at 891-93 (describing the negotiations that produced the new provision).

allows authors (or their statutory heirs) to reclaim transferred or licensed copyrights decades later.<sup>283</sup> The right is not transferable and persists “notwithstanding any agreement to the contrary.”<sup>284</sup> Because the full fragmenting effects of what has been referred to as the “termination-of-transfers time bomb”<sup>285</sup> are only now starting to emerge, I will return to this topic below in my discussion of atomism in the contemporary copyright environment.

*Fragmented derivative works.* Temporal fragmentation interacts in complicated ways with fragmented ownership of the elements of derivative works. As we have seen, under early interpretations of the 1790 Act, the copyright holder’s exclusive rights did not extend to translations, abridgements, and other adaptations of works that we would not consider derivative works. Not only was an author of such an adaptation generally not considered an infringer, he was a copyright holder in his own right. Once copyright holders were granted the right to prepare derivative works (which was not referred to in those terms until the 1976 Act, but was largely in place by 1909), the question arose as to ownership of derivative works. Section 7 of the 1909 Act provided that:

Compilations or abridgments, adaptations, arrangements, dramatizations, translations, or other versions of works in the public domain or of copyrighted works when produced with the consent of the proprietor of the copyright in such works . . . shall be regarded as new works subject to copyright under the provisions of this title; but the publication of any such new works shall not affect the force or validity of any subsisting copyright upon the matter employed or any part thereof, or be construed to imply an exclusive right to such use of the original works, or to secure or extend copyright in such original works.<sup>286</sup>

Thus, creators of derivative works were entitled under the 1909 Act to copyrights in their derivatives if they were authorized or based upon public domain works. For these works, the result under the 1909 Act was somewhat similar to the result under cases like *Stowe*<sup>287</sup> before the advent of the exclusive right to prepare derivative works—in that the second author was eligible to become a copyright holder. There was difference, however, in that downstream uses of a derivative work that were beyond the authorization of the original copyright owner were now subject to that owner’s legal objection. So while the copyright in the derivative work was truly independent under the

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<sup>283</sup> 17 U.S.C. § 203 (for post-1978 transfers); 17 U.S.C. 304(c) (pre-1978).

<sup>284</sup> 17 U.S.C. § 203(a)(5); 17 U.S.C. § 304(c)(5).

<sup>285</sup> David Nimmer & Peter S. Menell, *Sound Recordings, Works for Hire, and the Termination-of-Transfers Time Bomb*, 49 J. COPYRIGHT SOC’Y USA 387 (2001).

<sup>286</sup> 1909 Act, *supra* note \_\_\_\_.

<sup>287</sup> See *supra* note \_\_\_\_ and accompanying text.

approach in *Stowe*, under the 1909 Act a derivative work was potentially subject to the control of multiple owners.

The doctrinal manifestations of anxiety about this type of fragmented ownership of derivative works did not fully emerge until after the enactment (but before the effective date) of the 1976 Act, in several cases in which the courts faced the interesting question of how to deal with derivative works that had been created with the authorization of the author for both the initial and renewal terms, when the author died before the vesting of the renewal term and his statutory heirs therefore claimed it reverted to them. In *Rohauer v. Killiam Shows, Inc.*,<sup>288</sup> the Second Circuit adopted for such circumstances what came to be known as the “new copyright” or “derivative work independence”<sup>289</sup> theory, based on which such a licensee could continue to exploit the derivative work without limitation going forward, explaining that “we do not believe . . . that the vesting of renewed copyright in the underlying work in a statutory successor deprives the proprietor of the derivative copyright of a right, stemming from the . . . ‘consent’ of the original proprietor of the underlying work, to use so much of the underlying copyrighted work as already has been embodied in the copyrighted derivative work.”<sup>290</sup> In so holding, the court expressed the fear that the contrary rule would leave a derivative work author in danger of losing the value of her investment in the derivative due to familiar problems springing from atomistic copyright: the difficulty of identifying and negotiating with the contingent owners of the temporally fragmented renewal term. “The purchaser of derivative rights has no truly effective way to protect himself against the eventuality of the author’s death before the renewal period since there is no way of telling who will be the surviving widow, children or next of kin or the executor until that date arrives.”<sup>291</sup>

Lydia Loren elaborates on how the derivative works independence theory also mitigated atomism-related problems for downstream users, who might face high information and transaction costs if use of a derivative work required permission from the owners of the fragments of both the original work embedded in it and the derivative aspects:

Derivative work independence provides that the creation of the derivative work results in a new and independent property right—the copyright in the derivative work. That new property right is independent from any pre-existing works that were incorporated into the derivative work. In order to be able to reproduce and distribute copies of the derivative work or perform the derivative work, the creator of the derivative work

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<sup>288</sup> 551 F. 2d 484 (2d Cir. 1977), *cert. denied*, 431 U.S. 949 (1977).

<sup>289</sup> See generally Loren, *supra* note \_\_\_\_, at 706; Dougherty, *supra* note \_\_\_\_.

<sup>290</sup> *Rohauer*, 551 F.2d, 492.

<sup>291</sup> *Rohauer*, 551 F.2d, 493.

would only require permission to use the underlying work to create the derivative work; the derivative work creator would not also need to obtain the right to reproduce, distribute, and display that underlying work as incorporated in the derivative work. More importantly, . . . the downstream user of a derivative work would not be required to obtain permission from the various copyright owners in the underlying works that may be incorporated in the derivative work. Obtaining permission from the derivative work copyright owner is all that would be required.<sup>292</sup>

But the Supreme Court in 1991 rejected this strong anti-atomism position, holding in *Stewart v. Abend* that a license to prepare a derivative work does not entitle the licensee to continue to exploit the derivative work after the renewal term (for a work still governed by the pre-1976 dual term system) reverts to an author or his statutory heirs. The rights under the license are subject to disruption due to the temporal fragmentation of copyright ownership. The Court thus rejected the Second Circuit's efforts to interpret the renewal provision so as to avoid the adverse consequences of atomism. The Supreme Court's views on the matter were influenced by Congress's intervening reassertion of the importance of temporal fragmentation with the termination of transfer provisions of the 1976 Act.<sup>293</sup>

The 1976 provisions did offer some prospective relief for derivative work copyright owners in this difficult situation. It expressly provided that “[a] derivative work prepared under authority of the grant before its termination may continue to be utilized under the terms of the grant after its termination, but this privilege does not extend to the preparation after the termination of other derivative works based upon the copyrighted work covered by the terminated grant.”<sup>294</sup>

There is another way in which the 1976 Act served authorial autonomy but prevented some types of fragmentation. The Act's derivative work provision made it even clearer than the 1909 Act had that the creator of an unauthorized derivative work would not be an owner of fragments that are intertwined with the copyrighted work. The Act included current section 103, which provides that “protection for a work employing preexisting material in which copyright subsists does not extend to any part of the work in which such material has been used unlawfully.”<sup>295</sup> This controversial provision ensures that

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<sup>292</sup> Loren, *supra* note \_\_\_, at 706; *see also* Dougherty, *supra* note \_\_\_.

<sup>293</sup> *See, e.g.*, *Stewart v. Abend*, 495 U.S. 207, 226 (1990) (“[I]f the 1976 Act's termination provisions provide any guidance at all in this case, they tilt against petitioner's theory. The plain language of the termination provision itself indicates that Congress assumed that the owner of the pre-existing work possessed the right to sue for infringement even after incorporation of the pre-existing work in the derivative work.”).

<sup>294</sup> 17 U.S.C. §§ 203(b)(1), 304(c)(6)(A).

<sup>295</sup> 17 U.S.C. § 103(a). *See generally* Mark Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1021-23 (1997) (“The effect of this

the copyright holder in the original work will remain the sole proprietor of both the work and derivatives that incorporate it,<sup>296</sup> unless the owner himself chooses to complicate ownership by authorizing a derivative work (triggering default ownership rules that echo those of the 1909 Act).<sup>297</sup> The provision has been given a particularly unifying interpretation in cases like *Anderson v. Stallone*, in which a district court held that no part of an unlawfully prepared derivative work is entitled to copyright protection (rejecting the argument that “part of the work,” in the language of the Act, did not use the preexisting copyrighted material).<sup>298</sup> This result ensures that ownership of a derivative work will not be fragmented between an original and subsequent author without the original copyright owner’s authorization, a requirement likely to inhibit fragmentation.<sup>299</sup>

Unified control over preexisting and derivative works in the hands of the original copyright holder comes at a cost, however, in terms of other copyright values. Most notably, this concentration threatens to undermine beneficial competition in the market for improvements.<sup>300</sup> What is more, the default of unitary ownership is easily modified through private ordering. Indeed, where adaptation is authorized, fragmented ownership of derivative works is the default rule under 103 and its interpretation in *Stewart*. The aspects of the preexisting work that are incorporated into the derivative work are subject to one copyright; the material added by the author of the derivative work is subject to another (if it satisfies copyright’s originality requirement<sup>301</sup>). Unless the first copyright owner has authorized the derivative work owner to sublicense their rights, a downstream user has to negotiate with two or more fragmentary owners in order to exploit the entire derivative work.

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rule is to allow the original copyright owner to capture the value of even significant improvements made by others.”).

<sup>296</sup> That is, there will be no other owner of either the original or derivatives. Whether the original owner in fact owns the derivative aspects, or whether they have no owner, is an interesting question not clearly answered by the statutory text.

<sup>297</sup> 17 U.S.C. § 103(b) (“The copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material. The copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material.”).

<sup>298</sup> No. 87-0592, 1989 WL 206431 (C.D. Cal. Apr. 25, 1989).

<sup>299</sup> Cf. Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 276 (1977) (“No one is likely to make significant investments searching for ways to increase the commercial value of a patent unless he has made previous arrangements with the owner of the patent. This puts the patent owner in a position to coordinate the search for technological and market enhancement of the patent’s value so that duplicative investments are not made and so that information is exchanged among the searchers.”).

<sup>300</sup> See generally Lemley, *The Economics of Improvement*, *supra* note \_\_; Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29 (1991).

<sup>301</sup> Cf. *Gracen v. Bradford Exchange*, 698 F.2d 300 (1983) (“[E]specially as applied to derivative works, the concept of originality in copyright law has as one would expect a legal rather than aesthetic function—to prevent overlapping claims.”).

#### **4. *Atomism Across Multiple Dimensions***

The 1976 Act and subsequent judicial developments can be understood as a backlash against anti-atomism techniques that threatened author autonomy by limiting proliferation of copyrights, by consolidating copyright ownership and facilitating consolidating private ordering, and by unifying ownership of the multiple sticks in the copyright bundle. Perhaps most dramatically, the amendments to the formality requirements designed to bring the United States into compliance with the Berne Convention led to massive proliferation of copyrights. The atomizing effect of this proliferation was magnified by the elimination or weakening of several of the doctrines that had limited atomism or ameliorated its effects—especially those put into place in the previous era of anxiety about atomism.

These changes do not appear to have resulted from a decrease in anxiety about atomism, but rather from countervailing concerns with authors' interests in maintaining the autonomous control that comes from automatic copyright protection and distributed individual ownership of as many fragments as an author wishes to retain. This interest in authorial autonomy looms even larger today, as I discuss below. But it is matched by intensification of the atomizing trends of the previous era, with potentially unjustifiable costs for the copyright system and for individual authors themselves.

### **III. Atomism and Autonomy in the Internet Age**

In this Part, I document how copyright in the contemporary environment is atomistic on every dimension, due to the current state of copyright law and the technological, business, and creative environment in which it operates. I observe that the tools that have in the past been deployed to limit the harmful effects of atomism may be ill-equipped to address today's extreme version. Either the existing tools simply do not work, or else they pose threats to authorial autonomy, competition, and distributive fairness that are especially troubling in an era in which technology promises to enhance autonomy and diversify creative opportunities.

#### **A. Proliferation**

In addition to further expansion in the coverage and duration of copyright,<sup>302</sup> developments since 1976 have made it feasible, for the first time, for copyright ownership to proliferate in lock-step with expansions in creativity. In previous eras, some creative works went

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<sup>302</sup> See generally Menell, *Envisioning Copyright Law's Digital Future*, *supra* note \_\_\_, at 162 (documenting the “tremendous expansion of copyright and related protections during the past decade and largely favorable judicial decisions in enforcement actions”).

immediately into the public domain because their authors either intentionally or inadvertently failed to comply with the formality requirements that were prerequisites for copyright protection. Now those formality requirements have all been removed and copyright acquisition is automatic. This is a dramatic change in itself. But its impact in the current creative environment is extraordinary. Combine the ease of copyright acquisition with the technological tools that allow everyone with a computer and Internet access to be an author and publisher, and now everyone is a potential copyright holder—resulting in massive proliferation of copyrights. Ironically, although copyright registration is no longer required, many of these new technologically-empowered copyright holders are seeking to register their copyrights in numbers that are overwhelming the Copyright Office and creating an unprecedented backlog. As the *Washington Post* recently reported, “[t]he envelopes just keep coming, threatening to flood the operation.” And “[t]he slowdown is frustrating hundreds of thousands of little-known people with big dreams.”<sup>303</sup>

In addition to the growth of copyrightable works and the ease of acquiring copyright protection, copyrights now take even longer to expire than in the past. The Sonny Bono Copyright Term Extension Act of 1998 added 20 years to the term of copyright protection—now the life of the author plus 70 years.<sup>304</sup>

In sum, works are flooding into the copyright system and only slowly trickling out—yielding a creative environment that is crowded with works to which the restrictions imposed by copyright apply whether their authors have gone to the trouble of requesting protection or not.

## B. Distribution

In previous eras the atomism that might otherwise result from the initial allocation of copyrights to authors was limited by private ordering. As we have seen, the widespread practice of voluntary assignment of authorial copyrights has, since the Statute of Anne, served to limit the consequences of initially distributed copyright ownership.<sup>305</sup> But technology is allowing many creators to disseminate their work themselves, thus making it more feasible for authors to retain their own copyrights instead of assigning them to

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<sup>303</sup> Lyndsey Layton, © 2009? *Wishful Thinking, Perhaps, as Backlog Mounts*, THE WASHINGTON POST (May 19, 2009), available at [http://www.washingtonpost.com/wp-dyn/content/article/2009/05/18/AR2009051803171\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2009/05/18/AR2009051803171_pf.html).

<sup>304</sup> 17 U.S.C. § 302(a); see also *id.* § 302(b) (“In the case of a joint work prepared by two or more authors who did not work for hire, the copyright endures for a term consisting of the life of the last surviving author and 70 years after such last surviving author’s death.”); § 302(c) (“In the case of an anonymous work, a pseudonymous work, or a work made for hire, the copyright endures for a term of 95 years from the year of its first publication, or a term of 120 years from the year of its creation, whichever expires first.”).

<sup>305</sup> See discussion *supra* at note \_\_\_\_ and accompanying text.

consolidating corporate publishers.<sup>306</sup> Scholars are increasingly publishing their own works in open access repositories.<sup>307</sup> Independent musicians are managing their own copyrights and operating without record companies.<sup>308</sup> Organizations like the Free Software Foundation and Creative Commons are encouraging individual authors to manage their copyrights in innovative ways. A project based at Columbia Law School urges authors to “Keep Your Copyrights.”<sup>309</sup>

As we have seen, there was anxiety in the late nineteenth century about the difficulties posed by such broadly distributed copyright ownership—anxiety that influenced the development of the work-for-hire doctrine. But this new wave of distributed creativity is happening largely outside of the employment context and the work-for-hire solution.<sup>310</sup>

As for consolidation through private ordering: one challenge in the Internet age is that many of the individuals who engage in the serendipitous creativity that digital technology enables may not see themselves as repeat players with the stakes in solving information and transaction costs problems that the cozy club of stationers or the founders of ASCAP had. In his study of ASCAP and other “intellectual property exchange institutions,” Robert Merges predicts that “[o]nly repeated transactions among right holders will give rise to the private institutions discussed in this Article. One shot or sporadic interactions do not justify investments in exchange institutions.”<sup>311</sup>

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<sup>306</sup> *But cf.* Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_, at 327 (noting late-twentieth-century concentration of market power in some creative sectors and observing that “[c]onsolidation in the copyright industries . . . impedes the efforts of free-lance writers to negotiate fair contracts with major media firms who want writers to assign all rights in their works for a one-time payment”).

<sup>307</sup> *See, e.g.*, Harvard University Library Office for Scholarly Communication, Open-Access Policy in FAS, <http://hul.harvard.edu/osc/overview.html>.

<sup>308</sup> *See, e.g.*, Jon Pareles, *Frustration and Fury: Take It. It's Free*, N.Y. TIMES, June 8, 2008 (“[Trent Reznor] has joined the superstar exodus from major labels.”); Lars Brandle, *Radiohead in Direct-Licensing Deal for New CD*, BILLBOARD, Oct. 9, 2007, available at [http://www.billboard.com/bbcom/news/article\\_display.jsp?vnu\\_content\\_id=1003655864](http://www.billboard.com/bbcom/news/article_display.jsp?vnu_content_id=1003655864); Eliot Van Buskirk, *Reznor v. Radiohead: Innovation Smackdown*, WIRED, Mar. 27, 2008, available at [http://www.wired.com/entertainment/music/news/2008/03/reznor\\_radiohead](http://www.wired.com/entertainment/music/news/2008/03/reznor_radiohead) (“Radiohead and Nine Inch Nails have been taking turns giving the music industry the finger. The British band made headlines last October for releasing *In Rainbows* without the support (read: control) of a record label, and Trent Reznor’s group followed suit with last month’s *Ghosts I-IV*.”). *See generally* Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, *supra* note \_\_\_, at 189-90 (documenting other examples of musicians exercising independence from record labels).

<sup>309</sup> *See* Keep Your Copyrights, <http://keepyourcopyrights.org/about/> (“Copyright was designed to serve artists and creators, but if you give everything up, that idea can just become lip service. Worse, if you give away too many rights, the business to whom you gave up your rights can use your copyrights against you to hinder your later efforts to create or to get paid.”).

<sup>310</sup> *Cf.* Dreyfuss, *supra* note \_\_\_, at 1203-04 (arguing that the work-for-hire solution is inappropriate where no one entity has the knowledge necessary to maximize the creative value of a collaborative project).

<sup>311</sup> Merges, *Contracting Into Liability Rules*, *supra* note \_\_\_, at 1319; *see also id.*, at 1392 (“Intellectual property rights, consummate property rule entitlements, are often fragmented among many firms in an industry. Marketable products require many IPR

To put it another way, today's individual technology-empowered creators may be less likely than more institutionalized repeat-players to internalize the costs that retaining atomistic copyrights imposes on the copyright environment as a whole.<sup>312</sup>

There is nonetheless some contemporary evidence of consolidation through private ordering.<sup>313</sup> Some Internet-age intermediaries—including the owners of online platforms that host much of today's "user-generated content"—do attempt to acquire ownership of individually-authored works through terms of service that purport to effect consolidating copyright assignments or licenses. But they often encounter objections echoing those that motivated the pro-author shifts in the 1976 Act. Journalist Nicholas Carr is one of several observers who have characterized (and decried) these practices as "digital sharecropping": "In a twist on the old agricultural practice of sharecropping, the site owners provide the digital real estate and tools, let the members do all the work, and then harvest the economic reward."<sup>314</sup> He elaborates: "By putting the means of production into the hands of the masses but withholding from those masses any ownership over the products of their communal work, the World Wide Computer provides an incredibly efficient mechanism for harvesting the economic value of the labor provided by the very many and concentrating it in the hands of the very few."<sup>315</sup>

The social networking platform Facebook recently encountered this type of resistance to its efforts to exercise consolidating control over the contributions of its millions of subscribers. In early 2009, Facebook attempted to modify its terms of use to ensure that it would continue to have the right (in the form of a perpetual non-exclusive

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inputs and therefore many IPR transactions. Because IPRs are property rule entitlements, using them requires separate bargains with individual right holder. Where firms are involved in such transactions repeatedly, institutions for regularized IPR exchange tend to emerge. . . . [T]hey grow out of repeated dealings by knowledgeable industry insiders . . . ."); *Merges, Intellectual Property Rights and the New Institutional Economics*, *supra* note \_\_\_, at 1866 (raising the question "[u]nder what conditions will voluntary transactional institutions take shape?" and observing that "[a]s yet, there is no definitive answer").

<sup>312</sup> Cf. Merrill & Smith *Optimal Standardization*, *supra* note \_\_\_.

<sup>313</sup> And there are ASCAP-like institutions for some new types of works, as Merges observed even before the Internet became ubiquitous. See Merges, *Contracting Into Liability Rules*, *supra* note \_\_\_, at 1380 (observing that "[t]he various multimedia institutions now beginning to flourish provide contemporary evidence that in a property rights world, high transaction costs push parties towards private [intellectual property rights] exchange institutions").

<sup>314</sup> CARR, *supra* note \_\_\_, at 137. Cf. Billy Bragg, *The Royalty Scam*, THE NEW YORK TIMES (Mar. 22, 2008), available at <http://www.nytimes.com/2008/03/22/opinion/22bragg.html> (arguing that social networking site Bebo.com should have paid royalties to the artists who posted their music there when its founders sold the site to AOL for \$850 million).

<sup>315</sup> CARR, *supra* note \_\_\_, at 142; see also *id.* ("[B]usinesses are using the masses of Internet gift-givers as a global pool of cut-rate labor."); *id.* at 147 ("In the YouTube economy, everyone is free to play, but only a few reap the rewards.") Cf. Merges, *The Concept of Property in the Digital Era*, *supra* note \_\_\_, at 1249-50 (observing but not endorsing negative attitudes "about the large entities that amalgamate huge numbers of IP-protected works).

license) to exploit former members' contributions.<sup>316</sup> It withdrew the change<sup>317</sup> in the face of user protests charging, for example, that "Facebook owns you."<sup>318</sup> Although network effects tend to give popular platforms like Facebook some market advantages, Internet users do have other options for affordably disseminating their works of authorship—making heavy-handed consolidation less feasible than it was in eras of more concentrated publishing power. Indeed, other platforms<sup>319</sup> attract users by making a point of disclaiming any rights to their contributions.<sup>320</sup>

The proposed settlement to the class action lawsuit over the Google Book Search project represents another controversial attempt to use (judicially-sanctioned) private ordering to address the problems posed by distributed ownership.<sup>321</sup> Under the terms of the proposed settlement, Google would have the right to assemble and share with subscribers (and, to a more limited extent, the public) a huge database including copyrighted material. Thanks to the opt-out nature of the class action mechanism, Google would not have to locate and negotiate with all widely-distributed copyright holders in order to proceed with this massive consolidation of copyrighted works. The settlement is thus a powerful antidote to the problems posed by atomism. But it has generated objections that are reminiscent of centuries-old objections to the Stationers' Company, and of more recent concerns about powerful consolidators like ASCAP. Although Google's licenses to distribute copyrighted works will in theory be non-exclusive, would-be competitors have little hope of negotiating similar licenses for themselves (with copyright holders who are members of the class that would be bound by the Google settlement but would be impossible to identify and negotiate with individually). As comments offered by the American Library Association note, "[a] class action settlement provided perhaps the most efficient mechanism for cutting the Gordian knot of the huge transactions costs of clearing the rights of millions of works whose ownership often is obscure. However, the class representatives and Google structured

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<sup>316</sup> Stelter, *supra* note \_\_\_\_.

<sup>317</sup> Alan Cowell, *Facebook Withdraws Changes in Data Use*, N.Y. TIMES (Feb. 18, 2009), available at <http://www.nytimes.com/2009/02/19/technology/internet/19facebook.html?em>.

<sup>318</sup> Stelter, *supra* note \_\_\_\_.

<sup>319</sup> See generally Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMM. & HIGH TECH L 1 (2002).

<sup>320</sup> Cf. *Bragg v. Linden Research, Inc.*, 487 F.Supp.2d 593, 595-96 (E.D. Pa. 2007) ("In November 2003, Linden announced that it would recognize participants' full intellectual property protection for the digital content they created or otherwise owned in Second Life. As a result, Second Life avatars may now buy, own, and sell virtual goods ranging "from cars to homes to slot machines."); Bobby Glushko, *Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds*, 22 BERKELEY TECH. L.J. 507 (2007).

<sup>321</sup> See generally Merges, *The Concept of Property in the Digital Era*, *supra* note \_\_\_\_, at 1269 n. 75 (noting that "the recent settlement between Google and various book publishers over the controversial Google Book Search resource may just contain the germ of a future collective licensing operation.").

the Settlement in such a manner as to give them enormous control over this essential facility.”<sup>322</sup> Harvard historian and university librarian Robert Darnton makes the historical comparison to the Stationers’ Company explicit:

The eighteenth-century philosophers saw monopoly as a main obstacle to the diffusion of knowledge—not merely monopolies in general . . . but specific monopolies such as the Stationers’ Company in London and the booksellers’ guild in Paris, which choked off free trade in books. Google is not a guild, and it did not set out to create a monopoly. On the contrary, it has pursued a laudable goal: promoting access to information. But the class action character of the settlement makes Google invulnerable to competition. Most book authors and publishers who own US copyrights are automatically covered by the settlement. They can opt out of it; but whatever they do, no new digitizing enterprise can get off the ground without winning their assent one by one, a practical impossibility, or without becoming mired down in another class action suit. If approved by the court—a process that could take as much as two years—the settlement will give Google control over the digitizing of virtually all books covered by copyright in the United States.<sup>323</sup>

Pamela Samuelson puts it succinctly: “The proposed settlement would give Google a monopoly on the largest digital library of books in the world”<sup>324</sup> Like ASCAP before it, Google has caught the attention of antitrust authorities. The U.S. Department of Justice has opened an antitrust inquiry into the proposed settlement.<sup>325</sup>

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<sup>322</sup> Library Association Comments on the Proposed Settlement, The Authors Guild, Inc. v. Google, Inc. (S.D.N.Y. 2009), available at <http://www.arl.org/bm~doc/googlebrieffinal.pdf>.

<sup>323</sup> Robert Darnton, *Google & the Future of Books*, 56 N.Y. REVIEW OF BOOKS (Feb. 12, 2009), available at <http://www.nybooks.com/articles/22281>.

<sup>324</sup> Pamela Samuelson, *The Dead Souls of the Google Booksearch Settlement*, 52 COMMUNICATIONS OF THE ACM (July 2009); see also James Grimmelman, *How to Fix the Google Book Search Settlement*, 12 No. 10 J. INTERNET L. 1, 14-15 (2009) (“Google’s first past-the-post status here could easily turn into a durable monopoly). Cf. Merges, *The Concept of Property*, *supra* note \_\_\_\_, at 1269 n. 75 (raising but not addressing the question “[w]hether it is wise to concentrate this potentially important transactional infrastructure in a single private firm”); Menell, *Knowledge Accessibility*, *supra* note \_\_\_\_, at 1067 (arguing in favor of a public role in establishing a searchable digital archive and noting that “a purely private solution will likely lead to a single provider or perhaps just a few competitors”).

<sup>325</sup> See Miguel Helft, *Justice Dept. Opens Antitrust Inquiry Into Google Books Deal*, N.Y. TIMES (Apr. 28, 2009), available at <http://www.nytimes.com/2009/04/29/technology/internet/29google.html>.

In sum, the broadly distributed individual ownership of copyrights that has been a theoretical feature of copyright law since the Statute of Anne is today a reality. The doctrinal and voluntary consolidation of the past does not fit today's environment, in which many creators operate outside of corporations and other institutions and have the wherewithal to resist consolidators' attempts to acquire their copyrights. Relying on the monopolistic intermediaries of the past seems both anachronistic and inconsistent with author autonomy and other enduring copyright values. But the problems that have long been associated with broadly distributed copyrights persist: valuable efforts to disseminate collections of copyrighted works are endangered by the difficulty of identifying and negotiating with far-flung (and sometimes simply unidentifiable) owners.

### C. Fragmentation

We see a similar pattern when we turn to the next dimension of atomism: fragmentation.

*Concurrent Co-Ownership:* The Internet makes it possible for millions of globally dispersed individuals to make copyrightable contributions to a single collaborative work.<sup>326</sup> Each individual fragment might be quite small (a modest encyclopedia edit, for example), and valuable only when combined with the work of others. But its author could nonetheless be deemed an individual copyright holder with rights to object to exploitation of his fragment of the whole. The work would thus be subject to fragmented concurrent ownership claims that could, ironically, make subsequent collaboration difficult. As Justin Hughes observes:

In our new recombinant culture, digitization allows very small bits and pieces to be copied and reused with extreme ease, while the Internet makes unprecedented amounts of such bits and pieces instantly available for such reuse. If the rest of independent copyright protection shrinks to a "microwork," this recombinant culture is burdened.<sup>327</sup>

As we have seen, several doctrines have served in the past to limit fragmented ownership of individual copyrighted works (or, to use

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<sup>326</sup> See generally Dreyfuss, *supra* note \_\_\_, at 1182; Jane C. Ginsburg, *Putting Cars on the "Information Superhighway": Authors, Exploiters, and Copyright in Cyberspace* 95 COLUM. L. REV. 1466, 1467-68 (1995) ("By facilitating communication among creators and enhancing their ability to disseminate the fruits of their labors, cyberspace may promote new modes of authorship, particularly of a collaborative kind."); Merges, *The Concept of Property in the Digital Era*, *supra* note \_\_\_, at 1249 ("Bands of 'amateurs' contributing small amounts of creative work to constitute an impressive single work were not pioneered in the digital era, but they are certainly much more common now.").

<sup>327</sup> Cf. Hughes, *supra* note \_\_\_, at 575.

Hughes' framework: to limit ownership of "microwork" components of larger works). In particular, the rules governing joint authorship ensure that each of multiple contributors to an integrated work may exploit the entire work (not merely their individual contribution to it), subject only to a duty to account to co-owners for any profits.

But today's authors are likely to collaborate with each other in ways that are not captured by traditional copyright conceptions of joint authorship and the resulting default of joint ownership.<sup>328</sup> In particular, recall that joint authorship status is triggered in part by the authors' "intention that their contributions be merged into inseparable or interdependent parts of a unitary whole."<sup>329</sup> The legislative history of the 1976 Act indicates that the requisite intention should be measured at the time the authors make their contributions. "[T]he touchstone here is the intention at the time the writing is done."<sup>330</sup> But it is common today for artists to prepare free-standing copyrightable works and subsequently to post them on the Internet and invite collaboration. The resulting asynchronous collaboration falls outside at least some judicial interpretations of joint authorship.<sup>331</sup> As for the substance of the intent, some post-1976 courts require not merely the intent to merge the contributions, but the intent that the collaborators have the status of joint authors<sup>332</sup>—a legal (or perhaps creative or philosophical<sup>333</sup>) category that is surely not within the contemplation of many of today's independent and serendipitous collaborators. As Margaret Chon observes, "the joint work category . . . seems not to recognize the morphability, flexibility and fluidity of networked digitized works."<sup>334</sup> In addition, recall that

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<sup>328</sup> Cf. Dougherty, *supra* note \_\_\_, at 319 ("[B]y creating the additional intent rules and the requirement that a joint author have control over creation of the work, courts effectively eliminate the possibility of a set of default liability rules for highly collaborative works for which such rules could be most useful."). *But cf.* Ginsburg, *Putting Cars on the "Information Superhighway," supra* note \_\_\_, at 1470-71 (imagining asynchronous online collaboration that would satisfy the joint work definition).

<sup>329</sup> 17 U.S.C. § 101.

<sup>330</sup> H.R. Rep., 94-1476, at 120.

<sup>331</sup> "The fact that the identity of such other authors has not been determined at the time of the original creation does not, according to these cases, derogate from their status as joint authors." 1 NIMMER, *supra* note \_\_\_, at 6.03. "But the current Act rejects the further extension of the concept of joint authorship as formulated in . . . the "12<sup>th</sup> Street Rag" case . . . [in which] the court held that even if the intent to contribute to a joint work does not exist at the time the author's contribution is initially created, if such intention is subsequently formed by the author or his assignee this will be sufficient to render the resulting combination a joint work." *Id.*; *see also* Chon, *supra* note \_\_\_, at 269 ("[C]ourts have construed intent narrowly to mean that all putative joint authors must intend to make a joint work at the time of the creation of that work.").

<sup>332</sup> *See, e.g.,* Aalmuhammed v. Lee, 202 F.3d 1227, 1234 (9<sup>th</sup> Cir. 2000) ("[P]utative coauthors make objective manifestations of a shared intent to be coauthors."); Thomson v. Larson, 147 F.3d 195, 202-24 (2<sup>nd</sup> Cir. 1998); Childress v. Taylor, 945 F.2d 500 (2<sup>d</sup> Cir. 1991).

<sup>333</sup> The *Childress* court said the requirement was not that the parties "intended the legal consequences" but that "some distinguishing characteristic of the relationship must be understood in order for it to be the subject of their intent." *Childress*, 945 F.2d, 508.

<sup>334</sup> Chon, *supra* note \_\_\_, at 270; *see also* Dreyfuss, *supra* note \_\_\_, at 1208-09 ("[I]f the Second Circuit's test on joint authorship is the law of the land . . . , then joint authorship is not an appropriate way in which to deal with collaborations. . . . [T]he intent

some courts have required putative co-authors to have both made a copyrightable contribution to the work and to have exercised control over the creative enterprise as a whole, serving as its “superintendent” or “mastermind.”<sup>335</sup> The small contributions that, say, Wikipedia contributors make are unlikely to qualify the contributors as joint authors under these tests.<sup>336</sup>

Outside of joint authorship’s unifying default ownership rules, unification through private ordering is a potential solution to the difficulties posed by fragmented ownership. But a recent example demonstrates again the likely opposition by individual authors and their advocates to aggressive unification.

Lucasfilm, the company that owns the rights to the Star Wars movies, has made clips, images, and sound from those movies available for fans to remix into their own digital film collages. As authorized derivative works, the resulting “mashups” are eligible for highly fragmented copyright protection, with ownership of the new elements initially accruing to the fan-authors while ownership of the preexisting material remains with Lucasfilm.<sup>337</sup> But the Star Wars Mashup terms of service provide that each mashup author grants Lucasfilm an “*exclusive*, royalty free, worldwide license in all rights titles and interests of every kind and nature” in the mashup film.<sup>338</sup> The license is perpetual, irrevocable, and transferable.<sup>339</sup> Although this does not by its terms purport to be an outright assignment of the entire copyright, it might as well be. Not only can Lucasfilm exercise and transfer rights that are otherwise exclusive to the copyright holder, it becomes the *exclusive* rights holder, who can object to unauthorized copying, etc., even by the mashup author.<sup>340</sup> In an

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test is fair only if participants in the creative process know each other’s plans. Unfortunately, many collaborations have features, such as cultural differences, divergent disciplinary practices, and valuation gaps, that make misunderstanding quite likely.”). See generally Robert P. Merges, *Locke for the Masses: Property Rights and the Products of Collective Creativity*, 36 HOFSTRA L. REV. 1179, 1180 (2008) (observing that effort by “large groups of dispersed creators” “is not well-accounted for in our legal system, which is organized around the idea of a single highly centralized creative entity”); Merges, *The Concept of Property in the Digital Era*, *supra* note \_\_\_, at 1273-74 (“Our system identifies individual authors, and is in fact designed to link individuals or small groups with the assets they create. But that system has difficulty recognizing affirmative rights in the fruits of group creativity.”)

<sup>335</sup> E.g. *Aalmuhammed*, 202 F.3d, 1234; see generally *supra* notes \_\_\_ and accompanying text.

<sup>336</sup> See generally Dreyfuss, *supra* note \_\_\_, at 1200 (“The [Copyright] Act’s provisions on multiple authorship are based on two paradigms: such work is either produced at the instigation of an ‘orchestrator,’ who chooses individuals to work for hire on particular aspects of the orchestrator’s vision, or it is produced by a single or small group of individuals, working jointly. Neither of these paradigms map well on the collaborative efforts of today.”)

<sup>337</sup> 17 U.S.C. § 103.

<sup>338</sup> Star Wars MashUps Terms of Service, available at <http://www.starwars.com/welcome/about/mashup-copyright> (emphasis added).

<sup>339</sup> *Id.*

<sup>340</sup> Note that this is, in a way, a variation on the default regime that governs derivative works. Had Lucasfilm not authorized the mashups, and assuming that they fell outside the bounds or any other exception to copyright’s coverage, the ownership

editorial in the Washington Post, Lawrence Lessig specifically targeted the Starwars Mashup Service: “Upload a remix and George Lucas, and only Lucas, is free to include it on his Web site or in his next movie, with no compensation to the creator. . . . Put in terms appropriately (for Hollywood) over the top: The remixer becomes the sharecropper of the digital age.”<sup>341</sup> Lessig elsewhere notes the connection between such practices and other controversial consolidating techniques: “This trend away from artists owning their creations is not new. It has long been part of commercial creativity. In America, for example, the ‘work-for-hire’ doctrine strips the creator of any rights in a creative work made for a corporation, vesting the copyright instead in that corporation.”<sup>342</sup>

Thus, as with Facebook’s efforts to use adhesion to its terms of service to consolidate its control over the many different contributions of its millions of subscribers, attempts to use private ordering to unify fragmentary ownership of collaborative works have encountered resistance from individual creators, and advocates for individual creators, who justifiably value the authorial autonomy over creative fragments that today’s technological tools seem to make more sustainable than in the past.

*Divisibility:* Fragmentation through private ordering seems more prevalent in the digital age than voluntary consolidation. Copyright owners have taken full advantage of the flexibility introduced by abolition of the indivisibility doctrine in the 1976 Act, transferring individual sticks in the copyright bundle in increasingly complex ways.<sup>343</sup> In addition, past transfers are interacting with technological developments in a way that amplifies the potential transaction costs imposed by fragmentation. For example, distribution of a copyrighted work over the Internet may implicate numerous exclusive rights that are held by different people who did not expect their fragmented rights to overlap with each other.<sup>344</sup> Mark Lemley explains this growing problem:

For those who wish to use one of the exclusive rights, . . .  
divided rights may be a minor inconvenience, but  
generally no more than that; the party seeking a license

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provisions of the Copyright Act would deny the mashup authors the status of copyright owners. 17 U.S.C. § 103 (“[P]rotection for a work employing preexisting material in which copyright subsists does not extend to any part of the work in which such material has been used unlawfully.”).

<sup>341</sup> Lawrence Lessig, *Lucasfilm’s Phantom Menace*, THE WASHINGTON POST, at A23 (July 12, 2007), available at <http://www.washingtonpost.com/wp-dyn/content/article/2007/07/11/AR2007071101996.html>.

<sup>342</sup> LAWRENCE LESSIG, REMIX 244 (2008).

<sup>343</sup> See generally Schwartz, *supra* note \_\_\_, at 2092-93 (observing that contemporary copyright law “is premised on numerous divisible interests in a given piece of underlying intellectual property”).

<sup>344</sup> Lemley, *Dealing with Overlapping Copyrights*, *supra* note \_\_\_, at 549 (“A single act of transmission or browsing on the Net can potentially violate *all* of the exclusive rights listed in the Copyright Act . . .”).

simply needs to determine who has the exclusive right to authorize the particular conduct at issue. By contrast, consider the dilemma faced by someone who wishes to make available over the Net a copyrighted work in which ownership rights have been divided. . . . [P]osting such a work may make the individual posting it liable for infringement to several different entities, each of which will claim the exclusive right to authorize the same conduct. For similar reasons, even obtaining a license from the owner of the public display right will not permit the licensee to display the work on the Net, since such a display *also* makes copies and involves distribution of the work, and those rights may be owned by different parties. In the context of divided ownership, overlapping rights governing the same conduct may serve as a trap for unwary users, even those who have licensed the copyright from “the” owner in good faith.<sup>345</sup>

Lemley goes on to note how this type of fragmentation and overlap may challenge institutions that have helped to overcome fragmentation in the past:

[Overlapping rights] may undermine the laudable efforts of groups like American Society of Composers, Authors and Publishers (ASCAP) and the Copyright Clearance Center (CCC) to provide efficient market-clearing mechanisms for low-value copyright licenses. ASCAP licenses only performance rights, and the CCC only reproduction rights. The value of these services will be substantially reduced if they do not actually grant the licensee the right to use the work in question. The only way to guarantee that you are not infringing by placing something on the Net appears to be to find and obtain a license from *each* of the different owners of a potentially relevant exclusive right.<sup>346</sup>

Thus, the effect of fragmentation of the copyright bundle into separate rights is exacerbated by the often unanticipated ways in which the fragments interact with new technologies for exploiting works that are subject to fragmented ownership.

We may be starting to see some judicial reaction to the complexity caused by divisibility. In *Gardner v. Nike*, the Ninth Circuit held that an exclusive licensee of only some of the rights included in the copyright bundle may not subsequently transfer that license without the express permission of the original licensor.<sup>347</sup> The

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<sup>345</sup> Lemley, *Dealing with Overlapping Copyrights*, *supra* note \_\_\_\_, at 570-71.

<sup>346</sup> Lemley, *Dealing with Overlapping Copyrights*, *supra* note \_\_\_\_, at 571.

<sup>347</sup> *Gardner v. Nike, Inc.*, 279 F.3d 774 (9<sup>th</sup> Cir. 2002).

decision, which has been criticized as failing to implement the divisibility policy embodied in the 1976 Act,<sup>348</sup> seems to reflect anxiety about the atomizing effects that fully recognizing that policy would have if transferred fragments could easily be re-transferred and re-fragmented outside of the control of any one steward.<sup>349</sup>

*Customization.* This situation would be complicated enough if copyright owners were merely dividing the bundle into the separate rights (to reproduce, to prepare derivative works, etc.) identified in section 106 of the Copyright Act. But, in fact, technology-empowered authors who self-publish on the Internet are applying the same do-it-yourself spirit to copyright, crafting transfers and licenses that satisfy their particular whims, imposing novel definitions of the rights at issue and imposing limits on when, where, how, and under what circumstances transferees and licensees can exploit the covered works.<sup>350</sup> This proliferation of idiosyncratic copyright forms exacerbates the information cost problems associated with fragmentation.<sup>351</sup>

To take just one example, individual educators and educational institutions are increasingly using the Internet to share teaching materials—entire online courses, lesson plans, teaching texts, etc. But a recent study finds that the idiosyncratic copyright terms often attached to these materials are difficult to understand and can make it impossible to combine resources without running afoul of their terms.<sup>352</sup>

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<sup>348</sup> See, e.g., 3 NIMMER, *supra* note \_\_\_, at § 10.02(B)(4); *Traicoff v. Digital Media, Inc.*, 439 F. Supp. 2d 872 (S.D. Ind., 2006).

<sup>349</sup> The Ninth Circuit explained its holding this way: “[T]here are strong policy reasons to place the burden on the licensee to get the licensor’s explicit consent either during or after contract negotiations. Placing the burden on the licensee assures that the licensor will be able to monitor the use of the copyright. . . . It is easy to imagine the troublesome and potentially litigious situations that could arise from allowing the original licensor to be excluded from the negotiations with a sublicensee. For example, what if the sublicensee was on the verge of bankruptcy or what if the original licensor did not agree that the sublicensee’s materials use of the copyright fell within the original exclusive license? Requiring the licensee to get explicit consent from the licensor strikes the balance between the competing interests that underlie the 1976 Act and copyright law in general. On the one hand, the 1976 Act reflects Congress’ growing awareness of the need for free alienability and divisibility. Yet, both Congress and this Circuit have always been aware of the necessity to preserve the rights and control of the owners and creators. In order to reach the balance between these interests, we hold that, under the 1976 Act, an exclusive licensee has the burden of obtaining the licensor’s consent before it may assign its rights, absent explicit contractual language to the contrary.” *Gardner*, 279 F.3d, at 16-18.

<sup>350</sup> See generally Van Houweling, *The New Servitudes*, *supra* note \_\_\_; 3 NIMMER, *supra* note \_\_\_, at § 10.02 (“Suppose the exclusive license is limited to given rights at a particular time, in a particular geographic area. Again, such a grant will convey copyright ownership in such rights. . . . Indeed, there would appear to be no limit on how narrow the scope of licensed rights may be and still constitute a ‘transfer’ of ownership, as long as the rights thus licensed are ‘exclusive.’”).

<sup>351</sup> See generally Van Houweling, *The New Servitudes*, *supra* note \_\_\_; Merrill & Smith, *Optimal Standardization*, *supra* note \_\_\_.

<sup>352</sup> CCLEARN, WHAT STATUS FOR “OPEN”? AN EXAMINATION OF THE LICENSING POLICIES OF OPEN EDUCATIONAL ORGANIZATIONS AND PROJECTS (2008), *available at*

*Temporal Fragmentation:* The full fragmenting effects of the termination-of-transfer provisions added by the 1976 Act<sup>353</sup> are just beginning to emerge, as the first termination notices authorized by the Act for post-1978 transfers were sent in 2003 and will take effect in 2013.<sup>354</sup>

In enacting the provisions in 1976, Congress was clearly keen to promote authorial autonomy and, specifically, the opportunity for a “second bite at the apple” of copyright negotiation. The provisions allow authors and their statutory heirs to terminate transfers notwithstanding any “agreement to the contrary”—thus preempting the type of temporal reunification through private ordering that was endorsed in the *Fred Fisher* case.<sup>355</sup> As we have seen, this type of solicitude for authorial autonomy can impose the countervailing costs associated with atomism.<sup>356</sup> And so it is no surprise that there has again been pressure somehow to enable reunification of temporally fragmented copyrights. This pressure came first from the recording industry, which was especially anxious about the possibility that the numerous individuals who often contribute to a sound recording might be able to disrupt its continued exploitation by exercising their termination rights.<sup>357</sup> Responding to this concern, Congress in 1999 amended the work-for-hire definition to add sound recordings to the list of specially commissioned works that could qualify as works made for hire (to which the termination of transfer provisions do not apply) if so designated in an agreement signed by the parties. This amendment made it possible for record companies to established unified ownership (for the entire copyright term) of sound recordings prepared by teams of individuals—even if, as is increasingly the case in the music industry, those individuals were not record company employees. But the amendment triggered so much controversy, including objections from prominent recording artists, that it was almost immediately repealed.<sup>358</sup>

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[http://learn.creativecommons.org/wp-content/uploads/2009/01/license-mapping-report-15\\_dec\\_-2008-black-and-white-v2.pdf](http://learn.creativecommons.org/wp-content/uploads/2009/01/license-mapping-report-15_dec_-2008-black-and-white-v2.pdf).

<sup>353</sup> See *supra* note \_\_\_\_ and accompanying text.

<sup>354</sup> See generally Nimmer & Menell, *Sound Recordings*, *supra* note \_\_\_\_.

<sup>355</sup> See *supra* note \_\_\_\_ and accompanying text.

<sup>356</sup> The provision has also been criticized for inadvertently undermining authorial autonomy by limiting the value of the copyright that an author can initially transfer. *Cf.* *Fred Fisher Music Co. v. M. Witmark & Sons*, 318 U.S. 643, 657 (1943) (making a similar argument with regard to the question whether, under the old renewal system, authors should be able to assign their renewal rights in advance). *But cf.* Lee Anne Fennell, *Adjusting Alienability*, 112 HARV. L. REV. 1403, 1448 (2009) (“Interestingly, it is not always clear whether alienability restrictions weaken or strengthen property rights. The ambiguity arises because alienability’s value derives not only from the freedom to engage in (and resist) transfers, but also from the ability to extract surplus from those transfers. Certain limitations on transactions that make them less likely to occur can also increase the surplus that a buyer or seller will receive if a transaction does occur.”).

<sup>357</sup> See generally Nimmer & Menell, *Sound Recordings*, *supra* note \_\_\_\_.

<sup>358</sup> See generally 1 NIMMER, *supra* note \_\_\_\_, at § 5.03[B][2][a][ii].

More recently, courts have managed to re-inject the potential for unifying private ordering through controversial interpretations of the termination of transfer provisions. For example, in *Penguin Group (USA) Inc. v. Steinbeck*,<sup>359</sup> the Second Circuit held that author John Steinbeck's grant of an exclusive license to his publisher could be cancelled by his widow (as copyright owner) and replaced with a new license that would not be subject to termination—thereby extinguishing the termination rights held by Steinbeck's (multiple) statutory heirs and reunifying the rights in the hands of the exclusive publisher.<sup>360</sup>

*Tangible/Intangible Fragmentation:* Recall that in addition to codifying the tangible/intangible ownership distinction in section 202,<sup>361</sup> the 1976 Act codified the first sale doctrine, which re-injects a bit of holism into the statutory scheme by providing that the owner of a (lawfully-made) physical copy of a copyrighted work may distribute and display it publicly without the permission of the copyright owner.<sup>362</sup> Tangible ownership is thus unified with these specified rights to use the expressive work—all packaged as a bundle, not atomistic sticks subject to separate transactions.

In the contemporary environment the first sale doctrine's scope—and thus its holistic effect—is limited. First, the doctrine's exemption for distribution and display of lawfully-owned copies is ineffective to insulate most digital distribution and display, because those actions also implicate the non-exempt reproduction right.<sup>363</sup> So, for example, a museum may display copyrighted paintings on its walls without the copyright owner's permission, but not on the virtual walls of its website. Doing so involves reproduction of the work onto the computers that host it (and ultimately onto the computers of viewers), and the first sale doctrine does not by its terms apply to the

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<sup>359</sup> 537 F.3d 193 (2<sup>nd</sup> Cir. 2008).

<sup>360</sup> The Ninth Circuit had come to a similar conclusion in *Milne v. Steven Slesinger, Inc.*, 430 F.3d 1036 (9<sup>th</sup> Cir. 2005), although it recently read that precedent quite narrowly in *Classic Media, Inc. v. Mewborn*, 532 F.3d 978 (9<sup>th</sup> Cir. 2008). See generally Peter S. Menell & David Nimmer, Judicial Resistance to Copyright Law's Inalienable Right to Terminate Transfers, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1355678](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1355678).

<sup>361</sup> "Ownership of a copyright, or any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object." 17 U.S.C. § 202.

<sup>362</sup> 17 U.S.C. § 109.

<sup>363</sup> On the state of the first sale doctrine in the digital age, see generally John A. Rothchild, *The Incredible Shrinking First-Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1 (2004); R. Anthony Reese, *The First Sale Doctrine in the Era of Digital Networks*, 44 B.C. L. REV. 577 (2003); Joseph P. Liu, *Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership*, 42 WM. & MARY L. REV. 1245, 1303 (2001).

reproduction right.<sup>364</sup> Furthermore, copyright holders have been attempting (with mixed results) to limit the effect of the first sale doctrine through contractual and quasi-contractual restrictions on display and distribution of copies of their works.<sup>365</sup>

The current, unprecedented level of fragmentation of intangible copyrights and tangible objects imposes information costs on would-be users of intangible rights.<sup>366</sup> Ownership of physical objects conveys no useful information about the ownership of the intangible work—or worse, ownership may create false expectations for object owners who think “I bought this DVD, so I can do what I want with it.”

One might argue, however, that the information cost consequences of this fragmentation are less severe than they were in the past, because owners of the types of “objects” in which expressive works are embedded in the digital age are less likely than their predecessors to have false expectations about intangible rights. As Joseph Liu notes, “we might expect conventional understandings of ownership specific to digital copies to be relatively underdeveloped, because digital copies are a relatively recent phenomenon. Certainly any conventional understandings that do exist would probably not be as firmly ingrained as the understandings we hold about physical property, which has been around for centuries.”<sup>367</sup> And yet, Liu concludes that “Internet users in a relatively strong sense do in fact think of digital copies in their possession as their ‘property.’ . . . The digital pattern of ones and zeros that I download to my computer seems, in some very real sense, ‘mine,’ in that I have physical dominion over it and no other indicia prevent me from exercising this dominionship.”<sup>368</sup>

Whether or not owners of digital objects have firm (and false) understandings about their rights to exploit intangible rights to the works embedded in those objects,<sup>369</sup> the clear consequence of tangible/intangible fragmentation is that no accurate information about the status of the intangible rights is conveyed by ownership or possession of the object alone. Like other dimensions of atomism, this type of fragmentation imposes the potential for confusion about and under-exploitation of works whose ownership status is difficult to discover.

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<sup>364</sup> See generally Reese, *The First Sale Doctrine*, *supra* note \_\_\_\_, at 612.

<sup>365</sup> Compare, e.g. *UMG Recordings, Inc. v. Augusto*, 558 F.Supp.2d 1055 (C.D. Cal. 2008), and *SoftMan Prods. Co. v. Adobe Sys.*, 171 F.Supp.2d 1075 (C.D.Cal.2001), with *Adobe Systems Inc. v. One Stop Micro, Inc.*, 84 F. Supp. 2d 1086 (N.D. Cal. 2000); *Microsoft Corp. v. Software Wholesale Club, Inc.*, 129 F. Supp. 2d 995 (S.D. Tex. 2000).

<sup>366</sup> See generally Long, *supra* note \_\_\_\_.

<sup>367</sup> Liu, *Owning Digital Copies*, *supra* note \_\_\_\_, at 1303.

<sup>368</sup> *Id.*

<sup>369</sup> On the possibility of “reframing” existing expectations about the sticks in the property bundle, see Stephanie Stern & Jonathan Nash, “Property Frames” (2009 draft available at <http://papers.isnie.org/paper/425.html>).

*Summary:* Each type of fragmentation I have identified in my survey of Anglo-American copyright is on dramatic display in the current copyright environment. As in the past, we see some private and public anxiety about the consequences of this fragmentation. But for the most part efforts to reunify fragmented copyrights are failing to overcome countervailing pressure to allow copyright holders to slice and dice their copyrights in ways that impose information costs and transactional complexities on the copyright system as a whole.

#### **D. Atomism Across Multiple Dimensions**

Three themes emerge from this brief survey of atomism in the contemporary copyright environment. First, copyright in the United States is more atomistic on every dimension than it has been in the past. Second, the proliferation, distribution, and fragmentation that we observe today are not easily amenable to the doctrinal or marketplace solutions that evolved in previous eras. Third, those recent attempts that have been made to address atomism through doctrinal reform or private ordering have met with often insurmountable—and justifiable—opposition. This opposition is no surprise in light of the history surveyed above. After all, the holistic practices that characterized the Stationers' Company era avoided the problems associated with atomism but also devalued authorial autonomy, shielded a small group of London publishers from competition, and facilitated state censorship. These characteristics were objectionable even at the time, and eventually led to the repeal of official protection for the stationers' monopoly. They are far more objectionable now—in part because our contemporary copyright system is built upon the very values of authorial autonomy and encouragement of diverse creative activity that were endangered under the Stationers' Company,<sup>370</sup> but also because today's technological environment makes reliance on a few powerful publishers seemingly unnecessary.

#### **IV. Alleviating Atomism While Honoring Autonomy in Contemporary Copyright**

The history of copyright atomism surveyed above demonstrates a number of techniques for limiting proliferation, distribution, and fragmentation of copyrights, and for responding (publicly and privately) to the consequences of increased atomization on these three dimensions. In the current copyright environment, the limits have largely been abandoned and the responses are ineffective or objectionable. In particular, recent efforts to address the costs of atomism through private consolidation and unification of copyrights harken back to eras in the history of copyright that are now notorious

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<sup>370</sup> See generally Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_\_.

for failing to uphold the values of authorial autonomy, creative diversity, and distributive justice. These are core values in a healthy copyright system—especially in an era in which affordable technology for creativity and dissemination makes them seem so attainable.<sup>371</sup>

The lesson to glean from this history is therefore largely cautionary: atomistic copyright causes information and transaction cost problems that can be addressed by limiting proliferation, distribution, and fragmentation of copyright. But the techniques that have historically been used to impose those limits have been controversial in the past, have triggered the type of backlash exemplified by the 1976 Act, and seem especially inappropriate today.<sup>372</sup>

Many alternative techniques could be deployed to address the consequences of atomism.<sup>373</sup> For now, I offer just two speculative possibilities.

*Managing the Information Costs of Atomistic Copyright:* New technology may make it more plausible than it has been in the past to address the problems caused by atomism directly—that is, to develop mechanisms for managing the information costs imposed by atomism instead of trying to avoid those costs by making copyright more holistic.<sup>374</sup> There is a lesson from history here: the registration and notice requirements that once limited proliferation of copyrights also provided information that could ease transactions in those copyrights that were created. It may be politically infeasible simply to reinstate the strict registration and notice requirements that were abandoned to comply with the Berne Convention. But an improved voluntary scheme—with enhanced incentives for registration—may provide a useful alternative.<sup>375</sup> And technology could make information-

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<sup>371</sup> Cf. Wu, *On Copyright's Authorship Policy*, *supra* note \_\_\_\_ (arguing in favor of decentralized authorial copyright ownership as a mechanism for promoting competition and innovation in distribution).

<sup>372</sup> See generally Samuelson, *Copyright and Freedom of Expression*, *supra* note \_\_\_\_, at 343 (“Copyright’s past will unquestionably be a prologue to its future. The principal question is whether modern copyright principles will predominate or whether the law will evolve further toward postmodern structures and practices which pose dangers for free expression values similar to those of the pre-modern copyright regime.”).

<sup>373</sup> Candidates for further exploration are suggested by, e.g., Zimmerman, *supra* note \_\_\_\_ (considering the model of up-front payment for artistic production that is then released into the public domain); Dreyfuss, *supra* note \_\_\_\_ (advocating changes in the default rules of patent and copyright to better reflect the realities of contemporary collaboration); Tim Wu, *Tolerated Use*, 31 COLUM. J.L. & ARTS 617 (2008) (exploring “opt-in” copyright and other innovations); Fennell, “Slices and Lumps,” *supra* note \_\_\_\_ (describing various techniques for re-configuring property).

<sup>374</sup> See generally Robert P. Merges, *The End of Friction? Property Rights and Contract in the “Newtonian” World of On-Line Commerce*, 12 BERK. TECH. L.J. 115, 16 (1997) (explaining how some, but not all, types of transaction costs can be reduced in the on-line environment).

<sup>375</sup> For example, Sprigman suggests that “[t]he simplest solution would be to preserve formally voluntary registration, notice, and recordation of transfers (and reestablish a formally voluntary renewal formality) for all works, including works of foreign authors, but then incent compliance by exposing the works of noncompliant

provision less onerous and threatening to author autonomy than in the past.<sup>376</sup> For example, instead of a centralized registry, information costs could be reduced with machine-readable tags that could be attached to and travel with digital works.<sup>377</sup>

The tangible property context offers some precedent for this type of solution: land recording acts give public notice of the status of land titles and encumbrances and thus address some of the information costs that would otherwise be imposed by hidden servitudes and other unusual and fragmentary property interests.<sup>378</sup> Doctrines aimed at preserving holistic land ownership have gradually fallen away in light of these alternative mechanisms for addressing the information costs imposed by servitudes.<sup>379</sup>

*Coordinating Instead of Consolidating:* Instead of consolidating ownership in a few intermediaries, some problems associated with atomism might be avoided by merely coordinating the terms by which distributed individual owners manage their rights. One promising coordination technique builds on current practices in “public licensing.”

In its 2008 *Jacobsen v. Katzer* decision,<sup>380</sup> the Federal Circuit affirmed the technique of public licensing, whereby a copyright holder publicly announces the terms under which her work may be reused by anyone. When a potential licensee is satisfied with the offered terms, she need not enter into individualized negotiations with the copyright holder. She may simply proceed to use the work as permitted by (but subject to the limitations of) the public license. By

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rightsholders to a ‘default’ license that allows use for a predetermined fee.” Sprigman, *supra* note \_\_\_, at 555. Sprigman argues that “the better reading of Berne” would permit these “new style formalities. *Id.* at 556; *see also* Merges, *The End of Friction?*, *supra* note \_\_\_, at 128 (“In conjunction with its adherence to the international copyright treaty known as the Berne Convention, the United States substantially weakened the incentive for all copyright holders to register their copyrights. This development is unfortunate. Just at the moment when electronic databases make such registered information highly useful, we have moved away from universal registration. For the same reasons that real property recording systems are considered efficient, we should reconsider this policy. One approach might be to increase incentives to register, possibly by decreasing liability when infringement involves material unregistered on a centralized electronic copyright database.”). *Cf.* Menell, *Knowledge Accessibility*, *supra* note \_\_\_, at 1066 (urging Congress to require “that publishers and authors deposit a digital version of their works with the Library of Congress”).

<sup>376</sup> Sprigman, *supra* note \_\_\_, at 517 (“Administering registration and renewal through simple online forms would lower the cost of complying with these formalities and reduce the incidence of unintentional noncompliance. Similarly, turning over the task of administering registration and renewal formalities to a number of private firms would . . . increase the availability of consumer information about compliance with formalities and further reduce the incidence of unintentional compliance.”).

<sup>377</sup> Provisions of the Digital Millennium Copyright Act protect this type of “copyright management information” from falsification, removal, and alteration. 17 U.S.C. §1202. *See generally* Jane C. Ginsburg, *The Right to Claim Authorship in U.S. Copyright and Trademarks Law*, 41 HOUS. L. REV. 263, 284 (2004) (discussing the provisions).

<sup>378</sup> *See generally* Van Houweling, *The New Servitudes*, *supra* note \_\_\_.  
<sup>379</sup> *Id.*

<sup>380</sup> 2008 WL 3395772 (Fed. Cir. 2008).

preemptively waiving an individual copyright holder's right to exclude under specified circumstances, these licenses partially alleviate the costs associated with atomistic copyrights without ceding control to a consolidating intermediary.

The paradigmatic example of copyright public licensing is the GNU<sup>381</sup> General Public License (GPL)<sup>382</sup> promulgated by the Free Software Foundation.<sup>383</sup> The GPL grants permission to copy, distribute, and modify the computer software programs to which it applies, provided that certain requirements are satisfied.<sup>384</sup> Namely, any copies or modifications that are distributed must be accompanied by their source code and must be available on the GPL's terms.<sup>385</sup> The license announces that any recipient of these copies or modifications "automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions."<sup>386</sup> So if all goes as provided in the GPL, everyone who receives a copy or modified version of the software also receives a license, and their use of the software is subject to the license terms. The GPL is the most prominent license within a family of licenses promulgated by the Free Software Foundation; others include the GNU Free Documentation License (FDL), which was designed to apply to software documentation.<sup>387</sup>

Another family of public licenses moves beyond the realm of computer software and into the realm of culture. Creative Commons is a non-profit organization that promotes licenses that are designed to be applied to a variety of copyrightable works, including music, text, images, and movies.<sup>388</sup> Like the GPL, these licenses permit copying, distribution and, in some cases, modification of covered works, but are subject to certain conditions that copyright holders choose from a menu of terms.<sup>389</sup> Among these is a "share alike" provision, which (like the GPL) requires that derivative works be licensed on the same terms.<sup>390</sup> That is, the creator of a derivative work based upon a work licensed under a Creative Commons share-alike license must give other people permission to copy and modify that derivative work

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<sup>381</sup> GNU is the software project with which Richard Stallman launched the free software movement. The acronym stands for "Gnu's Not Unix." See Richard Stallman, *The GNU Manifesto* (1993), available at <http://www.gnu.org/gnu/manifesto.html>.

<sup>382</sup> GNU GENERAL PUBLIC LICENSE (Version 3, June 29, 2007), <http://www.fsf.org/licenses/licenses/gpl.html>.

<sup>383</sup> This description of public licensing borrows from my earlier work on the topic in *The New Servitudes*, *supra* note \_\_\_\_, and in Molly Shaffer Van Houweling, *Cultural Environmentalism and the Constructed Commons*, 70-SPG LAW & CONTEMP. PROBS. 23 (2007).

<sup>384</sup> *Id.*

<sup>385</sup> See *id.* at para. 1–3.

<sup>386</sup> See *id.* at para. 6.

<sup>387</sup> GNU FREE DOCUMENTATION LICENSE pmb1. (Version 1.2, 2002), <http://www.fsf.org/licenses/licenses/fdl.html>.

<sup>388</sup> Creative Commons, History, <http://wiki.creativecommons.org/History>.

<sup>389</sup> Creative Commons, About Licenses <http://creativecommons.org/about/licenses>.

<sup>390</sup> *Id.*

subject to the condition that they do the same with their derivative works, and so on.<sup>391</sup>

These public licenses solve some of the problems I associate with copyright atomism. By allowing licensees to bypass individual negotiations with copyright holders, they alleviate search and negotiation costs. Of course, transaction costs may still arise if the potential licensee wants to do something with the work that is covered by copyright but outside the terms of the public license. But at least some subset of reuse can proceed without individual contact or negotiation.

But these public licenses do not avoid—and indeed may exacerbate—some of the other costs I associate with copyright atomism—specifically those that stem from the creation of idiosyncratic copyright fragments.<sup>392</sup> Incompatibility between the various flavors of public licenses can make it difficult to combine licensed work—even under circumstances that seem generally consistent with the expressed preferences of the original licensors. For example, both the GPL family of licenses and Creative Commons “share-alike” licenses raise the specter of license incompatibility by requiring that derivative works prepared by the licensee be licensed under the same terms as the licensed work. That means that derivatives based upon GPL-licensed software can only be licensed under the GPL; other licenses—including other licenses that similarly seek to promote the model of open and non-proprietary software development—are incompatible. As for Creative Commons, no two share-alike works can be combined into a new derivative work unless the terms of their respective licenses match. This causes incompatibility even within the Creative Commons system, which offers licensors the choice of two different (non-matching) share-alike licenses.<sup>393</sup> And there are many other non-Creative Commons licensing possibilities that are similarly incompatible with Creative Commons share-alike licenses.

One way to avoid the incompatibility problem is for an entire community to agree to use one license (or a compatible set of licenses). Institutional intermediaries can play a useful coordinating role here.<sup>394</sup> Consider the Wikipedia example. Like Facebook and the Starwars Mashup Service, Wikipedia has a copyright policy that

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<sup>391</sup> *Id.* This requirement of identical permissive licensing of derivatives of a licensed work is often referred to as a “copyleft” provision. See, e.g., LAWRENCE ROSEN, OPEN SOURCE LICENSING: SOFTWARE FREEDOM AND INTELLECTUAL PROPERTY LAW 105–06 (2005); Free Software Foundation, What is Copyleft?, <http://www.fsf.org/licensing/essays/copyleft.html>.

<sup>392</sup> See discussion *supra* note \_\_\_ and accompanying text.

<sup>393</sup> See Zachary Katz, *Pitfalls of Open Licensing: An Analysis of Creative Commons Licensing*, 46 IDEA 391 (2006).

<sup>394</sup> Rochelle Cooper Dreyfuss refers to these as “‘second order solutions:’ policies set by institutions that interact with the participants and share their expertise, but which are more responsive to the public interest.” Dreyfuss, *supra* note \_\_\_, at 1182. On the role of institutions that facilitate intellectual property exchange, see generally Merges, *Contracting into Liability Rules*, *supra* note \_\_\_; Merges, *Intellectual Property Rights and the New Institutional Economics*, *supra* note \_\_\_.

specifies the copyright status of contributions to the Wikipedia project.<sup>395</sup> But instead of consolidating rights in the hands of the platform owner in the way that has triggered autonomy-based objections elsewhere, the Wikipedia terms instead merely coordinate the license choices of all contributors by specifying that everything contributed to Wikipedia is available under the same public license (the GPL FDL<sup>396</sup>). Within the community of Wikipedia contributors, this coordination solves incompatibility problems that might otherwise be posed by atomistic copyright claimed in inconsistent ways by the myriad contributors to Wikipedia.<sup>397</sup>

Similarly, copyrights in MIT's OpenCourseWare materials are generally retained by the faculty members who created them, but are licensed consistently under a specified Creative Commons license.<sup>398</sup> Harvard University's Faculty of Arts and Sciences employs a more strongly consolidating policy, under which faculty members grant Harvard nonexclusive licenses to their scholarly articles, which the University may then make available to the public in an "open-access repository."<sup>399</sup> But in a nod to authorial autonomy, the policy is subject to waiver at faculty member request.

Funding entities can similarly promote coordinated licensing by specifying the terms under which funded research should be released. For example—in a policy that is currently facing legislative attack<sup>400</sup>—the National Institutes of Health now requires that "all investigators funded by the NIH submit or have submitted for them to the National Library of Medicine's PubMed Central an electronic version of their final, peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication."<sup>401</sup> Similarly, the European Research Council requires "that all peer-reviewed publications from ERC-funded research projects be deposited on publication into an appropriate research repository where available, such as PubMed

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<sup>395</sup> Wikipedia: Copyrights, *available at* <http://en.wikipedia.org/wiki/Wikipedia:Copyrights>.

<sup>396</sup> Wikipedia content will soon be available under a Creative Commons license as well. *See infra* note \_\_\_ and accompanying text.

<sup>397</sup> *See* Wikipedia: Copyrights, *available at* <http://en.wikipedia.org/wiki/Wikipedia:Copyrights> ("The Wikimedia Foundation does not own copyright on Wikipedia article texts and illustrations. It is therefore useless to email our contact addresses asking for permission to reproduce content. Permission to reproduce content under the license and technical conditions applicable to Wikipedia . . . has already been granted to everyone without request; for permission to use it outside these terms, one must contact all the volunteer authors of the text or illustration in question.").

<sup>398</sup> MIT OpenCourseWare FAQ: Intellectual Property, <http://ocw.mit.edu/OcwWeb/web/help/faq3/index.htm>.

<sup>399</sup> Harvard University Library Office for Scholarly Communication, Open-Access Policy in FAS, <http://hul.harvard.edu/osc/overview.html>.

<sup>400</sup> Fair Copyright in Research Works Act, H.R. 801, *available at* <http://hdl.loc.gov/loc.uscongress/legislation.111hr801>.

<sup>401</sup> National Institutes of Health, Revised Policy on Enhancing Public Access to Archived Publications Resulting from NIH-Funded Research, <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-033.html>.

Central, ArXiv or an institutional repository, and subsequently made Open Access within 6 months of publication.”<sup>402</sup>

One interesting question is how coordinating institutions should be structured to represent their members without giving each individual so much control as to defeat the transaction-cost savings of collective action.<sup>403</sup> Both Wikipedia and Facebook have recently experimented with member voting on potential license changes.<sup>404</sup> The law and practices of business organizations, home owners associations, and other institutions that streamline control in situations of atomistic ownership (even including the “English Stock” of the Stationers’ Company) may be fruitful sources of alternative solutions.<sup>405</sup>

Despite license coordination through institutions of various sorts, there are still problems of inter-community incompatibility.<sup>406</sup> As Rochelle Cooper Dreyfuss points out, “[a] problem with second order

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<sup>402</sup> European Research Council Guidelines for Open Access, [http://erc.europa.eu/pdf/ScC\\_Guidelines\\_Open\\_Access\\_revised\\_Dec07\\_FINAL.pdf](http://erc.europa.eu/pdf/ScC_Guidelines_Open_Access_revised_Dec07_FINAL.pdf).

<sup>403</sup> See generally Merges, *Locke for the Masses*, *supra* note \_\_\_, at 1188-89 (suggesting that “representative people or entities” can act on behalf of groups of dispersed creators and explaining that “[t]he most active contributors to interest group websites, or heads of informal user groups, would be good examples. The idea is not perfect representation, but rough and ready representation . . . . Only through this sort of mechanism can the group efforts of dispersed creators be translated into a legally functional entity.”).

<sup>404</sup> Regarding the recent vote among the Wikimedia community to make Wikimedia material available under a Creative Commons license as well as the GNU Free Documentation License, see Wikimedia, Licensing update, *available at* [http://meta.wikimedia.org/wiki/Licensing\\_update](http://meta.wikimedia.org/wiki/Licensing_update) (announcing vote); Wikipedia, Wikipedia: Licensing Update, *available at* [http://en.wikipedia.org/wiki/Wikipedia:Licensing\\_update](http://en.wikipedia.org/wiki/Wikipedia:Licensing_update) (announcing that “[a]s per the licensing update vote result and subsequent Wikimedia Foundation Board resolution, any content on Wikimedia Foundation projects currently available under GFDL 1.2 with the possibility of upgrading to a later version will be made available additionally under Creative Commons Attribution/Share-Alike 3.0 Unported.”).

Regarding the recent vote among Facebook users, who were asked to approve or disapprove of new governance principles, see Riva Richmond, *Facebook Tests the Power of Democracy*, N.Y. TIMES (Apr. 23, 2009), *available at* <http://gadgetwise.blogs.nytimes.com/2009/04/23/facebook-tests-the-power-of-democracy/?scp=6&sq=facebook%20vote&st=cse> (describing the vote and suggesting that it may be “a sign of more online democracy to come”); Jenna Wortham, *Facebookers Approve New Policy, but Still Hate Redesign*, N.Y. TIMES (Apr. 24, 2009), *available at* <http://bits.blogs.nytimes.com/2009/04/24/facebookers-approve-new-policy-still-hate-redesign/?scp=8&sq=facebook%20vote&st=cse> (reporting on the results and explaining that “[o]riginally, the company stipulated that it would require the participation of 30 percent of its community for the vote to be binding. That would have amounted to 60 million Facebookers casting their digital ballot. Although the actual turnout was considerably lower—less than 1 percent participated in the survey—the company said it would accept the results. Close to 75 percent of the participants who voted were in favor of the new terms of service.”).

<sup>405</sup> Thanks to Jill Fisch for helpful conversation on the relevance of these mechanisms for separating ownership from control. See generally Merges, *Locke for the Masses*, *supra* note \_\_\_, at 1188-89 (identifying ways in which “the legal system has figured out clever ways to identify, and in some sense construct or constitute, a single focal point entity to represent the larger group.” For example, “[t]he Board of Directors of a corporation can act for the entire group of shareholders.”).

<sup>406</sup> This is discussed in more detail in Van Houweling, *The New Servitudes*, *supra* note \_\_\_.

private solutions is that more than one entity can formulate them and there is little reason to believe that the formulations will be coordinated, or even consistent, with each other.”<sup>407</sup> And, indeed, license incompatibilities have made it difficult to combine Wikipedia entries with contributions to some other like-minded collaborative projects (although a recent move to “dual-license” Wikipedia under both the GPL FDL and Creative Commons terms may alleviate this particular difficulty).<sup>408</sup> License incompatibilities abound in the realm of educational resources as well.<sup>409</sup>

The compatibility problems encountered by various (proliferating and potentially incompatible) public licensing schemes could be solved by license standardization.<sup>410</sup> Several commentators have proposed this solution. For example, Robert Merges suggests that “the Copyright Act could be amended to provide a statutory ‘safe harbor’ capturing at least some of the attributes of GPL-type licenses. It would become available simply by following statutory notice provisions, such as affixing an “L in a circle” notice (for “Limited Copyright Claimed—Full Copyright Waived”).”<sup>411</sup> Technology that helps to both attach and parse various licenses may also eventually alleviate both confusion and incompatibility.<sup>412</sup>

*Summarizing solutions:* These two potential approaches to atomism—improved management of information relating to copyright ownership, and coordination of the terms under which individual copyright owners make their works available for reuse—hardly exhaust the possibilities. Other candidates include increasing reliance on liability rules that making negotiations over distributed and fragmented rights unnecessary,<sup>413</sup> shifting back toward an opt-in system that effectively limits copyright proliferation, and relying on voluntary under-enforcement by copyright owners. Or perhaps the

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<sup>407</sup> Dreyfuss, *supra* note \_\_\_, at 1189.

<sup>408</sup> See *supra* note \_\_\_ and accompanying text.

<sup>409</sup> See CCLearn, *supra* NOTE \_\_\_, at 13-14 (finding that the terms of licenses attached to “open” educational resources “are often incompatible with one another in a way that prevents combining materials from different providers” and recommending license standardization) See generally DANIEL E. ATKINS, ET AL., A REVIEW OF THE OPEN EDUCATIONAL RESOURCES (OER) MOVEMENT: ACHIEVEMENTS, CHALLENGES, AND NEW OPPORTUNITIES 27-28 (2007) (describing some of the intellectual property-related challenges faced by the open educational resources movement).

<sup>410</sup> See generally Merrill & Smith, *Optimal Standardization*, *supra* note \_\_\_, at 49-51 (arguing for superiority of government-supplied property standardization over privately supplied standardization).

<sup>411</sup> Merges, *A New Dynamism*, *supra* note \_\_\_, at 201-202 (observing that “no private initiative will ever quite match the ability of the statute to channel copyright owners into a uniform, widely understood standard practice”); see also James Gibson, Comments on *The New Servitudes*, available at <http://uchicagolaw.typepad.com/faculty/2008/02/jim-gibsons-com.html>.

<sup>412</sup> Cf. Merges, *Contracting Into Liability Rules*, *supra* note \_\_\_, at 1380 (observing that “new multimedia exchange mechanisms” have “an extra dimension compared to those of the past: rapid computerized exchange capabilities”); *id.* at 1381-82 (raising the possibility that decentralized technological exchange systems may arise in lieu of centralized institutions for exchange of intellectual property rights in the digital age).

<sup>413</sup> But see Merges, *Contracting into Liability Rules*, *supra* note \_\_\_.

solutions revealed by my historical survey could be modified to better serve and suit the contemporary copyright environment. A full consideration of these alternatives awaits future research—informed by this history’s demonstration of the costs of both atomism and holism.

*Conclusion:* It may be time for both copyright doctrine and practice to respond, as they have in the past, to changes in the balance of atomism’s costs and benefits. But the history I have surveyed suggests techniques for managing atomism that may be ineffective or inappropriate in today’s environment. From the Stationers’ Company, to the work-for-hire doctrine, to recent attempts to consolidate copyright ownership with heavy-handed terms of use, efforts to counteract the harmful effects of atomism have sacrificed authorial autonomy, competition, and free expression. The Internet age offers unprecedented potential for realizing these important values. The next task is to craft solutions to the challenges posed by atomistic copyright that do not squander this potential.