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Innovative Deviance: A Theoretical Framework Emerging at the Intersection of Copyright Law and Technological Change

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Abstract

This paper explores the relationship between emerging technology-enabled behaviors and established copyright law in the United States. Challenges implicated by recent technological developments have given rise to a consensus among policy-makers, scholars, public interest advocates, and various other stakeholders that copyright reforms are needed. Debates over what shape the potential reforms ought to take have been strident, unrelenting, and seemingly paralyzing to the cause. Meanwhile, courts have continued to adjudicate cases testing the balance between existing copyright doctrines and new methods of creating, managing, and sharing protected works. The paper describes a recent exemplar involving mass digitization, *Authors Guild v. HathiTrust*, and critically reflects upon the courts' fair use analyses before articulating an emerging theoretical framework for understanding and explaining the intersection of copyright law and technological change based on the sociological concept of innovative deviance.

Keywords: information policy, copyright law, mass digitization, innovative deviance

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Since the enactment of the Statute of Anne over three centuries ago, copyright laws have struggled to maintain functionality, credibility, and relevance in the face of technological change. Although its grant is limited to "original works of authorship" and technological inventions and other useful articles are expressly excluded from its purview (17 U.S.C. §102), copyright law is nevertheless implicated in the ways we design and implement technologies to create, interact with, and share the cultural and intellectual works it is intended to foster. While copyright law provides a regulatory framework intended to stimulate the progress of science and the useful arts (U.S. Const. art. I, § 8, cl. 8), a more realistic assessment might suggest that the true, unacknowledged legislators of the world are technologists (P. Duguid (personal communication, Jan. 16, 2014) citing Shelley, 1890, p. 46). How might we better understand the complex, often murky, relationship between copyright law and technological change? And how should courts and lawmakers respond to technology-enabled behaviors that seem both socially beneficial and infringing under existing law?

This research contemplates tensions arising at the intersection of copyright law and technological change and envisions an emerging theoretical framework based upon sociological theories of deviance. Beginning with some general observations on the relationship between copyright law and new technologies, the introduction identifies and describes some of the key policy challenges in this area. Section two considers judicial applications and adaptations of existing fair use doctrine to emerging, arguably deviant, technology-enabled copyright-related behavior leading to an in-depth discussion of an exemplar, HathiTrust's mass digitization project. Finally, section three engages sociological literature on technological change and deviance and begins to articulate a theoretical framework for re-conceptualizing the interplay between copyright law and emerging technology based upon social disorganization theory and Robert Merton's concept of innovative deviance. By offering a glimpse into the phenomenon via this new lens, this research hopes to deepen understandings of the relationship between copyright law and technological innovation, and enrich existing discourse on this topic, particularly with respect to mass digitization.

1 Introduction

Under U.S. law, copyright is a creature of the state, "not an inevitable, divine, or natural right that confers on authors the absolute ownership of their creations. It is designed rather to stimulate activity and progress in the arts for the intellectual enrichment of the public" by granting authors a limited monopoly over their original creations. (Leval, 1990, p.1107) The philosophical underpinnings of the current system are thus based on the utilitarian tenet of maximizing net social welfare. (Fisher, 2001; Merges, 2011)

Copyright's means-end formulation, which presupposes that people may be disinclined to create or innovate unless rewarded with a concomitant right to exploit the fruits of their labor, has deep historical roots. For example, we see precursors as far back as the *Leviathan* (1651) where, in laying out his social contract theory, Hobbes famously argued that "there is no place for industry" in a lawless world "because the fruit thereof is uncertain: and consequently no Culture of the Earth; ... no account of Time; no Arts; no Letters; no Society." (Hobbes & Tuck, 1996, p. 89) A few short decades later, England enacted the world's first copyright law, commonly called "The Statute of Anne" (1710), and it too was based on an essentially identical premise, plainly evident from its official title: "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."

Implicit in the law's means-end formulation, however, is the assumption that methods of reproduction and dissemination are costly. While this may have been the case in centuries or decades past, the premise no longer holds true. Technological developments including the advent of the Internet, the creation of technical protocols and standards, and improvements in digitization now enable content to be moved rapidly, at relatively low cost, and without significant degradation. Changes in information technology have consequently altered copyright-related behaviors and norms in fundamental ways. New methods of creating, organizing, managing, disseminating, and engaging with existing works have emerged. As these behaviors increasingly supplant traditionally sanctioned means of creation and innovation, questions and concerns arise regarding the propriety and lawfulness of emerging behaviors as well as the existing copyright regime's ability to effectively regulate them amidst rapid technological change. (National Research Council, 2013)

Recent developments in information technology abet a miscalibration of the law made manifest through the new, often transgressive, copyright-related behaviors they enable; this miscalibration has, in turn, generated a flurry of interest in copyright reform. Maria Pallante, the Register of Copyrights, recently observed: "The copyright world, which once had predictable and even pristine demarcations, has morphed dramatically" as a result of recent technological developments and, on this basis, "some recalibrations" of the existing legal framework may be required (2012(a), p. 339; 2012(b)). In last few years the Copyright Office has solicited requests for comment, held roundtables, and released reports on a range of issues including, for example, the copyright implications of mass digitization (U.S. Copyright Office, 2011). Additionally, in 2013, the Department of Commerce's Internet Policy Task Force released a report on *Copyright Policy, Creativity, and Innovation in the Digital Economy* and the National Research Council released a report on *Copyright in the Digital Era: Building Evidence for Policy*. In 2014, the Berkeley Center for Law and Technology hosted "The Next Great Copyright Act," a symposium at which Pallante delivered a keynote calling for comprehensive copyright reform. Consensus is building among academics, policy-makers, and stakeholders that legal reforms are a necessary response to recent technological changes.

Despite consensus that reforms are needed, there is much disagreement around what shape potential reforms should take. Rights holders and their advocates characterize copyright's miscalibration as under-restrictive and complain that existing laws fail to effectively prohibit a host of activities which seem neither to respect the limited monopoly of rights holders nor stimulate artistic creativity for the common good. Readers, users, and public interest advocates on the other hand characterize the miscalibration as over-restrictive and argue that existing laws prohibit behaviors that promote the purpose of copyright at little to no observable detriment to rights holders. Innovative technologists are concerned that intellectual, creative, and technological potential might be unnecessarily restricted by hidebound copyright laws seemingly bent on over-rewarding the incumbent beneficiaries of a prior technical regime at the expense of new-comers. Members of established industries meanwhile caution that the law's miscalibration introduces uncertainty into the system of cultural production, consumption, and participation, making it difficult for stakeholders to assess risks and make sound economic decisions.

The numerous and vociferous participants in current copyright policy debates have done little to help elucidate a policy solution for the challenges posed by recent technological developments. In fact, the current discourse, plagued by partisan discord, may be undermining the possibility of finding a solution more than facilitating it: "[T]hese disruptive changes have given rise to a strident debate" in the public discourse around copyright reform, characterized by "rhetorical excess," a "climate of recrimination," and "an unwillingness to engage in rational discourse" over copyright law's proper scope and role with respect to technological innovation and creative expression. (Samuelson, 2010; National Research Council, 2013) Compounding the problem, the debate is poorly informed by independent empirical research: "Instead of asking, 'What is the research-based evidence?' partisans tend to rely on claims of and evidence marshaled by stakeholders." (National Research Council, 2013, p. 2) This tactic

has been described by one commentator as “stirring up moral panics” intended to short-circuit critical thinking on copyright issues and undermine participants’ ability to identify and evaluate the real issues at stake in copyright policy debates over new technologies and emerging copyright-related behaviors. (Patry, 2009)

While comprehensive copyright reform of the kind advocated by Pallante and others may be stymied by the unrelenting tumult of copyright policy debates, courts continue to consider and adjudicate disputes in this area. The following section explores one particular collision involving copyright and technological change and considers the promise and challenges of judicial recalibration of copyright law by stretching an existing doctrine, fair use, to fit the contours of an emerging technology-enabled behavior, mass digitization.

2 Fair Use and HathiTrust’s Mass Digitization Project (“MDP”)

2.1 Existing Fair Use Doctrine

The doctrine of fair use serves as an important limitation on an author’s exclusive rights by allowing “the public to draw upon copyrighted materials without the permission of the copyright holder in certain circumstances” (*Authors Guild, Inc. v. HathiTrust*, 755 F.3d at 95 (2nd Cir. 2014)). As the Supreme Court commented, fair use is essential to the Act’s overriding goal:

“From the infancy of copyright protection, some opportunity for fair use of copyrighted materials has been thought necessary to fulfill copyright’s very purpose, ‘[t]o promote the Progress of Science and useful Arts ...’” (*Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. at 574 (1994)).

Fair use requires a court to weigh together four nonexclusive factors in assessing whether a particular use is fair (17 U.S.C. §107): (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work, including whether it is primarily creative or instructive (which copyright tends to value and seek to foster) or primarily factual (in which the law of fair use recognizes a greater need to disseminate); (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole, including whether the secondary use employed no more than was necessary to effectuate any valid purpose under the first factor; and (4) the effect of the use upon the market for or value of the copyrighted work.

Some examples of fair use arising from prior litigation include:

- Book reviewers and biographers quoting from an original work in order to illustrate a point and substantiate criticism (*Folsom v. Marsh*, 9 F Cas. 342, 344 (C.C.D. Mass 1841); *Wright v. Warner Books, Inc.*, 953 F. 2d 731 (2nd Cir. 1991));
- Artists using copyrighted photographs in a new work that uses a fundamentally different artistic approach, aesthetic, and character from the original (*Cariou v. Prince*, 714 F.3d 694, 706 (2nd Cir. 2013));
- Internet search engines displaying low-resolution thumbnails of copyrighted images in order to direct users to the website hosting the original (*Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1165 (9th Cir. 2007); *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818-822 (9th Cir. 2002));
- Viewers recording a television broadcast for later viewing (*Sony Corp. of Am. V. Universal City Studios, Inc.*, 464 U.S. 417, 447-450 (1984));
- Competitor copying protected software for purposes of reverse engineering (*Sony Comp. Entertainment, Inc. v. Connectix Corp.*, 203 F.3d 596, 599-601 (2000));
- Company digitizing unaltered student essays for use in connection with plagiarism detection software (*A.V. ex rel. Vanderhye v. iParadigms, LLC*, 562 F.3d 630, 639-640 (2009)).

Driven by a concern that fair use cases were too often “adjudicated upon ad hoc perceptions of justice without a permanent framework,” Judge Pierre Leval first proposed “transformation” as a cogent governing principle for fair use determinations in his seminal article, *Toward a Fair Use Standard* (1990). The landmark case, *Campbell v. Acuff-Rose Music, Inc.* (1994), was the first time the Supreme Court applied a transformation analysis to a fair use determination and, since that decision, courts have increasingly focused on whether the purpose and character of a secondary use is transformative:

“A use is transformative if it does something more than repackage or republish the original copyrighted work. The inquiry is whether the work ‘adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message ...’” (*Authors Guild, Inc. v. HathiTrust*, 2014, p. 96 quoting *Campbell v. Acuff-Rose*, 1994, p. 579 citing *Leval*, 1990, p. 1111).

2.2 Description of the Mass Digitization Project (“MDP”)

Beginning in 2004, several major research libraries agreed to allow Google to digitally copy books in their collections as part of Google’s Library Project, one piece of the larger Google Books Project. The specific terms of the agreements varied by institution and most remain cloaked under conditions of confidentiality however, based on Google’s agreement with the University of Michigan¹, made public under that state’s freedom of information laws, we know Google scanned that library’s books, gave the library a digital copy (consisting of both an image file and text file), and retained an identical digital copy for inclusion in its own searchable electronic database (*UM-Google cooperative agreement*, 2004). As a result of significant technical advances in optical character recognition, indexing, and search algorithm design, Google generated high-quality machine-readable, fully indexed and searchable texts from print materials at a scale previously unmatched. The Library Project also signaled an important re-contextualization of the role of academic research libraries with respect to the ways in which cultural and intellectual works are managed, organized, and shared, experienced, studied, and understood.

In 2008, thirteen universities launched HathiTrust, a partnership united around the common goal of ensuring that the cultural record (primarily vis-à-vis the Google scans) is preserved and accessible. As of January 1st, 2015, the HathiTrust Digital Library (“HDL”) has over 100 partner institutions and a corpus of over 13 million volumes. 38% of HDL’s total volumes are known to be in the public domain and digital copies of these works are made available to HathiTrust members and visitors to the HDL website. HathiTrust treats the remaining more than 8 million in-copyright volumes differently (<http://www.hathitrust.org>).

HathiTrust permits three uses of the copyrighted works in the HDL. First, all visitors to the HDL website are allowed to conduct full-text searches of the entire corpus. If a work is in-copyright and the copyright holder has not authorized broader use, the search results show only the page numbers containing the search term and its frequency per page. Unlike Google’s service, HDL does not display any text or “snippets” from the underlying copyrighted work. Second, HathiTrust member institutions can opt-in to HDL’s enhanced access for patrons with certified print disabilities which makes the entire corpus (public domain and in-copyright works) readable via adaptive technologies. Third, HathiTrust permits members to create a replacement copy of a work for purposes of preservation in accordance with §108 of the Act (*Authors Guild, Inc. v. HathiTrust*, 902 F.Supp.2d 445, 458 (Dist. Court, S.D.N.Y. 2012)).

2.3 *Authors Guild, Inc. v. HathiTrust*

In September, 2011, twenty authors and authors’ associations (“Authors Guild”) sued HathiTrust, Cornell University, and the presidents of the Universities of Michigan, California, Wisconsin, and Indiana University (“HathiTrust”) for copyright infringement, asserting that the systematic digitization of copyrighted materials without authorization violates authors’ exclusive rights. (17 U.S.C. §106) HathiTrust conceded that the Authors Guild established a *prima facie* case of infringement with respect to certain works but defended its activities on the basis of fair use.

2.3.1 District Court decision

The district court ruled in HathiTrust’s favor, finding that the three uses HathiTrust permitted with respect to the HDL were transformative fair uses. The court’s rationale was primarily motivated by “the goal of copyright itself, whether ‘promoting the Progress of Science and useful Arts would be better served by allowing the use than by preventing it’” (*Authors Guild, Inc. v. HathiTrust*, 2012). After acknowledging that central purpose of the transformative use analysis is to determine “whether the new work merely supersede[s] the objects of the original creation ... or instead adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message” the court concluded HathiTrust’s uses were transformative “because the copies serve an entirely different purpose than the originals” citing HDL’s full-text search’s enabling of “new methods of academic inquiry such as text mining” as an example (*Authors Guild v. HathiTrust*, 2012, p. 459-460).

¹ University of Michigan was one of the original “Google Five” partner institutions in the Library Project and was the lead architect of HathiTrust.

The district court's fair use analysis ends on a somewhat unusual note, transitioning from the dispassionate and impartial rhetoric characteristic of most court opinions to Judge Baer's personal, almost confessional, reflections on the case:

"Although I recognize that the facts here may on some levels be *without precedent*, I am convinced that they fall safely within the protection of fair use (...). I cannot imagine a definition of fair use that would not encompass the transformative uses made by Defendants' MDP *and would require that I terminate this invaluable contribution to the progress of science and cultivation of the arts* that at the same time effectuates the ideals espoused by the ADA" (*Authors Guild v. HathiTrust*, 2012, p. at 464) [emphasis added].

2.3.2 Circuit Court decision

The Authors Guild appealed and the second circuit affirmed the district court's holding with respect to full-text search and improved access for print-disabled individuals; they were deemed fair uses. (The court vacated the lower court's holding with respect to preservation because it found that the Authors Guild lacked standing to bring the claim (*Authors Guild v. HathiTrust*, 2014, p. 104)). Despite reaching the same ultimate result with regard to the HDL's full-text search, the court disagreed with the lower court's transformation analysis:

"Contrary to what the district court implied, a use does not become transformative by making an 'invaluable contribution to the progress of science and cultivation of the arts.' Added value or utility is not the test: a transformative work is one that serves a new and different function from the original work and is not a substitute for it" (*Authors Guild v. HathiTrust*, 2014, p. 96 quoting *Authors Guild v. HathiTrust*, 2012, p. 464).

The court then concluded that the creation of a full-text searchable database is a "quintessentially transformative use" because the results of the search are "different in purpose, character, expression, meaning, and message" from the original work from which it is drawn (*Authors Guild v. HathiTrust*, 2014, p. 97).

Likewise, the court took issue with the lower court's transformation analysis with respect to HDL's improved access for print-disabled patrons: "providing expanded access ... is not 'transformative'" because it does not "add something new to the copyrighted work" (*Authors Guild v. HathiTrust*, 2014, p. 101). Furthermore, the court concluded that HDL's purpose in improving access was no different from the purpose of the original works; transformation requires more than simply enabling a new audience to read a book. While the court declined to find HDL's improved access transformative, it nevertheless found it to be a non-infringing fair use because HDL took no more than was necessary to effectuate its valid purpose and did not harm the potential market for the original because, sadly, the virtual non-existence of a market for handicap-accessible books necessarily forecloses the possibility of harm.

2.4 Discussion of the Case

As a policy matter, *Authors Guild v. HathiTrust* reached the right result because the potential harm to the Authors Guild is minor and speculative compared to the tremendous benefits to the general public, as well as the grievously underserved print-disabled community, demonstrated by the HDL. Also noteworthy is the care with which the judiciary considered the impact of new technology not just in terms of the three specific uses at issue in the case, but also in terms of how emerging technology-enabled behaviors are conceptualized within the framework provided by existing doctrines, precedent, and copyright's overriding goal:

"The sole interest of the United States and the primary object in conferring the monopoly lie in the general benefits derived by the public from the labors of authors...When technological change has rendered its literal terms ambiguous, the Copyright Act must be construed in light of this basic purpose" (*Authors Guild v. HathiTrust*, 2012, p. 453-454).

But this case also reflects the previously discussed miscalibration or mismatch between the goal of copyright law and the available means for achieving the goal under existing law. The following subsections address a few of the challenges and limitations inherent in the courts' attempts to stretch existing doctrine to fit the contours of emerging technology-enabled behaviors.

2.4.1 Something New

The first issue raised by the courts' rationale in *Authors Guild v. HathiTrust* is essentially doctrinal: HDL's full-text search functionality fails to meet the "adds something new" requirement under traditional transformative use analysis. HDL's full-search function adds societal value because, as the courts noted, it can facilitate research particularly with respect to data-mining, but it achieves this functionality by masking off the entire contents of the protected work save the search terms provided by users and the relevant pages numbers. It is not clear how this masking off alters the original works by adding "new expression, meaning, or message." Removing original expression seems to be the precise opposite of adding new expression. Moreover, while users and data-miners may use the search results to subsequently generate new meaning or message or create information, insights, or understandings with respect to the original works, HDL's search service does not. Full-text search is a technological tool, albeit one that has tremendous value and use to society as the courts noted, but it does not transform the original works by adding something new as required by existing fair use doctrine. The circuit court purported to correct the district court's analysis on this point when it noted that making an "invaluable contribution to the progress of science and cultivation of the arts" is not enough to transform an infringing use into a fair one. A careful review of the circuit court's own reason, however, casts doubt on whether it was ultimately able to push beyond the "value to society" rationale in a meaningful, doctrinally-supported way.

Supporting its decision, the court cited two transformative fair use decisions from other circuits. The first case found a search engine's use of low-resolution thumbnail images to facilitate search functionality to be a fair use (*Perfect 10 v. Amazon.com*, 2007). The second case found a company's digitization of student essays for use in connection with anti-plagiarism detecting software to be a fair use (*A.V. ex rel. Vanderhye v. iParadigms*, 2009). These cases are analogous to *Authors Guild v. HathiTrust* in the sense that each involves behavior that would constitute mass copyright infringement but for the application of a technological tool that, when combined with existing works, produces tremendous benefit to society despite failing to meet the "adding something new" requirement of traditional transformative fair use jurisprudence.

These cases highlight a potentially important disconnect between the core transformative use cases, which deal with expressive or creative works, and an emerging sub-set of transformative use cases, which deal with the technical manipulation of existing works to enable the emergence of new facts and information about those works. These are categorically and qualitatively distinct sorts of activities. When courts lump them together under a single rubric it may undermine jurisprudential clarity, transparency, and credibility, the very concerns that motivated Judge Leval's articulation of the transformative use principle in the first place (1990).

2.4.2 Scalability

Another concern stemming from the courts' reasoning in *Authors Guild v. HathiTrust* concerns issues of scalability. The trio of cases just discussed give rise to a potentially troubling inference that these decisions may be custom-fit solutions only available to very large and/or powerful companies or organizations. It is difficult to imagine how individual, small-scale, more modest, and/or more distributed endeavors combining copyright infringement with a new technological tool could satisfy the implicit requirement that the use result in a tremendous benefit to society. If we agree, however, that society can and does benefit in important ways from the application of new technologies to existing cultural works (as these cases demonstrate), then it makes sense to treat individual, small-scale, more modest, and/or more distributed versions of this activity with a similar degree of deference, if not outright support. It may be true that "quantity has a quality all its own," but if courts limit the protections of fair use to massive scale projects like those of HathiTrust and Google, we risk losing out on the societal benefits resulting from less heroic, less visible, but still significant, endeavors.

2.4.3 Implications Under Other Laws

Related to this is the concern of what happens when it is not copyright law but some other set of legal rules that is applied to the activity. In those instances, fair use would not be an option. Take for example, the much publicized activity of Aaron Swartz. Swartz entered a computer lab at MIT without permission and systematically downloaded a substantial portion of JSTOR's archive. It is not entirely clear what his intentions were but it is presumed that he planned to make the materials more widely accessible or, at the minimum, raise awareness around the issue of access to scholarly works. As a result, the United States' Department of Justice indicted him on two counts of wire fraud and eleven violations of the Computer Fraud and Abuse Act, carrying a cumulative maximum penalty of \$1 million in fines and 35 years in

prison. While those charges were ultimately dismissed after Swartz's suicide two years later, the case highlights the fact that emerging technology-enabled activities are often not restricted to the copyright law domain. There is no fair use defense to wire fraud or violations of the Computer Fraud and Abuse Act (18 U.S.C. §1030). Despite one's views on Swartz's particular activities, this example highlights society's uncertain, evolving view of how to treat people who allegedly break the law by copying protected works "not to enrich themselves, but to make [the works] available to others." It is not clear that the existing legal regime offers a satisfactory response to this uncertainty (Associated Press, 2013). This suggests that potential resolution of the phenomenon discussed herein will require a policy solution that is not strictly limited to copyright law but consists of a set of principles with broader applicability.

3 Innovative Deviance: An Emerging Theoretical Framework

Thus far, this paper has explored aspects of the complicated, often murky intersection between copyright law, technological change, and emerging behavior. The paper discussed some of the broader policy concerns stemming from the widely-perceived miscalibration of copyright law's means-end formulation and discussed judicial approaches to recalibration using existing fair use doctrine, focusing on a particular behavior, mass digitization, in the context of an exemplar case, *Authors Guild v. HathiTrust*. Those sections illustrated the challenges and limitations inherent in attempts to stretch existing copyright laws -- premised on a past technical reality -- to fit the contours of emerging behaviors.

In this section, the paper steps back from current policy debates and litigation around mass digitization to focus on the broader, somewhat paradoxical, phenomenon: changes in technology enable the emergence of new copyright-related behaviors that have the potential to promote the overriding goal of copyright through the use of unorthodox, illegitimate, and/or infringing means. Engaging sociological literature on deviance, this section begins to articulate an emerging theoretical framework for understanding the interplay between copyright law, technological change, and emerging behavior based upon social disorganization and structural strain theory. By offering a glimpse into the phenomenon via this new and different lens, this section hopes to expand our understanding phenomenon and potentially enrich existing discourse on copyright and technological change.

3.1 Social Disorganization Theory

Technological innovation has long been recognized by sociologists as a catalyst for transgressive or deviant behavior. For example, in the 1920s the Chicago School posited that rapid technological change damages society's web of normative controls resulting in normative dissensus and social disorganization. Over the short-term, these theorists argued that the natural by-product of social disorganization is deviance; people break the rules. Over the long-term, deviance would be reclassified as "normative competition" which, in their view, should ultimately push society toward reorganization around new norms. (Pfohl, 1994)

In the context of HathiTrust and mass digitization, social disorganization theory might suggest that the significant advances in information technology previously discussed, particularly with respect to network infrastructure development, the creation of standards and protocols, and improvements in digitization at scale, disrupted the functionality, credibility, and relevance of existing copyright rules governing how intellectual and creative works are created, shared, organized, and disseminated. The possibilities inherent in digitization at scale fundamentally altered the context of institutional sensemaking and decision-making around copyright issues and led several major research institutions to engage in a mass digitization project that potentially exposed them to hundreds of millions of dollars in damages. As the still-active litigations stemming from the Google Library Project can attest, we are still in the process of reorganizing the flux.

While social disorganization theory offers some insights into the relationship between technological change and deviance, one drawback is that it does not distinguish between *kinds* of deviance. In particular, it makes no distinction between deviance that may be beneficial or productive for society versus non-utilitarian or destructive deviance. A different but I would argue complimentary theory of deviance developed by Robert K. Merton in his 1938 book, *Social Structure and Anomie*, offers some additional insights on this point.

3.2 Structural Strain Theory

Instead of focusing on rapid technological change as the primary catalyst for deviance, Merton's premise was that deviance is a natural by-product of structured inequalities in society, namely a mismatch between accepted cultural goals and the availability of legitimate means to accomplish those goals. In the context of this research, copyright law's means-end formulation can be understood as a structured

inequality in two senses. First, the entire copyright system is, in essence, a structured inequality because based upon state created and sanctioned monopolies for authors in the cultural and intellectual works they create. Second, and perhaps more importantly, the widely-perceived imbalance or miscalibration between the goal of copyright law and the means set forth to accomplish its goal also reflects a structured inequality for purposes of Merton's theory.

According to Merton, the mismatch between accepted cultural goals and the availability of legitimate means to accomplish those goals pushes people toward deviance along one of four possible paths:

- Innovative deviance: goals are accepted but legitimate means are rejected or unavailable;
- Ritualistic deviance: goals are rejected but legitimate means are accepted;
- Retreatist deviance: goals are rejected and legitimate means are rejected or unavailable;
- Rebellious deviance: both goals and means are rejected and "something better" is sought

HathiTrust's mass digitization project could be understood as an example of innovative deviance with respect to existing copyright law. Its primary progenitor, the University of Michigan, sought to preserve, improve access to, and stimulate the creation of new intellectual and creative works by permitting the unauthorized digital reproduction of its vast print collection. In essence, Michigan sought to advance the goal of copyright by engaging in an activity that potentially constituted mass copyright infringement. Although it was not referenced by the courts in the *Authors Guild v. HathiTrust* cases, Merton's theoretical framework might help explain, or provide additional context, for the courts' rationale when it suspended a conventional application of the fair use doctrine in recognition of HathiTrust's "invaluable contribution to the advancement of knowledge" (*Authors Guild v. HathiTrust*, 2014, p. 93 quoting *Authors Guild v. HathiTrust*, 2012, p. 460-464). In addition, it could help ameliorate the concerns previously raised around scalability (where a fair use defense may be less likely to succeed) and the application of other, non-copyright, laws (where fair use would not be available as a defense). An expanded and more fully developed theory of innovative deviance could assist courts in reasoning through future cases and articulating clear bases for decisions arising at the intersection of new technological and emerging copyright-related behavior.

The innovative deviance framework might also provide guidance to lawmakers as they continue to contemplate reforms to existing copyright law. If copyright law is miscalibrated with respect to technological change and this has resulted in an imbalance or mismatch in copyright's means-end formulation then, according to Merton's theory, deviance is an unavoidable consequence. The structural inequalities in copyright law made manifest by significant changes in information technology effectively push members of society toward infringement. The best response then for lawmakers, stakeholders, and society more generally, at least in the short-term, would be to take a permissive or supportive stance toward innovative deviance because, of the four possible paths of deviance articulated by Merton, it is the only one that preserves and/or advances the goal of copyright. Innovative deviance, further described by Merton as "the creative use of illegitimate means to advance an important legitimate end" (1938, p. 230) is, in essence, utilitarian infringement. Merton's theory would thus suggest that efforts to reform existing copyright laws should, first and foremost, seek to strengthen and support the overriding goals of copyright against the other (non-utilitarian) paths of deviance, and secondarily seek to expand the availability of legitimate means to accomplish its goal by either reducing the scope and/or reach of the exclusive rights (17 U.S.C. §106) or expanding the scope and/or reach of limitations to the exclusive rights (17 U.S.C. §§107-112).

4 Conclusion

The economist and sociologist Thorstein Veblen wryly remarked, "It is not easy in any given case – indeed it is at times impossible until the courts have spoken – to say whether [an activity] is an instance of praiseworthy salesmanship or penitentiary offense" (as quoted in Merton, 1957, p. 195). These lines can seem particularly blurred when the behavior at issue accomplishes an important and well-accepted societal goal but uses illegitimate or infringing means to do so. By exploring the ways in which existing copyright law and current policy debates intersect with emerging technology-enabled ways of creating, organizing, managing, disseminating, and engaging with existing works, this research illustrates that the distinction between an "invaluable contribution to the progress of science and cultivation of the arts" and copyright infringement is not always self-evident or easy to explain via conventional legal methods. This observation is further supported by an in-depth discussion and analysis of mass digitization in the context of the recent HathiTrust litigation and, in particular, the courts' reliance on existing fair use doctrine to

support what may have ultimately been a policy-based decision. Finally, by drawing upon sociological theories on technological change and deviance, this research begins to articulate a theoretical framework for re-conceptualizing the interplay between copyright law and technological change. This research suggests that innovative deviance might provides a framework within which existing laws can learn to change in step with technological change. Viewing the phenomenon via this new lens, this research hopes to deepen current understandings, enrich existing discourse, and ignite renewed reflection of this complex, murky, yet important topic.

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