



# Text Recycling in Research Writing: U.S. Copyright Law and Fair Use

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## Authors

David Hansen, Duke University  
Associate University Librarian for Research, Collections & Scholarly Communication,  
Lead Copyright & Information Policy Officer

Cary Moskowitz, Duke University  
Director of Writing in the Disciplines, Thompson Writing Program  
Director, Text Recycling Research Project

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## About the Text Recycling Research Project

As the use of plagiarism-detection software by research journals and academic institutions grows, more instances of text recycling are being identified—and yet there is no consensus on what constitutes ethically or legally acceptable practice. Text recycling is thus an increasingly important and problematic matter in research ethics and publishing. Nonetheless, and in spite of the proliferation of journal editorials and guidelines on the topic, little actual research on text recycling had been conducted, and it is rarely addressed in the ethical training of researchers or in scientific writing textbooks or websites. The Text Recycling Research Project is the first large-scale investigation of the subject. Our aim is to better understand text recycling, to help build consensus among stakeholders, and to promote ethical and appropriate practice.

The TRRP has an advisory board with experts from major publishers (both profit and non-profit), editor organizations, scholarly societies, government research agencies, and research integrity officers. Our guidelines and policies are vetted by the board to ensure that they will be useful and appropriate for a broad range of research and publishing constituencies. You can find the list of board members on the [People](#) page of our [website](#).

## Executive Summary

Much has been written over the past two decades about the ethics of self-plagiarism, or “text recycling.” While there is still considerable debate about the ethical and practical dimensions of text recycling, there is growing consensus that the practice is ethically acceptable (and sometimes even preferable) in some circumstances. Nevertheless, legal concerns can sometimes override ethical considerations. Even in the limited context of scientific research writing, understanding the law as it applies to text recycling can be difficult, as no laws directly address the issue as such.

This white paper addresses how U.S. copyright law and the doctrine of “fair use” apply to text recycling in STEM research reports. (Legal concerns related to author-publisher contracts will be addressed in Part II, forthcoming.) More specifically, we address whether copyright law restricts recycling material from an author’s previously published scientific research report into a new scientific manuscript submitted for publication. According to our analysis, the most common uses of text recycling in scientific research articles are generally allowable according to U.S. copyright law under fair use. Reuse of materials that describe methods, materials, background, and literature review are especially likely to pose little legal risk. To the extent that STEM journal and publisher policies are formulated as a means of ensuring legal compliance, they should not curtail authors’ use of text recycling based on copyright considerations.

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# 1. Introduction

It is widely understood that science advances through building on the work of others. Yet it is equally true that scientists routinely build on prior work of their own. And while each successive publication in a line of research is expected to present substantive, original findings, scientists often need to communicate some of the same content across multiple research articles (giving an overview of prior research, describing an experimental apparatus or statistical method, and so on). As a result, scientists frequently have occasion to reuse material from one of their previously published articles in a new manuscript—a practice known as text recycling or, problematically, as “self-plagiarism”<sup>1</sup>. The Text Recycling Research Project defines text recycling as the reuse of textual material in a new document where (1) the material in the new document is identical to that of the source (or substantively equivalent in both form and content), (2) the material is not presented in the new document as a quotation (via quotation marks or block indentation), and (3) at least one author of the new document is also an author of the prior document.<sup>2</sup>

Unlike plagiarism, which is almost universally condemned in scientific writing as unethical and as scientific misconduct,<sup>3</sup> there is growing consensus that text recycling can be ethically acceptable (and sometimes even preferable) in some circumstances. The Committee on Publication Ethics’s “Text recycling guidelines for editors”<sup>4</sup> states:

The guidelines cover how to deal with text recycling both in a submitted manuscript and a published article and include situations where text recycling may be acceptable as well as those where it is unlikely to be.

Similarly, John Wiley & Sons, a leading for-profit STEM publisher, has this statement in its document, “Best Practice Guidelines on Publishing Ethics”:

Journals may find it useful to establish a policy about how much, if any, and under what circumstances they consider it acceptable to recycle text and results between articles. This may be important, for example, for authors who wish to communicate results from a research project to multiple audiences. In this instance, full or partial results might be recycled for legitimate reasons, although the discussion and conclusions would be different.<sup>5</sup>

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<sup>1</sup> For a discussion of the problematic nature of the term *self-plagiarism*, see Cary Moskowitz. Text Recycling in Scientific Writing. *Science and Engineering Ethics*. 2019. DOI: 10.1007/s11948-017-0008-y

<sup>2</sup> What is Text Recycling? Text Recycling Research Project. <https://textrecycling.org/what-is-text-recycling/>

<sup>3</sup> See, for example: National Science Foundation. Research Misconduct, 45 CFR Part 689. Federal Register. (<https://www.nsf.gov/oig/pdf/cfr/45-CFR-689.pdf>); Research misconduct, responsibilities of institutions, office of research integrity (ORI); [https://grants.nih.gov/grants/policy/nihgps/html5/section\\_4/4.1.27\\_research\\_misconduct.htm](https://grants.nih.gov/grants/policy/nihgps/html5/section_4/4.1.27_research_misconduct.htm); The European Code of Conduct for Research Integrity, [https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics\\_code-of-conduct\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf) )

<sup>4</sup> <https://publicationethics.org/resources/guidelines-new/text-recycling-guidelines-editors-0>

<sup>5</sup> Graf, C., Deakin, L., Docking, M., Jones, J., Joshua, S., McKerahan, T., ... & Wyatt, D. (2014). Best practice guidelines on publishing ethics: a publisher's



While ethical issues are usually a principle concern for those making decisions about specific instances of recycling, legal concerns can sometimes override ethical considerations. In an interview-based study of editors of major journals across the academic spectrum, a number of editors said that even though they believed limited text recycling could be ethically and rhetorically appropriate in some situations, they required authors to avoid the practice because they thought it could infringe copyright—fearing legal consequences for the journal.<sup>6</sup>

So what does the law actually say about text recycling? Nothing explicitly. No statutes directly address text recycling as such, and it is scarcely addressed in secondary literature under more general principles of copyright, contract, or other laws. Those who seek to determine the legalities of text recycling must therefore make inferences from general copyright and contract law—which in the United States and other common law jurisdictions requires reasoning from judicial opinions on cases that bear little resemblance to the typical scholarly text recycling scenario. Even when limiting the context to scholarly writing, the wide variety of genres, textual materials, and other contextual factors makes it difficult to legally analyze recycling as a single practice. Adding yet another complication, the contractual terms of author-publisher contracts vary widely—and these may also affect the legality of the practice. Even within the limited context of scholarly writing, a comprehensive analysis of text recycling would be both too complex and too lengthy to be useful for most of those who need this information.

In order to provide the scientific community with an accurate and useful legal analysis of text recycling, the present work addresses one specific but central context: the recycling of material from one’s published scientific research article to a new article.

Concern over copyright infringement for text recycling is driven by instances in which the publisher of the original work holds rights that conflict with the rights that an author seeks to exercise in the subsequent work. In this white paper, we leave aside the contractual terms that define the allocation of rights between author and publisher, addressing the circumstances under which the author has the ability to recycle their previously published material under the doctrine of “fair use”—a legal doctrine of U.S. law that “promotes freedom of expression by permitting the unlicensed use of copyright-protected works in certain circumstances.”<sup>7</sup> In other words, if a use is “fair,” authors do not need permission of the copyright holder for that use.

We begin by distinguishing between text recycling and plagiarism with respect to copyright law. We then give a general overview of relevant U.S. copyright law and the doctrine of “fair use,” followed by an analysis of how this law applies to text recycling between two scientific research articles. We conclude that, under U.S. law, fair use provides wide latitude for text recycling in these research articles. Thus, to the extent that STEM journal and publisher policies are formulated as a means of ensuring legal compliance, we argue that they should not curtail authors’ use of text recycling based on copyright considerations.

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perspective. <https://authorservices.wiley.com/asset/Best-Practice-Guidelines-on-Publishing-Ethics-2ed.pdf>

<sup>6</sup> Michael A. Pemberton, Susanne Hall, Cary Moskovitz & Chris Anson. Text Recycling: Views of North American Journal Editors from an Interview-Based Study. *Learned Publishing*, 2019. DOI: 10.1002/leap.1259

<sup>7</sup> U.S. Copyright Office. More Information on Fair Use. <https://www.copyright.gov/fair-use/more-info.html>

## Common misunderstandings

*Little of the analysis in this paper specifically addresses the reuse of one's own published material. In fact, a finding of fair use for the scenarios considered in this paper largely applies to the reuse of material from the work of others. The reason that authors of scientific research articles should not reuse other's work in this way is not a legal one, at least not in the U.S; it is because such use is widely considered unethical or otherwise improper. It is plagiarism, which while not illegal in the U.S., is identified by the U.S. government as one of the three principle forms of scientific misconduct.*

*Similar confusion exists on the relationship between attribution and copyright. There is a widespread misconception that the addition of a citation makes use legal. But citation is not relevant in determining whether a use is fair—because authors, under U.S. law, have no right of attribution. Editors and authors should understand that under U.S. law, concerns about possible infringement cannot be addressed by the addition of a citation.*

*Unfortunately, confusion on these matters appears to be widespread, even among editors of scientific journals. While confusion on these issues may be due, in part, to differences regarding attribution rights among nations, it is more likely due to the continued, informal spread of erroneous information. We take pains here to correct these misunderstanding, as those who understand this will be better able to address plagiarism in policy and practice.*

*An additional consideration that is ethically significant but mostly legally irrelevant is multiple and varied authorship between the source and destination articles. In contemporary scientific communication, multiple authorship is the norm. If the authors of the source and destination article are identical, the issue multiple authorship is moot. But what if the authorship of the articles overlaps but is not identical? One might suspect that this complication would have a pronounced effect on the analysis. While this does add ethical complications and questions, and the intent of the authors does matter for establishing the initial joint ownership of the work, the legal analysis is largely unaffected. As we note in the section below, in most STEM publishing situations, the owner of the copyright of the source article is usually the publisher, not the authors. The risk of a copyright infringement action is, therefore, solely between the publisher of the source article and the authors of destination article. The key point here is that while conditions of authorship may raise ethical concerns about plagiarism, the legal doctrine of fair use would still apply.*



## 2. Overview of Copyright Law and Fair Use as Applied to STEM Publications

A number of U.S. laws may be applicable to text recycling. But contrary to common belief, "plagiarism" is probably not one of these. Under U.S. law, plagiarism is not typically an independently actionable offence.<sup>8</sup> The key legal matter related to plagiarism in scientific writing is that it might raise claims of research misconduct which may violate employer or research funder policies.<sup>9</sup> Copyright law is the more generally applicable framework for evaluating the type of copying involved with text recycling. Across almost all jurisdictions, copyright law grants to the author of a given work the exclusive right to control reproduction as well as adaptation of that work in subsequent works (among other things).<sup>10</sup> Legal issues regarding text recycling generally arise because scientists usually sign over those rights to the publisher.

To begin, we assume that most STEM publications are at least in part protected by copyright. While this assertion may seem obvious, there is room for argument—at least in the United States—about the extent to which copyright protection extends to works that are primarily designed to communicate facts and ideas of systems, methods, or processes. U.S. copyright law is primarily designed to incentivize authors to produce new creative works. The Constitutional source of authority for the Copyright Act gives authority to Congress to grant rights only to “authors” and “inventors.”<sup>11</sup> For copyright, those rights are granted with the idea that exclusive control, which can be economically valuable, gives authors an additional reason to produce. Those protections are automatic, as soon as the work is created, but as the U.S. Supreme Court has explained, they are not all encompassing: “The sine qua non of copyright is originality. To qualify for copyright protection, a work must be original to the author. . . . Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity.”<sup>12</sup> This is why copyright has long been understood to exclude copyright

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<sup>8</sup> A handful of legal actions brought by or against students invoke a variety of statutes directed at student work fraudulently submitted for academic credit, see, e.g., 110 Ill. Comp. Stat. Ann. 5/1 (2020) (“Academic Plagiarism Act”); see also *Claims of Student Plagiarism and Student Claims Arising from Such Allegations*, 83 A.L.R.6th 195 (originally published 2013). See also *O'Rourke v. RKO Radio Pictures*, 44 F. Supp. 480, 482, 483 (D. Mass. 1942) (“The act of appropriating the literary composition of another, or parts or passages of his writings, or the ideas or language of the same, and passing them off as the product of one's own mind.”).

<sup>9</sup>For example, one of the most commonly cited definitions of plagiarism, codified in a variety of federal regulations aimed at combating research misconduct in the context of federal grants states that “plagiarism” is defined as “the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.” 42 C.F.R. § 93.103 (Public Health Service). Under those terms, the label of “self plagiarism” makes little sense as the work being used is by definition not “another person's.” See also 45 C.F.R. § 689.1(a)(3) (National Science Foundation: “Plagiarism means the appropriation of another person's ideas, processes, results or words without giving appropriate credit.”); 2 C.F.R. § 910.132 (Department of Energy: “Plagiarism means the appropriation of another person's ideas, processes, results, or words without giving appropriate credit”).

<sup>10</sup> Berne Convention (1978), Art. 9, art. 12.

<sup>11</sup> U.S. Const. Art.1, §8, Cl. 8.

<sup>12</sup> *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 US 340, 345 (1994).

protection for raw facts. It is also why the Supreme Court has explained that even where there is protection of facts embedded in creative expression, “[C]opyright protection is narrower, and the corresponding application of the fair use defense greater, in the case of factual works than in the case of works of fiction or fantasy”<sup>13</sup>.<sup>14</sup> Although there is always some subjectivity, STEM research articles generally try to establish and communicate facts in as neutral a way as possible—as a basis for presenting new and original data or ideas.

In addition to this “thin” protection for factual aspects of STEM papers, descriptions of methodology and materials in STEM articles may be considered similarly “thin” for another reason. Section 102(b) of the Copyright Act specifically excludes protection for “any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied.”<sup>15</sup> The intent of a description of methodology in STEM publications is explicitly to communicate in straightforward terms a “method of operation.” While methods of operation themselves are not copyrightable, the text describing them might be.<sup>16</sup> However, such text almost always serves a primarily functional role, and like other functional texts such as an API, it would likely be considered by the courts to have only “thin” copyright protection.

All of this is not to say that STEM publications are entirely unprotectable by copyright—they undoubtedly are—but that portions of them receive only “thin” protection that is more amendable to a fair use assertion, as discussed below.

Because text recycling involves authors reusing their own work, it is important to also address the copyright ownership arrangement under which most STEM articles are published. In the United States, authors initially own rights in their original creations.<sup>17</sup> This is true for the author of a scholarly article as well as for any other type of creative work.<sup>18</sup> As long as the work

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<sup>13</sup> Google LLC v. Oracle Am., Inc., 18-956, 2021 WL 1240906, at \*10 (U.S. Apr. 5, 2021) (quoting approvingly 4 M. Nimmer & D. Nimmer, Copyright § 13.05[A] [2][a] (2019)).

<sup>14</sup> Feist Publications Inc. v. Rural Telephone Service Company, 499 U.S. 340, 349 (1991) (noting that the copyright in a factual compilation is thin”); Experian Information Solutions, Inc. v. Nationwide Marketing Servs. Inc., 893 F.3d 1176, 1186 (9th Cir. 2018) (“In the context of factual compilations, ... there can be no infringement unless the works are virtually identical” (internal quotation marks omitted)).

<sup>15</sup> Copyright law operates alongside other intellectual property protections, the most relevant in this context is patent law, which is partly why some “systems, and methods of operations,” are excluded from copyright protection. There is significant debate over whether and to what extent copyright and patent protection overlap—for example, in software creations. See Google LLC v. Oracle Am., Inc., 18-956, 141 S. Ct. 1183, 2021 WL 1240906 (U.S. Apr. 5, 2021).

<sup>16</sup> Copyright protection of methods would only exist if there are a reasonable number of alternative ways to communicate that same idea. When the number of ways to accurately describe a method are very limited, the law treats the idea of the method and the expression as merged and thus not copyrightable. See, e.g., Ho v. Taflove, 648 F.3d 489, 498 (7th Cir. 2011).

<sup>17</sup> 17 U.S.C. § 201. For works of joint authorship, the joint authors jointly hold rights.

<sup>18</sup> Note that there is some debate about whether articles written by researchers within the scope of their employment should be considered “works for hire” and owned by their employer/university. Under prior law there was a judicially-crafted “academic” exception to the typical work-for-hire ownership allocation rules. Since the 1976 revision to US Copyright Law, the continued applicability of that exception has been called into question, but most U.S. universities as a matter of policy state that copyright in works of scholarship created by university employees are owned by those individual creators. See, e.g., Duke Faculty Handbook, Appendix P, Intellectual Property Policy; see also Corynne McSherry, Who Owns

has a “modicum of creativity,”<sup>19</sup> is original to the author, and is fixed in a tangible medium of expression,<sup>20</sup> copyright law attaches to the work and is vested automatically in its creator, subject to several important exceptions and limitations.<sup>21</sup> In this default state, authors should have no copyright concerns about recycling any amount or type of material from their own prior work; as holder of all rights, the author can freely dictate how that content is reproduced, distributed, recast, adapted, and used in a variety of other ways.<sup>22</sup>

In practice, however, scholarly authors rarely retain rights in their published articles. For at least half a century, standard terms across scholarly publishing contracts from most major publishers have been to require either an assignment of rights or an exclusive license of rights from the author to the publisher.<sup>23</sup>

While this traditional “swap” of copyright from author to publisher in exchange for publication has recently begun to change with the advent of open access publishing,<sup>24</sup> it nevertheless remains the most common ownership scenario for scholarly articles.<sup>25</sup> Thus the concern over copyright infringement for text recycling stems from the concern that the publisher of the original work may own rights that now conflict with the rights that the author seeks to exercise in the subsequent work. The question we seek to address first is whether such a conflict really exists, or whether the author has the ability to make subsequent uses anyway, without additional permission, under the doctrine of fair use.

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Academic Work? (Harvard University Press 2003); Kevin L. Smith. *Owning and Using Scholarship: An IP Handbook for Teachers and Researchers*

<sup>19</sup> Feist Publications Inc. v. Rural Telephone Service Company, 499 U.S. 340 (1991).

<sup>20</sup> 17 U.S.C. § 102(a)

<sup>21</sup> 17 U.S.C. § 201. *See, e.g.*, 17 U.S.C. § 105 (excluding works of the U.S. government from protection); § 102(b).

<sup>22</sup> 17 U.S.C. 106.

<sup>23</sup> Elisheva Patterson, *Academic Author Copyright Loss-Impacts and Remedies*, 61 ARIZ. L. REV. 699, 699 (2019) (reporting on “loss of author copyright through publishing agreements”).

<sup>24</sup> *See SPARC author addendum*, <https://sparcopen.org/our-work/author-rights/brochure-html/>; *See also PLOS Author Agreement*, <https://journals.plos.org/plosone/s/licenses-and-copyright>

<sup>25</sup> Note that even in these cases, many publication contracts do grant back certain limited reuse rights to authors. There is considerable variation in the scope of those rights from one publishing contract to another, generating its own confusion. We address contractual allocation of rights more thoroughly in a forthcoming article. For a helpful overview of academic publisher journal contracts, see SHERPA/RoMEO Publisher copyright policies & self-archiving: <http://sherpa.ac.uk/romeo/index.php>

### 3. Fair Use and the Limits of Copyright

The U.S. Copyright Act contains many specific limits on the scope of copyright protection. As noted above, Section 102(b) states that copyright protection shall in no case extend to an “idea, procedure, process, system, method of operation, concept, principle, or discovery.” Other sections of the Copyright Act address limitations allowing for uses such as library preservation and in-class performance of works.<sup>26</sup> Most of these sections address details such as the number of copies that can be made and under what circumstances—matters not applicable to the scenario we consider here.

“Fair use” is among the most important limits on the rights of copyright owners and is highly relevant for text recycling.<sup>27</sup> As an integral part of U.S. copyright law, fair use “permits and requires courts to avoid rigid application of the copyright statute, when, on occasion, it would stifle the very creativity that law is designed to foster.”<sup>28</sup> Fair use, which was initially a judge-made (as opposed to legislatively-produced) doctrine initially developed in the 19th Century,<sup>29</sup> has been described as an “equitable rule of reason.”<sup>30</sup> In applying this doctrine over the years, the courts developed a series of factors to consider; Congress then codified these factors in the Copyright Act. This codification of fair use states that “the fair use of a copyrighted work . . . for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research is not copyright infringement.”<sup>31</sup>

To apply the doctrine, Congress identified four non-exclusive factors that courts and authors should consider:

- “(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;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.”<sup>32</sup>

In recent years, courts have given considerably more attention to the first and fourth factors<sup>33</sup>:  
(1) the purpose and character of the use, and in particular whether the new use is

<sup>26</sup> 17 U.S.C. § 108 (libraries); 17 U.S.C. § 110(1) (face-to-face classroom teaching).

<sup>27</sup> The only published discussion we have found to date applying fair use to text recycling is Pamela Samuelson’s “Self-plagiarism or fair use.” *Communications of the ACM*, 37(8), 21-25 (1994).

<sup>28</sup> *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 577 (1994) (internal quotation omitted)

<sup>29</sup> *Folsom v. Marsh*, 9. F.Cas. 342 (C.C.D. Mass. 1841).

<sup>30</sup> *Harper & Row v. Nation Enterprises*, 471 U.S. 539 (1985).

<sup>31</sup> 17 U.S.C. § 107 (2018).

<sup>32</sup> 17 U.S.C. § 107 (2018)

<sup>33</sup> See Barton Bebee, *An Empirical Study of United States Copyright Fair Use Opinions, 1978- 2005*, 156 U. PA. L. REV. 549, 574–5 (2008). Jiarui Liu, *An Empirical Study of Transformative Use in Copyright Law*, 22 STAN. TECH. L. REV. 163, 166 (2019) ([T]ransformative use has been gradually approaching total dominance in fair use jurisprudence since *Campbell*”).

“transformative” by adding new expression, meaning or message to the content; and (4) whether the new use negatively impacts the market for the original. Factors (2) and (3) have tended to play a supporting role. However, given the largely factual nature of the material in STEM research articles (discussed below), the second factor (nature of the work) should take on significantly more weight than it does in the typical fair use case. In the ultimate decision, all factors are to be weighed together and balanced in light of the “purposes of copyright,”<sup>34</sup> which the U.S. Constitution defines not as protecting copyholders rights but “[t]o promote the Progress of Science and useful Arts. . .”.<sup>35</sup>

### Factor 1: Purpose and Character

The first fair use factor asks courts and users to assess “the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes.” To start, it is worth observing that uses that have been described as “paradigmatic”<sup>36</sup> fair uses, listed in the statutory preamble, include uses for “research” and “scholarship.”<sup>37</sup> Although courts have been clear that these examples are not per se fair use, use that serves these purposes receive special consideration, with some courts going so far as to say that “there is a strong presumption that factor one favors the party seeking application of the doctrine of fair use if the allegedly infringing work fits the description of uses described in §107.”<sup>38</sup>

Beyond those statutory examples, in conducting this analysis, recent caselaw has tended to focus especially on whether a given use is transformative—whether, that is, the new work “merely supersedes the object of the original creation” or if it adds “something new [to the original],”<sup>39</sup> “with a further purpose or different character, altering the first with new expression, meaning or message...”<sup>40</sup> Transformation can include, for example, substantial quotation of an original work in a parody.<sup>41</sup>

Although no cases to date have directly addressed transformativeness of recycled material in scholarly work, courts have found transformative use in a wide variety of circumstances. The most traditional of these have been cases about reuse for commentary or criticism. In *Sundeman v. Seajay Society, Inc.*<sup>42</sup> for example, the issue was whether copying a source text in a scholarly commentary was acceptably transformative. The court concluded that it was, and that the overall use was a fair use.

Use of an entire work may also be transformative. In *Bill Graham Archives v. Dorling Kindersley Ltd.*, for example, the court found transformative the reuse of many full (though

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<sup>34</sup> *Campbell v. Acuff-Rose Music, Inc.* 510 U.S. 569, 578 (1994).

<sup>35</sup> U.S. Const. Art 1., Sec 8, Cl. 8.

<sup>36</sup> *Oracle*, 2021 WL 1240906 at \*16.

<sup>37</sup> 17 U.S.C. § 107.

<sup>38</sup> *NXIVM Corp. v. Ross Inst.*, 364 F.3d 471, 477 (2d Cir. 2004)

<sup>39</sup> *Campbell*, 510 U.S. at 578 (1994).

<sup>40</sup> *Id.* at 579 (citing *Leval*, 103 HARVARD L. REV. at 1111)

<sup>41</sup> *See id.*

<sup>42</sup> 142 F.3d 194, 202 (4th Cir. 1998)

reduced-size) Grateful Dead concert posters in a book about the band, as the new use was repurposing the originals as “historical artifacts” from which readers could learn.<sup>43</sup>

Courts have found uses to be transformative and fair even when the new use and new purpose did not necessarily result in a new copyrightable work. In *A.V. ex rel. Vanderhuy v. iParadigms, LLC*, for example, the full-text copying of students’ papers for archiving and use by the software Turnitin to detect future plagiarism was found to be transformative.<sup>44</sup> Similarly, in *Authors Guild v. Google*, the scanning of millions of books for the purposes of enabling full-text search was found to be fair use. In this case, the underlying materials were copied in-whole and were reused functionally in an information-finding tool to show readers “snippet views” of their search terms locations within the scanned books.<sup>45</sup>

While transformation has been a primary matter in first-factor analysis, the first fair use factor also addresses several other questions. These include whether the use was non-commercial,<sup>46</sup> whether it was for educational or research purposes, and other, broader considerations such as perceived public benefit.<sup>47</sup> Each also has a role to play with the fair use analysis in this context. Commerciality in particular had been a major point of emphasis in earlier fair use case law, with some courts concluding that a finding of commerciality was nearly dispositive in a fair use analysis.<sup>48</sup> In the academic context the traditional idea of commerciality is an awkward fit, though courts have observed that “monetary gain is not the sole criteria. . . . Particularly in an academic setting, profit is ill measured in dollars. Instead, what is valuable is recognition.”<sup>49</sup> However, in recent years the Supreme Court and lower courts have deemphasized the centrality of commercial motive. In *Campbell v. Acuff-Rose*, a case about a commercially successful parody song, the Supreme Court emphasized that commerciality or non-profit use is “not conclusive,” but merely “a fact to be weighed along with others in fair use decisions.” The court went on to explain that “the more transformative the work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.”<sup>50</sup> More recently, in *Oracle v. Google*, a case in which Oracle challenged Google’s commercial reimplementation of Oracle’s code, the Court reemphasized this approach: “There is no doubt that a finding that copying was noncommercial in nature tips the scales in favor of fair use. But the inverse is not necessarily true, as many common fair uses are indisputably commercial.”<sup>51</sup>

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<sup>43</sup> *Bill Graham Archives v. Dorling Kindersley, Ltd*, 448 F.3d 605 (2d Cir. 2006).

<sup>44</sup> *A.V. ex Rel. Vanderhuy v. iParadigms, LLC*, (4<sup>th</sup> Cir. 1998).

<sup>45</sup> *Authors Guild v. Google*, 804 F.3d 202, 219 (2d Cir. 2015) (2d Cir. 2014)

<sup>46</sup> *Campbell v. Acuff Rose*, *Sundeman v. Seajay Society* (4<sup>th</sup> Cir 1998); *Ca*

<sup>47</sup> *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F. 2d 1510, 1523 (9<sup>th</sup> Cir. 1992).

<sup>48</sup> *Campbell v. Acuff-Rose Music, Inc.* 972 F. 2d 1429, 1436-37 (6<sup>th</sup> Cir. 1992) (reversed and remanded by 510 U.S. 569, 578 (1994)).

<sup>49</sup> *Weissmann v. Freeman*, 868 F.2d 1313, 1324 (2d Cir. 1989).

<sup>50</sup> *Campbell*, 510 U.S. at 579.

<sup>51</sup> *Oracle*, 2021 WL 1240906 at \*16. *See also* *Authors Guild*, 804 F.3d 202, 219 (2d Cir. 2015) (“Our court has since repeatedly rejected the contention that commercial motivation should outweigh a convincing transformative purpose and absence of significant substitutive competition with the original.”); *Castle Rock Entm’t, Inc. v. Carol Pub. Grp., Inc.*, 150 F.3d 132, 141-42 (2d Cir.1998) (“We ... do not give much weight to the fact that the secondary use was for commercial gain. The more critical inquiry under the first factor and in fair use analysis generally is whether the allegedly infringing work merely supersedes the



## Factor 2: Nature of the Work

In recent years, courts have downplayed the “nature of the work” factor, concluding that it can be “of relatively little importance.”<sup>52</sup> However, in some cases involving primarily factual or functional works it has played a critical role. Considering text recycling in the scientific research context, the second factor should be highly relevant.

In essence, the second factor asks questions about whether the material in question is at the “core” or on the periphery of what copyright is intended to protect. Because copyright in the U.S. is primarily aimed at incentivizing the authorship of creative works, the second factor tends to give wider latitude of use for highly factual works. As the U.S. Court of Appeals for the Ninth Circuit has stated in a case about reverse engineering software code, “The second statutory factor, the nature of the copyrighted work, reflects the fact that not all copyrighted works are entitled to the same level of protection. The protection established by the Copyright Act for original works of authorship does not extend to the ideas underlying a work or to the functional or factual aspects of the work”<sup>53</sup> [emphasis added].

For scientific articles and similar materials, courts have certainly found that those materials are protected by copyright, but have also been clear that that these materials are not “not within the core of copyright’s protective purposes”<sup>54</sup> and therefore subject to more latitude for reuse under fair use. For example, in *American Geophysical Union v. Texaco*, a fair use case about copying the full text of scientific articles for internal reference purposes, the court held that “manifestly factual character” of the scientific articles at issue there caused the second factor to weigh in favor of the use.<sup>55</sup> Recall that copyright in the U.S. does not extend at all to “process, system, or method of operation.”<sup>56</sup> The creative expression that embodies such things can be protectable in some cases, but case law suggests that copyright in such a work is “thin.” In fact, courts have given latitude for use not only to factual content but also to the textual material needed to convey that content: “To the extent that a work is functional or factual, it may be copied . . . as may those expressive elements of the work that ‘must necessarily be used as incident to’ expression of the underlying ideas, functional concepts, or facts.”<sup>57</sup> Similarly, courts have said that “works of fiction receive greater protection than works that have strong factual elements, such as historical or biographical works . . . or works that have strong functional elements, such as accounting textbooks.”<sup>58</sup>

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original work or instead adds something new, with a further purpose or different character, altering the first with new meaning or message, in other words whether and to what extent the new work is transformative.”)

<sup>52</sup> *Cambridge U. Press v. Patton*, 769 F.3d 1232, 1270 (11th Cir. 2014). *But see* Robert Kasunic, *Is That All There Is? Reflections on the Nature of the Second Fair Use Factor*, 31 *Columbia Journal of Law & the Arts* 529 (2008).

<sup>53</sup> *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F. 2d 1510 (9th Cir. 1992).

<sup>54</sup> *Am. Geophysical Union v. Texaco Inc.*, 60 F.3d 913, 925 (2d Cir. 1994) (quoting *Campbell*, 510 U.S. at

<sup>55</sup> *Id.* at 925. Ultimately, the court concluded that the overall fair use assessment weighed against *Texaco’s* use, in large part because the whole of the work was used, the use was considered non-transformative and highly commercial, with a substantial harm to the licensing and subscription market for the articles.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Stewart v. Abend*, 495 U.S. 207, 237, 110 S.Ct. 1750, 109 L.Ed.2d 184 (1990).

### Factor 3: Amount and Substantiality

The third fair-use factor addresses two related aspects of the reused material: its quantity and the role that material played in the original work. As the courts have put it, at issue for Factor 3 is “whether the amount and substantiality of the portion used in relation to the copyrighted work as a whole ... are reasonable in relation to the purpose of the copying.”<sup>59</sup> For the substantiality aspect, the courts have focused on how central the material was to the original work, which is often discussed in terms of whether that material is the “heart” of the work. Because the quantity aspect of the third factor appears to lend itself to mechanical application, it is the most frequently misapplied. Rules of thumb such as “no more than 10%” or “no more than 1,000 words”<sup>60</sup> mask the true complexity of third factor analysis, and courts have squarely rejected such quantitative approaches.<sup>61</sup> In the case of *Harper & Row v. Nation*, the Supreme Court found that the defendant had taken the heart of the plaintiff’s work by copying “dramatic focal points” of great “expressive value,” which played a “key role in the infringing work.”<sup>62</sup> This application suggests a connection between this third factor and the second factor, with the more creative aspects of the text tending toward the heart of the work.

### Factor 4: Market Harm

The key question in assessing market harm is whether publication of the new work has negatively affected the market for the original. This factor “requires courts to consider not only the extent of market harm caused by the particular actions of the alleged infringer, but also whether unrestricted and widespread conduct of the sort engaged in by the defendant would result in a substantially adverse impact on the potential market for the original.”<sup>63</sup> This analysis includes direct harm from the use—e.g., loss of sales of the original—but can also include an assessment of lost untapped market potential, such as with a licensing market for the original. Because almost any further reuse could be theoretically licensed, courts have been careful to limit such analysis to the “impact on potential licensing revenues for traditional, reasonable, or likely to be developed markets.”<sup>64</sup> In addition, in cases where the use is found to be “transformative,” the “market substitution is at least less certain, and market harm may not be so readily inferred.”<sup>65</sup> Overall, the thrust of the fourth factor assessment is meant to balance “the benefit the public will derive if the use is permitted and the personal gain the copyright owner will receive if the use is denied.”<sup>66</sup>

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<sup>59</sup> *Campbell*, 510 U.S. at 586, 114 S.Ct. 1164

<sup>60</sup> Readers should not confuse this discussion of legal limits with guidelines for text recycling. Such guidelines may establish quantitative limits for reasons of ethics or norms, independent of any legal concerns.

<sup>61</sup> *Cambridge U. Press*, 769 F.3d at 1270.

<sup>62</sup> *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 566 (1985).

<sup>63</sup> *Campbell*, 510 U.S. at 590, 114 S.Ct. 1164

<sup>64</sup> *Am. Geophysical Union*, 60 F.3d at 930–31.

<sup>65</sup> *Campbell*, 510 U.S. at 591, 114 S.Ct. 1164.

<sup>66</sup> *MCA, Inc. v. Wilson*, 677 F.2d 180, 183 (2d Cir.1981)).

## Fair use beyond the four factors

While the four statutory fair use factors are dominant, there are other considerations which might come into play.<sup>67</sup> Given that fair use has been construed as essentially an “equitable rule” (one aimed at resolving disputes by applying principles of fairness and justness), courts and commentators sometimes consider the user’s intent.<sup>68</sup> For example, in 1965, John Shulman, testifying before Congress during debates that led up to the last major revision of the Copyright Act introduced the idea that finding of fair use should depend on the ethical intent of the author—whether, in his words, the author of the new work was “a true scholar” or “a chisler [sic] who infringes a work for personal profit.”<sup>69</sup> The concept that fair use requires “good faith and fair dealing” became an increasingly acceptable, if inconsistently applied, standard, as courts have considered the concept of “clean hands.”<sup>70</sup> Consideration of intent in the fair use analysis has not, however, been without controversy and is not universally accepted.<sup>71</sup> The trend in recent years has been to reject “bad faith” as a critical element.<sup>72</sup> Most recently, the U.S. Supreme extended its skepticism that such analysis has any continued role to play: “As for bad faith, our [earlier fair use decision] expressed some skepticism about whether bad faith has any role to play in a fair use analysis. We find this skepticism justifiable, as ‘copyright is not a privilege reserved for the well-behaved.’”<sup>73</sup>

Closely related to the intent inquiry is a question about how a court would treat attribution, or lack thereof. Contrary to widespread belief, the presence or absence of a citation to the source of reused material is not a fundamental factor in U.S. copyright law.<sup>74</sup> Attribution has been raised as a potential consideration in some fair use cases, particularly where there is a concern about “passing off” the work of another for ones

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<sup>67</sup> The Fair Use statute uses the word “including” but is not an exclusive list.

<sup>68</sup> See Barton Beebe, *An Empirical Study of United States Copyright Fair Use Opinions, 1978- 2005*, 156 U. PA. L. REV. 549, 574–5 (2008). The question of intent does have importance for other aspects of a copyright analysis – particularly in calculating damages. For example, intent may play an important role in assessing whether copyright’s higher range of statutory damages are available against a willful infringer.

<sup>69</sup> Hearings on H.R. 4347 Before Subcommittee No. 3 of the House Committee on the Judiciary, 89th Cong., at 1694-719 (1965)., as quoted in Frankel and Kellogg, 2012.

<sup>70</sup> See Barton Beebe, *An Empirical Study of United States Copyright Fair Use Opinions, 1978- 2005*, 156 U. PA. L. REV. 549, 574–5 (2008)

<sup>71</sup> Simon Frankel and Matt Kellogg. Bad Faith and Fair Use. 61 J. COPYRIGHT SOC’Y U.S.A. 1 (2013).

<sup>72</sup> *Id.*

<sup>73</sup> Oracle, 2021 WL 1240906 at \*16.

<sup>74</sup> As contrasted with the copyright laws of other nations. A handful of US cases have emphasized attribution as a factor, and always in the context of plagiarism—reusing other author’s material rather than one’s own. See *Robinson v. Random H., Inc.*, 877 F. Supp. 830, 846 (S.D.N.Y. 1995) (expressing as a consideration of bad faith a concern that the defendant took “actions that mislead the public (by passing [the original author’s] words off as his own without any attribution”); *Williamson v. Pearson Educ., Inc.*, 00 CIV. 8240(AGS), 2001 WL 1262964, at \*5 (S.D.N.Y. Oct. 19, 2001) (finding attribution a positive factor in the fair use analysis, because “[d]efendants are not attempting to pass [the plaintiff’s] fact-gathering off as their own.”).

own.<sup>75</sup> While authors may be expected to cite the source of recycled material based on government regulation, institutional policy, or scholarly convention (depending on the field and the specifics of the situation), it is important to emphasize here that U.S. law does not specifically give authors the right to demand attribution. However, were a case of infringement for text recycling be brought against an author or publisher, attribution would play only the narrowest of roles—as part of the judging of intent.

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<sup>75</sup> Weissmann v. Freeman, 868 F.2d 1313, 1324 (2d Cir. 1989)

## 4. Fair Use in STEM Research Writing

### Defining the scenario for analysis

We now apply the fair use framework to the context of research writing in STEM fields. Although STEM researchers produce a variety of written genres (such as design reports, technical memos, IRB protocols, and grant proposals), we limit our analysis to a specific genre: the scientific research article.

In order to clarify the relevant legal issues, we now consider the following scenario which is exceedingly common in the sciences:

A group of authors publish a scientific research article, Paper A, in a journal under Publisher A. These authors subsequently write another scientific article, Paper B, that builds on their work in Paper A. They submit this new article to a journal under Publisher B. The editor and reviewers for Paper B, all of whom are familiar with Paper A, consider Paper B to be worth publishing based on its intellectual merits and new contribution to the field. The authors had previously assigned their rights for Paper A to Publisher A. The use is subject to U.S. law.

It is important to note that neither article in this scenario is an unpublished genre (e.g., conference paper, poster, grant proposal, IRB protocol) nor a different published genre (e.g., review article or commentary). Also note that Paper B explicitly does not merely repackage the findings of Paper A and misrepresent them as new work.<sup>76</sup>

There is one more issue to be addressed: the type and amount of material. This issue greatly influences how the fair use factors are applied. While opinions vary on the conditions under which text recycling in scientific writing is acceptable, there is broad consensus that it is most often acceptable when the recycled material consists of descriptions of methods. For example, BioMed Central's Text Recycling Guidelines state the following:

“Text recycling, also known as self-plagiarism, is when sections of the same text appear in more than one of an author’s own publications... Use of similar or identical phrases in methods sections where there are limited ways to describe a common method, however, is not uncommon. In such cases, an element of text recycling is likely to be unavoidable in further publications using the same method.”<sup>77</sup>

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<sup>76</sup> To understand the importance of this last assumption, consider a manuscript in which the recycled material both includes central findings from the prior work and in which these "old" findings are represented as findings of the new work. It is, we believe, safe to say that capable STEM editors (and the scientific community in general) would judge the new work as insufficiently original to merit publication as a research article. Note also that this judgement would hold regardless of whether any text was recycled or whether the reused material was rewritten to avoid verbatim duplication of the prose. Given that such a manuscript is unworthy of publication based on its intellectual merits, considerations of fair use are moot: the editors should reject the manuscript and needn't be concerned with determination about the copyright status of the recycled material.

<sup>77</sup> BioMed Central. How to deal with text recycling (2013). [http://media.biomedcentral.com/content/editorial/BMC-text-recycling-editorial\\_guidelines.pdf](http://media.biomedcentral.com/content/editorial/BMC-text-recycling-editorial_guidelines.pdf).

We therefore focus our analysis first on reuse of methods material. In particular, we specify the “use” in our basic scenario as follows:

The methods section of Paper B includes recycled prose (words) from the methods section of Paper A. This prose includes text describing the research design, equipment used, materials selected, and a variety of variables. The recycled material represents 50% of the methods sections of both articles.

Our hypothetical authors, having transferred their rights for Paper A to Publisher A, now seek to republish portions of the methods section of Paper A in a journal owned by Publisher B. Absent some explicit permission such as a license, reproduction and distribution of that material would indeed infringe the rights of Publisher A—unless fair use obtains.

### **Analysis of our hypothetical under the four factors**

Under the first factor, “purpose and character of the use,” we first observe that our authors’ use is for research and scholarship and also that it is non-commercial, both of which are in favor of the use, though neither is necessarily dispositive in the overall determination. Looking more specifically at the material used, the methods section of a research article serves a functional purpose: explaining how the research was conducted—which is necessary for readers in understanding and evaluating the findings of that research explained later in that article. This also favors the use.

Additionally, there are good reasons to believe the use is transformative. Though the text itself has not changed, reuse of identical content can still be transformative.<sup>78</sup> While there is no existing caselaw that addresses this specific scenario, the legal rationale that adding a “new expression, meaning, or message” is a transformative use applies here. In our scenario, the copied methods material as used in Paper B is in furtherance of a new scholarly purpose; the particular text reused is the functional mechanism by which the basis for the new findings is explained. The purpose of the methods section in Paper A was, fundamentally, to allow the reader to understand and evaluate the analysis and conclusions of Paper A. The purpose of the methods section as reused in Paper B is substantively different; to allow the reader to understand and evaluate the analysis and conclusion of Paper B. The editors and reviewers were familiar with Paper A and yet judged Paper B to be sufficiently original as to be worth publishing in their journal. This editorial decision is, fundamentally, an expert judgement that the purpose of the new work is distinct from the prior work—that is, that the use is transformative.

We note that while our scenario is described in terms of reusing materials from a specific section of an article called Methods, what matters for the fair use analysis is not the actual labeling of the sections but the rhetorical function of the recycled materials. Many scientific research articles do not use these particular section headings; thus sections presenting methodology and background materials may have other labels. In addition, methodological or technical descriptions or information are often found scattered in various sections of a research article.

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<sup>78</sup> A.V. ex rel. Vanderhye v. iParadigms, LLC, 562 F.3d 630, 639 (4th Cir.2009) (holding a use making an exact copy of a student's paper for the purpose of determining whether it included plagiarism is a fair use); Swatch Group Mgt. Services Ltd. v. Bloomberg L.P., 756 F.3d 73, 84 (2d Cir. 2014); Brandon Butler, *Transformative Teaching and Educational Fair Use After Georgia State*, 48 Conn. L. Rev. 473 (2015) (arguing that copying with no physical alteration for classroom use can be transformative).



Looking, next, to the second fair use factor, “nature of the work,” reuse of material from the methods section should weigh heavily in favor of fair use. The second factor, as noted above, is rarely significant in the fair use analysis; but given the highly factual and functional nature of a methods section, it should take on more weight in this case. STEM research articles are likely always sufficiently “creative” to merit copyright protection generally;<sup>79</sup> however, on a spectrum of factual to creative, research articles tend to skew toward the factual. In only a handful of cases have courts been asked to characterize publications like those at issue here in the context of a fair use analysis—but at least one such court has concluded that for a group of STEM publications at issue in a patent dispute, those works “primarily communicate[] factual and scientific information, and therefore [are] subject to less protection than expressive works, such as poems, songs or fictional works.”<sup>80</sup> Beyond that general characterization, methods sections in particular serve a functional role – they are the textual explanation of the set of instructions and procedures that explain the process for conducting the research. While there may be other ways to express that same methodology, the options are likely limited. As we noted above, courts have found that “[t]o the extent that a work is functional or factual, it may be copied . . . as may those expressive elements of the work that ‘must necessarily be used as incident to’ expression of the underlying ideas, functional concepts, or facts.”<sup>81</sup>

As for the third factor, amount and substantiality, we stipulated that the reused material consists only of prose from Methods, limited to 50% total. Regarding amount: In a typical research article, the methods section typically constitutes a small proportion of the whole, and our authors are recycling only half of that. Moreover, as part of the third factor analysis for transformative uses, courts look to assess if the amount used was more than necessary to accomplish that purpose. For reuse of methods, it is often the case that replication of some specific text is entirely necessary; it is desirable to maintain consistency across multiple publications, to make clear that that part of the methodology was not altered from one study to another. As for substantiality: methods are rarely the intellectual “heart” of such a work, as their rhetorical function is to explain the process by which the research was conducted and make the case that the findings laid out in latter sections.<sup>82</sup> Taken together, the amount and substantiality aspects of Factor 3 in this scenario weigh in favor of fair use.

As to the fourth factor, “market harm,” the market for a scientific article is rather different from that of, say, a novel or a film. For one thing, very few individual research articles (particularly those for which there is not free access) attract many readers, as most are intended for a small audience of subspecialists. For another, while potential readers may have the option to purchase an individual article, the primary economic consumers by far are libraries—who rarely purchase individual articles but subscriptions to journals, and the vast proportion of readers access articles through such subscriptions as members of the library’s institution. Thus, even if Paper B did contain much of what Paper A had to offer, the substitutionary effect on the market for the publisher would be trivial. Also, under our assumptions, Paper B offers a new,

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<sup>79</sup> *But see*, *Ho v. Tafllove*, 648 F.3d 489, 498 (7th Cir. 2011) (finding no infringement in reproduction of a model because the court concluded that the model was not protectable).

<sup>80</sup> *Am. Inst. of Physics v. Winstead PC*, 3:12-CV-1230-M, 2013 WL 6242843, at \*9 (N.D. Tex. Dec. 3, 2013).

<sup>81</sup> *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F. 2d 1510 (9th Cir. 1992).

<sup>82</sup> Clearly this would not hold for “methods papers” which are not uncommon in some scientific fields. Such cases do not fit the typical research article scenario we are discussing here. However, the same overall reasoning in terms of “heart” and portion would obtain.

distinct, and valuable contribution beyond what was offered in Paper A. Therefore, it is unlikely that access to Paper B would diminish the market for Paper A. In fact, as long as Paper B cites Paper A<sup>83</sup>, it is entirely plausible that the circulation of Paper B might increase the market for Paper A—drawing new attention to and interest in the precursor work. Finally, while some scholarly work in the humanities may become more relevant over time, most interest in scientific articles readily declines soon after publication. By the time that Paper B is published, most of those who are likely to read Paper A—specialists in the field—would have already read it.<sup>84</sup>

## Beyond the four factors

When ruling on copyright-related cases, courts have generally relied on the four-factor test—weighted heavily on factors 1 (purpose and character of use) and 4 (market harm). But since intent might be considered in a text recycling infringement suit, we want to understand how this would play out for our test case.

Given that Paper B is a novel report of scientific research, it is published in a scholarly journal, and the author receives no direct monetary benefit, courts would undoubtedly see our authors “scholars” rather than “chislers.” One might argue that the intent was to bolster the authors’ CVs and thus acquire undeserved promotion or accolades. But given that the new work is acknowledged by experts to make a fundamentally novel contribution, this argument seems absurd. Expediency may have been a motivation, if recycling material from Paper A made it possible for the authors to do more research and thus produce more articles. But since U.S. copyright protections (unlike those of some other nations) are fundamentally intended to foster creative productivity, even this motivation supports fair use.

As noted above, if a court should consider intent, the matter of attribution may also be raised—as a possible indicator of intent. Note that our scenario does not state whether Paper B cites Paper A; this is intentional. While guidelines on text recycling frequently state that a citation is necessary for ethical practice, the presence or absence of a citation has little bearing on whether this use is fair. It is, in fact, only a minor consideration of a minor consideration.<sup>85</sup> That said, the inclusion of a citation to the source of recycled material will, if anything, only bolster the fair use case.

## Finding fair use

Having analyzed, independently, each the four fair use factors and other relevant considerations and found that each favors the use, we consider briefly how the factors balance together “in light

<sup>84</sup> The substitutionary effect of the use on a potential licensing market for the original work is a more complicated analysis, tied up in details about the rights that are sometimes routinely granted back to authors in their publishing contracts, as well as blanket permission agreements such as those embodied in the STM Permissions Guidelines. Publishers do sometimes license reuse of small amounts of content, for example, through the Copyright Clearance Center. However, while a licensing market may exist for reuse for some articles, the presence of that option does not negate an un-permissioned use that is otherwise transformative.

<sup>85</sup> Even so, the requirement that all recycled text be cited is not universal, as there is some debate as to whether citing one’s own prior work might sometimes result in excessive self-citation. See American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association; Committee on Publication Ethics. *Citation Manipulation* (July, 2009).

[https://publicationethics.org/files/COPE\\_DD\\_A4\\_Citation\\_Manipulation\\_Jul19\\_SCREEN\\_AW2.pdf](https://publicationethics.org/files/COPE_DD_A4_Citation_Manipulation_Jul19_SCREEN_AW2.pdf)

of the purposes of copyright” to promote the progress of science and the arts. As the U.S. Supreme Court has explained, “The limited scope of the copyright holder's statutory monopoly... reflects a balance of competing claims upon the public interest: Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts. The immediate effect of our copyright law is to secure a fair return for an `author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good.”<sup>86</sup>

STEM authors are not incentivized by the economic returns that copyright affords, so reuse of their own texts is unlikely to disincentivize creating new works; if permitting reuse has any effect at all on production, it seems more likely to make production of new research articles easier. One of the reasons STEM authors may elect to recycle text is expediency: when writing about two or more studies that use the same methodology, reuse of the same methods text is easier and more efficient,<sup>87</sup> arguably allowing for resources to be devoted to the research itself rather than the rewriting of essentially functional text. STEM authors also may reuse text to provide clarity and consistency in the explanation of the research process, which aids communication and reproducibility, ultimately benefitting society by ensuring that published research is sound. Neither of these motivations undercut incentives for creation, and in most cases may actually enhance author productivity as well as broader public benefits.

In sum, the factors individually weigh in favor of the use, and balanced together in light of the purposes of copyright, seem to achieve its underlying objectives. Our basic scenario, then, should be considered a clear case of fair use.

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<sup>86</sup> *Fogerty v. Fantasy* 510 U.S. 517, 526-27 (1994) (quoting *Twentieth Century Music Corp. v. Aiken*, 422 U. S. 151, 156 (1975)).

<sup>87</sup> This is especially true for researchers who are not native speakers.

## 5. Variations on the basic scenario: recycling introductory material

While the STEM research community is most accepting of text recycling when it involves reuse of methods-related material, other reuse may also be acceptable—particularly introductory or background material. According to COPE’s Guidelines on Text Recycling<sup>88</sup>,

Some degree of text recycling in the background/ introduction section of an article may be unavoidable, particularly if an article is one of several on a related topic. Duplication of background ideas may be considered less significant or even considered desirable, contrasted with duplication of the hypothesis, which will only be appropriate in very closely related papers. Editors should consider how much text is repeated verbatim, and whether the original source is cited (although editors should note that citing the source is not a justification per se).

If our scenario places the recycled material in the Introduction rather than Methods, does this change fair use standing? As we now show, it does not.

### *Variation 1: Introduction Reuse*

The introduction section of Paper B includes recycled prose (words) from the introduction section of Paper A. This includes material common to both articles including background on the research problem, discussion of pertinent literature, and definitions and terminology. The recycled material represents 50% of the introduction sections of both articles.

The changes defined for Variation 1 do not alter the condition that Paper B presents substantively novel research. This use is transformative for the same reasons that the use of Methods is transformative: the recycled material serves a new purpose in supporting the distinct analysis and conclusions of Paper B (Factor 1). As for Market Harm (Factor 4), there is no difference. And because Variation 1 involves only a change in the type/location of recycled material and not the type of work (genre), the main thrust of the Nature of the Work (Factor 2) analysis remains the same. Since material in the introduction is less clearly “functional” in nature than that of Methods, recycling in the former is perhaps marginally less favored under this factor; however, that difference seems minimal in light of the otherwise highly factual nature of the overall work.

Analysis of Variation 1, then, requires reconsideration only of Factor 3, Amount and Substantiality. The lengths of Introduction and Methods sections of scientific research articles vary tremendously; a “letter,” “note,” or “short report” in the physical sciences may be only a printed page or two, while a full-blown research article in the social sciences may run more than 50 pages. Yet regardless of the overall length, the Introduction will, by definition, play a supporting role. We thus expect the introduction to comprise a small proportion of the whole; thus the “amount” should be proportionally low.

As for substantiality, the supporting nature of the introduction also means that it does not constitute the heart of the work. Nonetheless, because the introduction to a scientific article typically describes the novelty of the new work and in some fields may also include a statement of major findings, recycling of these materials may raise concerns about the substantially

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<sup>88</sup> Committee on Publication Ethics. 2017. Text recycling guidelines. <https://publicationethics.org/text-recycling-guidelines>.

aspect. In their rhetorical analysis of the introduction section of the contemporary scientific research article, Swales and Najjar<sup>89</sup> identified these standard “moves”:

- Introduce the topic; establish that the research area is of significance
- Selectively summarize relevant prior research
- Show that prior research is incomplete by articulating a gap that research
- Explain how the current research helps to fill the gap

Because Paper B in our scenario builds directly on the work described in Paper A, the general research topic is similar and there is overlap in relevant research to be reviewed. We therefore expect overlap in Moves 1 and 2, but recycled material in these parts of the introduction to Paper B do not compromise its novelty. As for moves 3 and 4: Because the work presented in Paper A is now part of the relevant prior research, we would expect Paper B would include a summary of Paper A. But in Paper B, this would occur in Move 2 rather than in the latter two moves which announce the original contribution of the article.

Ultimately, we have taken care in the definition of our basic scenario to establish that any recycled material does not diminish the novelty of the new work. Thus, any reasonable use of recycled material in the introduction of Paper B would neither reproduce nor represent the “heart” of Paper A as such. We see, therefore, no reason to expect Variation 1 to be ruled differently from our initial scenario.

To complete our analysis, we consider one other variation on our scenario, this one including recycling in both the Introduction and Methods sections:

*Variation 2: Introduction Plus Methods Reuse*

The material recycled from Paper A to Paper B includes 50% of Methods and 50% of the Introduction, as described above.

The difference here is in the “amount” aspect of Factor 3, as Paper B now includes both more total recycled material and a greater portion of Paper A than in Cases 1 or 2. Nonetheless, the “substantiality” aspect of Factor 3 is unchanged since the recycled material still doesn’t include the “heart” of Paper A. The other three factors are unaffected. While this scenario might present a slightly weaker claim of fair use than Cases 1 or 2, the net consideration of all four factors retains a strong overall fair use claim.

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<sup>89</sup> Swales, J., & Najjar, H. (1987). The writing of research article introductions. *Written Communication*, 4(2), 175-191.

## 6. Conclusions and Implications

In practice, authors and editors are those who must grapple most closely with the question of how fair use applies to text recycling. Again, separating the ethical and professional question from the legal question is critical. As stated above, the ethics of text recycling vary by circumstances, but are increasingly thought to be permissible and even preferable as a matter of professional ethics, such as those outlined by COPE<sup>90</sup>—it is.

The legal question of whether fair use is permissible as a matter of copyright law is separate. We believe here are good reasons to believe that text recycling at least in the scenario outlined above is fair use. If it is, how should this affect how authors, editors, publishers, and universities behave?

For editors and publishers, we recommend taking a close look at editorial practices and evaluating what is motivating any expressed restrictions on reuse of text from an author's prior publications. As a practical matter, publishers and editors are often the only parties who are in a position to raise legal challenges. To date, no publisher that we are aware of has brought a copyright infringement lawsuit over text recycling. Given the prevalence of the practice in some fields, it would likely be disadvantageous for publishers to do so given that most have published considerable amounts of recycled materials themselves.<sup>91</sup> Yet, publishers and editors operate in the shadow of concern over legal liability. This can lead to their misstating the reach of their own copyright transfer agreements,<sup>92</sup> or publicly conflating the ethical dimensions of text recycling with the legal dimensions.<sup>93</sup>

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<sup>90</sup> Committee on Publication Ethics. 2017. Text recycling guidelines. <https://publicationethics.org/text-recycling-guidelines>.

<sup>91</sup> Some publishers have, however, demanded that full articles shared by authors be taken down from research sharing sites such as ResearchGate. In 2017, Elsevier reportedly sent ResearchGate 100,000 takedown notices, presumably using automated matching to identify content to which Elsevier owns rights. Robert Harrington, ResearchGate: Publishers Take Formal Steps to Force Copyright Compliance, *Scholarly Kitchen*, Oct. 6, 2017, <https://scholarlykitchen.sspnet.org/2017/10/06/researchgate-publishers-take-formal-steps-force-copyright-compliance/>. In other areas of copyright law, automated content identification systems have been used in conjunction with the DMCA “Notice and Takedown” system to remove works that contain even partial copies of copyrighted works. We have no evidence that such automated means would be used to target works that contain partially copied texts, but they certainly could as such content is identifiable. See, for example: Ian Anson, Cary Moskovitz & Chris Anson. A Text-Analytic Method for Identifying Text Recycling in STEM Research Reports. *Writing Analytics*, Vol. 3, 2019.

<sup>92</sup> From “The ethics of authorship and preparation of research publications,” Carole R. Engle, *JWAS* Editor in Chief: “Some authors attempt to argue that self-plagiarism is not plagiarism in that the writing is ‘theirs,’ and they are not stealing the ideas of another. Such comments ignore the fact that those authors signed a copyright agreement with the publisher of the original article in which the publishing rights belong to the publisher, not the author. . . . Do self-plagiarizing authors simply not read the copyright agreements that they sign to have their articles published, or do they blatantly ignore the agreements signed?” <https://www.was.org/articles/The-ethics-of-authorship-and-preparation-of-research-publications.aspx#.XufIQS2ZM64>

<sup>93</sup> For example: “It is unethical for an author to copy text, figures, or tables (i.e., plagiarize) from other work without attribution. Even self-plagiarism (or autoplagerism), defined as copying from previous work by the author, could be considered unethical as it may involve copyright infringement...” AMS Policy on Plagiarism and Self-Plagiarism (Editorial February 2015), American Meteorological Society <https://www.ametsoc.org/ams/index.cfm/publications/authors/journal-and-bams-authors/author-resources/author-disclosure-and-obligations/plagiarism/>



We also recommend that publishers carefully separate the ethical and legal considerations of text recycling in their publishing guidance to editors and to authors. To the extent that current practices are motivated by a concern about the legality of the practice, we also recommend that U.S.-based publishers enhance training for editors about the application of fair use to text recycling.

Similarly, for universities, and in particular research integrity offices, internal policies about research misconduct should reflect that copyright law, at least in these circumstances, should not be grounds for finding research misconduct. Those same offices, which are often charged with both enforcement and educations such as through RCRs, may also seek to better educate PIs at their institutions about the distinctions between the ethical and legal considerations of text recycling.

Authors are somewhat at the mercy of the policies of the journals that they publish in. Authors should always comply with the contractual terms of their publication agreements as well as their institutional or funder-stipulated research ethics guidelines. Authors should remember, however, that they are rightsholders of their original manuscripts and may be able to negotiate the terms of their contracts to preserve their fair use rights prior to publication.<sup>94</sup> However, to the extent that those contracts and guidelines already allow flexibility for text recycling (something authors should confirm by studying those policies), authors should be prepared both to analyze their reuse under the fair use framework we provide above, and to explain that analysis to journal editors.

Finally, it is important to note that fair use represents only one part of the legal analysis. Most publications are governed by contract terms that can supersede copyright law, including fair use. In addition, fair use is not available in every jurisdiction and so is inappropriate as a basis of reuse policies globally. In a companion to this paper, we will address the challenges and opportunities related to text recycling in publishing contracts.

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<sup>94</sup> The Scholarly Publishing and Academic Resources Coalition (SPARC) provides a model author addendum for authors to help them negotiate rights with publishers. That model addendum already includes rights that would allow for text recycling in many cases, though it may be useful for SPARC to consider making such reuses rights for text recycling explicit. See SPARC Author Addendum, <https://sparcopen.org/our-work/author-rights/#addendum>.

### A Note on Plagiarism and Citation

Little of the analysis in this paper specifically addresses the reuse of one's own published material. In fact, a finding of fair use for the scenarios considered in this paper largely apply to the reuse of material from the work of others. The reason that authors of scientific research articles should not reuse the work of other's in the ways described in our scenarios is not a legal (at least not in the U.S); rather, it is because such use is widely considered plagiarism and thus unethical or otherwise improper. While not illegal in the U.S., plagiarism is identified by the U.S. government as one of the three principle forms of scientific misconduct.\*

Similar confusion exists on the relationship between attribution and copyright. There is a widespread misconception that the addition of a citation makes use legal. But citation is not relevant in determining whether a use is fair—because authors, under U.S. law, have no right of attribution. Editors and authors should understand that under U.S. law, concerns about possible infringement cannot be addressed by the addition of a citation.

Unfortunately, confusion on these matters appears to be widespread, even among editors of scientific journals. While confusion on these issues may be due, in part, to differences regarding attribution rights among nations, it is more likely due to the continued, informal spread of erroneous information. We take pains here to correct these misunderstandings, as those who understand this will be better able to address plagiarism in policy and practice.

\*Department of Health and Human Services. (2005). Public Health Service policies on research misconduct: Final rule (42 CFR Parts 50 and 93). *Federal Register*, 70(94), 28370-28400.