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Jessica Litman

University of Michigan Law School, jdlitman@umich.edu

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IMAGINARY BOTTLES¹

JESSICA LITMAN[†]

i.

In 1994, John Perry Barlow published *The Economy of Ideas* in WIRED magazine.² Subtitled “A Framework for patents and copyrights in the Digital Age (everything you know about intellectual property is wrong),” the article argued that commercializing copyrighted material in a digital age was akin to selling wine without bottles.

Barlow’s metaphor was startlingly apt. For more than 200 years, U.S. copyright law had defined the rights of both owners and users primarily by regulating the creation and distribution of the tangible objects in which copyrighted works were embodied.³ Networked digital technology enabled the promiscuous copying and broad distribution of works completely detached from tangible objects.

The enigma is this: if our property can be infinitely reproduced and instantaneously distributed all over the planet without cost, without our knowledge, without its even leaving our possession, how can we protect it?⁴

¹ This work is licensed under a Creative Commons Attribution-No Derivatives 4.0 International License (CC BY-ND 4.0).

[†] John F. Nickoll Professor of Law and Professor of Information, University of Michigan. Jon Weinberg made extremely helpful comments on earlier versions of this essay.

² John Perry Barlow, *The Economy of Ideas*, WIRED (Mar. 1, 1994), reprinted as *Selling Wine Without Bottles: The Economy of Mind on the Global Net*, 18 DUKE L. & TECH. REV. 8 (2019).

³ See, e.g., Ralph S. Brown, *Eligibility for Copyright Protection: A Search for Principled Standards*, 70 MINN. L. REV. 579, 581 (1986); L. Ray Patterson, *Copyright and the “Exclusive Right” of Authors*, 1 J. INTELL. PROP. L. 1, 33 (1993); R. Anthony Reese, *The First Sale Doctrine in the Era of Digital Networks*, 44 B.C. L. REV. 577, 583–610 (2003). As Barlow noted, the 20th century dissemination of works using the broadcast spectrum had also posed a wine-without-bottles problem, but most practical uses of broadcasting involved the creation of copies. Live television and radio programming received no copyright protection at all until the program was embodied in a tangible object. See 17 U.S.C. § 101, 102 (2012); Barlow, *supra* note 2, at 91, 18 DUKE L. & TECH. REV. at 19 (“[B]roadcast transmissions all lack the Constitutional requirement of fixation as a ‘writing.’”).

⁴ Barlow, *supra* note 2, at 85, 18 DUKE L. & TECH. REV. at 8 (as “[t]he riddle is this . . .”).

Barlow's answer was that we needed to reexamine our assumptions about the value and nature of the information that copyright law seeks to secure. Once that authorship was detached from its containers, it would no longer work to assume that container-centric regulation would treat it appropriately.

Some of Barlow's initial musings on the nature and value of information seem startlingly prescient 25 years later. His prediction that, in the near future, "information will be generated collaboratively by the cyber-tribal hunter-gatherers of Cyberspace,"⁵ was an eerily accurate description of Twitter. Barlow's suggestion that information itself was supplanting money as our dominant currency⁶ presaged a future ruled by Google, Facebook, and Amazon, three companies that derive much of their monetary value from trafficking in information. He proposed that we reconceptualize information in the networked digital environment as more akin to a living organism than a static package of knowledge. As a non-carbon-based life form, Barlow suggested, information evolves, spreads, and, over time, it spoils. It creates relationships and meaning. Some information's value depends on exclusivity; other information is worth more the more common it becomes.⁷

Legacy owners of intellectual property, he complained, were engaging in futile efforts to buttress the old, container-centric rules to enable them to stretch around the new reality. He predicted that the disconnect between traditional copyright law and digital technology would prove to be unbridgeable:

Intellectual property law cannot be patched, retrofitted, or expanded to contain digitized expression any more than real estate law might be revised to cover the allocation of broadcasting spectrum (which, in fact, rather resembles what is being attempted here). We will need to develop an entirely new set of methods as befits this entirely new set of circumstances.⁸

Twenty-five years later, though, it appears that Barlow might have underestimated the tenacity of legacy copyright owners. Despite significant missteps, bad bets, and massive investment in stupid initiatives, they seem to have emerged into a new world where, from their vantage

⁵ Barlow, *supra* note 2, at 90, 18 DUKE L. & TECH. REV. at 19.

⁶ See Barlow, *supra* note 2, at 127, 18 DUKE L. & TECH. REV. at 24 ("[Information] may become the dominant form of human trade.").

⁷ See Barlow, *supra* note 2, at 89–90, 126–27, 18 DUKE L. & TECH. REV. at 19–21.

⁸ Barlow, *supra* note 2, at 85, 18 DUKE L. & TECH. REV. at 9.

point, the copyright rules are startlingly similar to the rules that governed the old world, only better.

ii.

Initially, copyright owners relied on a combination of two strategies. First, they put their hopes in what Barlow described as “crypto bottling.”⁹ Second, they backed up that plan with hefty helpings of relentless litigation. In the 1990s, many lobbyists for legacy copyright businesses insisted that, although consumers might enjoy content created by amateurs if it were free, the only good reason for a consumer to pay for Internet access would be to enjoy commercially-produced entertainment and information products. It followed that one could make a profit from providing Internet access by selling subscriptions to consumers eager for that content. If copyright owners could prevent consumers from gaining unlicensed access or making unlicensed copies, they'd be able to charge them lots of money for licensed access. They figured that devising a technological system to prevent unauthorized access or use was just around the corner, and if hacking technological protection were unlawful, that would effectively deter folks from piracy.

Copyright lobbyists persuaded Congress to protect copyright on the Internet by enacting a law that made it illegal to circumvent copy protection technology for any reason.¹⁰ Then, they sat back and waited impatiently for software engineers to invent technology that could encase copyrighted works in impregnable containers of encryption code. And waited. Meanwhile, they delayed making their works available online. While they were waiting, they sued upstart businesses that dared to offer music or video over the Internet, or even to help consumers do it themselves.¹¹ Book publishers, movie studios and record labels were reluctant to launch less-secure offerings, and wary of cannibalizing their

⁹ See Barlow, *supra* note 2, at 129, 18 DUKE L. & TECH. REV. at 28.

¹⁰ See generally Digital Millennium Copyright Act, Pub. L. 105-304, 112 Stat. 2860 (1998).

¹¹ See, e.g., MGM v. Grokster, 545 U.S. 913 (2005); UMG Recordings v. Shelter Capital Partners, 667 F.3d 1022 (9th Cir. 2011); Arista Records, L.L.C. v. Launch Media, Inc., 578 F.3d 148 (2d Cir. 2009); A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004 (9th Cir. 2001); Warner Bros. Entm't v. WTV Sys., 824 F. Supp. 2d 1003 (C.D. Cal. 2011); UMG Recordings, Inc. v. Hummer-Winblad, 377 F. Supp. 2d 796 (C.D. Cal. 2005); Random House, Inc. v. Rosetta Books L.L.C., 150 F. Supp. 2d 613 (S.D.N.Y. 2001), *aff'd*, 283 F.3d 490 (2d Cir. 2002); UMG Recordings v. MP3.com, 92 F. Supp. 2d 349 (S.D.N.Y. 2000); Twentieth Century Fox Film Corp. v. iCraveTV, 53 U.S.P.Q. 2d 1831 (W.D. Pa. 2000).

existing bricks-and-mortar business models.¹² When they finally made their works available over digital networks, they offered pallid and overpriced digital services with terrible user interfaces, often constrained by extremely buggy and annoying digital rights management technology.¹³ So, there was a bunch of pent-up demand and no real competition when a few well-capitalized businesses decided it was worth the litigation risk to enter the digital market with offerings of their own. Apple, Amazon, and Google soon became providers of online music, books, and video. They were willing to defend expensive lawsuits, and faced very little competition. Soon, all three had become obligatory partners for content owners hoping to distribute their works online. Online platforms figured out that they could make more money by selling eyeballs to advertisers than they could by selling movies to viewers or music to listeners. Apple, Amazon, and Google then proceeded to become impossibly wealthy.¹⁴

Copyright owners resent that. They've coined the term “value gap” to describe the injustice of the fact that platforms have too much bargaining power and can therefore shape the terms of copyright licenses to call for lower royalty payments than copyright owners believe they ought to pay.¹⁵ It isn't that platforms don't purchase licenses for the copyrighted content that appears on their services—they do. Because of their market dominance, though, they have the upper hand in negotiations and can insist on paying lower royalties than copyright owners believe would be fair. Given how much money the big online platforms are raking in, copyright owners figure they ought to be sharing a bigger piece of it.¹⁶

Of course, we know now that all of the assumptions underlying the impenetrable crypto-bottle strategy were misguided. There was never going to be an impregnable crypto-bottle.¹⁷ The electronic game industry has managed to make good-enough encryption work, but for owners of

¹² See, e.g., ANDREW ALBANESE, *THE BATTLE OF \$9.99* (2013).

¹³ See Jessica Litman, *Antibiotic Resistance*, 30 *CARDOZO ARTS & ENT. L.J.* 53, 53–58 (2012).

¹⁴ See *id.* at 58–66.

¹⁵ See American Assoc. of Independent Music et al., Joint Comments before the US Copyright Office *in re* Section 512 Study, No. 2015-7 (Apr. 1, 2016), <https://www.regulations.gov/document?D=COLC-2015-0013-89806>; Warner Music Group, Comments before the US Copyright Office *in re* Section 512 Study, No. 2015-7 (Mar. 31, 2016), <https://www.regulations.gov/document?D=COLC-2015-0013-86022>.

¹⁶ See Jessica Litman, *What We Don't See When We See Copyright as Property*, 77 *CAMBRIDGE L.J.* 536, 537–42 (2018).

¹⁷ See CORY DOCTOROW, *INFORMATION DOESN'T WANT TO BE FREE: LAWS FOR THE INTERNET AGE* (2014).

copyrights in other works, the legal prohibition on hacking copy-protection technology has been a bust.¹⁸ The additional deterrent effect of making it illegal to circumvent digital rights management turned out to be negligible. Moreover, the prohibition is so broadly worded that it seems to forbid an independent mechanic from fixing any car containing software,¹⁹ so people tend not to believe that the behavior it prohibits is unlawful. Anyone can find easy-to-follow circumvention instructions in respectable newspapers and online magazines; circumvention software is ubiquitous.²⁰ Several major media companies have decided not to bother with digital rights management protection at all, since it costs them something to encode every copy, and that encoding doesn't in fact provide meaningful protection.

As the crypto-bottle strategy failed, though, copyright owners stumbled into a second tactic that has been far more effective. The key to this approach was a breathtakingly expansive reinterpretation of the exclusive right to reproduce a work in copies, predicated on a very broad definition of “copy.”²¹ Fans of this new understanding maintain that whenever a work appears in the working memory of any computer anywhere, an actionable copy has been made, in violation of the statutory reproduction right.²² By insisting, again and again, that the word “copy” had long been understood in this broader sense, and by behaving as if they were right about that, copyright owners were able to persuade some courts that the copyright law, if properly interpreted, afforded them extensive

¹⁸ See Jessica Litman, *Real Copyright Reform*, 96 IOWA L. REV. 1, 32–33 (2010).

¹⁹ See Library of Congress, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 83 Fed. Reg. 54010, 54021–23 (Oct. 26, 2018) (discussing proposed exemption “allowing for circumvention of access controls controlling the functioning of motorized land vehicles for purposes of diagnosis, repair, or lawful modification of a vehicle”).

²⁰ See, e.g., Catherine Ellis, *The Best Free DVD Copier 2019*, TECHRADAR (Feb. 11, 2019), <https://www.techradar.com/best/the-best-free-dvd-copier>; Kirk McElhearn, *How To Rip DVDs and Blu-Ray Discs with Make MKV and Handbrake*, MACWORLD (Mar. 13, 2017), <https://www.macworld.com/article/3179350/how-to-rip-dvds-and-blu-ray-discs-with-makemkv-and-handbrake.html>; *MacTheRipper*, GUSTAVUS ADOPHUS COLLEGE, https://gustavus.edu/gts/Mac_the_Ripper (last visited Mar. 6, 2019).

²¹ See Jessica Litman, *Fetishizing Copies*, in RUTH OKEDIJI, COPYRIGHT IN AN AGE OF LIMITATIONS AND EXCEPTIONS 107 (2017).

²² See, e.g., *Digital Millennium Copyright Act Section 104 Report: Hearing Before the Subcomm. on Courts of the House Comm. on the Judiciary*, 107th Cong. 96–112 (2002) (testimony of Emery Simon, Business Software Alliance); see generally Aaron Perzanowski, *Fixing RAM Copies*, 104 NW. U. L. REV. 1067 (2010).

rights to control any appearance of their works over digital networks.

The new definition requires some mental gymnastics for readers who pay attention to statutory language. The copyright statute has, since 1976, defined “copies” as “material objects . . . in which a work is fixed.”²³ Congress hasn’t revised that definition, and copyright owners haven’t asked Congress to do so. Being attached to a material object, though, is precisely the characteristic that Barlow argued that digital files lack. The modern revisionist interpretation expands the understanding of a “copy” beyond the idea of a tangible material object to include temporary and ephemeral instantiations. Essentially, it reads the words “material objects” out of the statutory definition.²⁴

Over the past 20 years, this expanded meaning of “copy” has ceased to be seen as radical.²⁵ That has allowed copyright owners to sell their wine in what I would call make-believe bottles. Like the digital instantiations of the works, these imaginary bottles are not tangible. That lack has turned out to carry with it unexpected advantages for rights holders. Because the bottles are made-up creations, copyright owners can imbue them with whatever characteristics they fancy. By encoding

²³ 17 U.S.C. § 101 (2012).

²⁴ Most defenses of the expanded conception of “copy” focus only on the wording of the definition of “fixation,” which imposes the additional requirement that the work’s instantiation in a material object must be “sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.” 17 U.S.C. § 101. *See, e.g., Digital Millennium Copyright Act Section 104 Report: Hearing Before the Subcomm. on Courts of the House Comm. on the Judiciary, 104th Cong. (Dec. 12 & 13, 2001) [hereinafter Section 104 Hearing]* (statement of Marybeth Peters, Register of Copyrights). They assume that since computers and computer memory chips are themselves material objects, any time expression occupies a memory chip for a period of more than transitory duration, a copy has been made. Proponents of the view that RAM copies infringe copyrights argue that as long as the computer or other machine is on—and it could be on indefinitely—a copy of the copyrighted work stored there can be perceived or reproduced, thereby satisfying the “more than transitory duration” standard. By that logic, a broadcast tower is a material object, an unrecorded live television broadcast would therefore necessarily result in a copy, and Congress’s conclusion that it did not must have been mistaken. *See Pamela Samuelson, Legally Speaking: The NII Intellectual Property Report, COMM. ACM, Dec. 1994, at 21, 23 (“[H]olding a mirror up to a book would be infringement because the book’s image could be perceived there for more than transitory duration.”).*

²⁵ *See, e.g., DEP’T OF COMMERCE INTERNET POLICY TASK FORCE, COPYRIGHT, CREATIVITY AND INNOVATION IN THE DIGITAL ECONOMY 12 (2013).*

restrictions in the terms of an end user license agreement, distributors of copyrighted works have succeeded in limiting the uses consumers are permitted to make of lawful copies of copyrighted works.²⁶ It has become conventional for copyright owners to insist that digital copies are “licensed,” not “sold,” even in transactions that are expressly denominated as sales.²⁷ Because the terms of the license may permit or forbid any encounter with the work that results in a digital copy, the licensor is entitled to subject the purchaser’s use to whatever conditions it chooses to impose. In particular, copyright owners have insisted that their make-believe bottles are not subject to the first sale doctrine, and the purchasers of those bottles may not pass them on to new owners.²⁸ That’s a neat trick: a digital file may be a copy for the purpose of infringement liability but not a copy for the purpose of transferring ownership.

Copyright owners have even persuaded some courts that their entitlement to denominate transactions as licenses rather than sales also permits them to characterize transfers of physical media containing copyrighted works as licenses of the material objects that may preclude the purchaser from transferring the material object.²⁹

²⁶ The topic of the use of end user license agreements to negate user’s rights under copyright law is much too involved and important for this short essay. Peggy Radin and Aaron Perzanowski and Jason Schultz have published excellent books with masterful discussions of the ramifications. *See* AARON PERZANOWSKI & JASON SHULTZ, *THE END OF OWNERSHIP* (2016); MARGARET JANE RADIN, *BOILERPLATE* (2012).

²⁷ *See, e.g.,* Cory Doctorow, *Even Amazon Can’t Keep Its EULA Story Straight*, *BOING BOING* (Jan. 12, 2010), <https://boingboing.net/2010/01/12/even-amazon-cant-kee.html>.

²⁸ *See, e.g., First Sale Doctrine*, COPYRIGHT ALLIANCE, <https://copyrightalliance.org/policy/position-papers/first-sale-doctrine/> (last visited Mar. 6, 2019); *Amici Curiae Brief of Motion Picture Ass’n of America & Recording Industry Ass’n of America at 7–9*, *Capitol Records v. Redigi*, 910 F.3d 649 (2d Cir. 2018) (No. 16-2321), <https://copyrightalliance.org/wp-content/uploads/2017/05/ReDigi-RIAA-Amicus-Brief.pdf>; *see generally First Sale Under Title 17: Hearing Before the Subcomm. on Courts of the H. Judiciary Comm.*, 114th Cong. (June 2, 2014), <https://docs.house.gov/meetings/JU/JU03/20140602/102290/HHRG-113-JU03-Transcript-20140602.pdf>.

²⁹ *Compare Vernor v. Autodesk*, 621 F.3d 1103 (9th Cir. 2010), *with UMG Recordings v. Augusto*, 628 F.3d 1175 (9th Cir. 2011). In *Disney Enterprises v. Redbox Automated Retail*, Disney claimed that language on the outside of its boxed blu-ray disk, DVD, and digital download code combo packs that said “codes are not for sale or transfer” and “this product . . . cannot be sold or rented individually,” bound purchasers of the combo packs. Redbox purchased combo packs and sold the three components separately. Disney claimed that a consumer who purchased a download code from Redbox infringed its copyright when she

Twenty years ago, proponents of the broad reconstruction of “copy” argued that the expansive understanding was an essential tool to prevent digital piracy, but acknowledged that the law should find some way to allow temporary digital copies that were incidental to legitimate uses.³⁰ Today, the fact that an otherwise legitimate use requires the creation of a unauthorized digital copy is itself enough to make the use illegitimate.³¹

iii.

In 2019, then, make-believe copyright bottles have given copyright owners more legal control over uses of their works than they enjoyed under the old-fangled bricks-and-mortar law. That enhanced legal control hasn’t necessarily translated into actual control, but the businesses that call themselves the “core copyright industries” report that they are earning more money than ever,³² so things seem to be working out okay for them so far.

Was Barlow wrong about the intellectual property crisis? He predicted in 1994 that the extant system of IP law would fall under its own weight:

It’s fairly paradigm warping to look at information through fresh eyes
—to see how very little it is like pig iron or pork bellies, and to

or he downloaded the movie, and that Redbox should be held liable as a contributory infringer. The court initially ruled that the language did not create an enforceable contract, both because it didn’t indicate that opening the box would constitute assent and because the purported prohibition on transfer of BluRay discs and DVDs sought to impose an unenforceable condition in contravention of the first sale doctrine in section 109. Indeed, the district court concluded that the overreaching terms of the purported license should be considered copyright misuse. *See Disney Enters. v. Redbox Automated Retail*, No. CV 17-08655 DDP (AGRx), 2018 U.S. Dist. Lexis 61903 (C.D. Cal. Feb. 20, 2018). Disney revised the language to give purchasers clearer notice on the outside of the combo pack box and added lengthy terms and conditions to its digital download site. The court agreed that Disney could now succeed on its claim that Redbox encouraged its customers to infringe Disney’s copyrights by using the digital download, and entered a preliminary injunction. *See Disney Enters. v. Redbox Automated Retail*, 336 F. Supp 3d 1146 (C.D. Cal. 2018).

³⁰ *See, e.g.*, Section 104 Hearing, *supra* note 24 (statement of Mary Beth Peters, Register of Copyrights); *see also* U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REP. 106-48 (Aug. 2001).

³¹ *See Capitol Records v. Redigi*, 910 F.3d 649 (2d Cir. 2018).

³² *See* STEPHEN E. SIWEK, COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 2018 REPORT (2018), <https://pmcdeadline2.files.wordpress.com/2018/12/copyright-industry-report-wm.pdf>.

imagine the tottering travesties of case law we will stack up if we go on legally treating it as though it were.

As I've said, I believe these towers of outmoded boilerplate will be a smoking heap sometime in the next decade, and we mind miners will have no choice but to cast our lot with new systems that work.³³

That didn't happen, or, at least, it didn't happen in that way or in that time frame. Most of what was idiotic and counterproductive about the ways that copyright law worked in 1994 is still idiotic and counterproductive in 2019. If the purpose of copyright law is to compensate creators for the products of their minds,³⁴ it hasn't yet come close to achieving that goal.³⁵ Oodles of money flood into the copyright system. Most of that money is siphoned off before it reaches creators' pockets, and where and why the money goes where it goes is kept a closely guarded secret.³⁶ Creators across a wide swathe of fields complain of a shocking lack of transparency. Proposals to replace the current system with "new systems that work" have so far failed to attract enough support to make them feasible.

Yet Barlow's musings about the organic and volatile nature of information remain compelling; they seem even truer today than they seemed 25 years ago. Remove information from its containers and it spills. Spills spread. As different individual creators and researchers discover closely-held details of how money and rights move through the copyright system,³⁷ that knowledge may itself transform the ways that copyright owners do business. Recent statutory amendments include

³³ Barlow, *supra* note 2, at 127, 18 DUKE L. & TECH. REV. at 24.

³⁴ See Barlow, *supra* note 2, at 85, 18 DUKE L. & TECH. REV. at 8.

³⁵ I've discussed this problem elsewhere. See Litman, *supra* note 16, at 539–50; Litman, *supra* note 18, at 8–12.

³⁶ See, e.g., Peter C. DiCola & David Touve, *Licensing in the Shadow of Copyright*, 17 STAN. TECH. L. REV. 397 (2014); Eriq Gardner, *Fox Rocked by \$179M 'Bones' Ruling: Lying, Cheating and "Reprehensible" Studio Fraud*, HOLLYWOOD REP. (Feb. 27, 2019), <https://www.hollywoodreporter.com/thr-esq/fox-rocked-by-179-million-bones-ruling-lying-cheating-reprehensible-studio-fraud-1190346>; Eriq Gardner, *'Walking Dead' Producers Say AMC Won't Explain Basis for Denying Hundreds of Millions in Profits*, HOLLYWOOD REP. (Mar. 6, 2019), <https://www.hollywoodreporter.com/thr-esq/walking-dead-producers-say-amc-wont-explain-basis-denying-hundreds-millions-profits-1192470>.

³⁷ See, e.g., Zoe Keating, *Another Year*, TUMBLR, <http://zoekeating.tumblr.com/post/181269142164/another-year> (last visited Mar. 9, 2019); Daniel Sanchez, *What Spotify Paid One Artist in 2018*, DIGITAL MUSIC NEWS (Dec. 19, 2018), <https://www.digitalmusicnews.com/2018/12/19/zoe-keating-spotify-2018-payout/>.

provisions designed to encourage music and sound recording rights holders to disclose more data about the works they control;³⁸ secrets revealed as a result of publicized legal disputes have shone light on the ways that some rights-holders conceal facts about their earnings and payment.³⁹ Even if the heavily fortified legacy copyright system fails to crumble under its own weight, a flood of newly revealed information may enable the rest of us to piece together a truer picture of where and how the system is failing, and what interventions might help creators to wrest back some control, or at least some money, from the legacy rights holders seeking to preserve the old regime.

³⁸ See Hatch-Goodlatte Music Modernization Act, Pub. L. No. 115-264 (2018). Cynics suggest that the incentives in the new law will not suffice to persuade major music publishers and labels to give up their secrets.

³⁹ See, e.g., *Twentieth Century Fox Film Corp. v. Wark Ent., Inc.*, Amended Final Award, No. 1220052735 (JAMS Feb. 20, 2019) (Liu, Arb.), <https://pmcdeadline2.files.wordpress.com/2019/02/final-amended-award-redactions.pdf>.