INTRODUCTION
Researchers, especially those in science, engineering, and medicine fields, often have occasion to reuse material from their previously written documents in new documents. Examples of such occasions include reusing passages from one’s IRB protocol in a grant proposal, reusing literature review material from a grant proposal in a research article, reusing the description of an experimental apparatus from a research article in a new article that used the same apparatus, and reusing material from one’s published article in one’s dissertation. Researchers may also have occasion to translate their published work into another language or to rework material from an existing piece to fit a different context. All of these examples can be considered cases of text recycling.

Unlike plagiarism, which is widely considered to be scientific misconduct, text recycling may be ethical or unethical depending on how and where it occurs. In some contexts, text recycling is ethical, professionally appropriate, legal, and may even be desirable for clear communication. In other situations, text recycling may be unethical or professionally inappropriate because it infringes copyright, violates a publishing contract, or inhibits communication.

A number of different but intertwined factors can affect whether or not any instance of text recycling is appropriate. These include authorship, prior dissemination or publication of the original document, the amount and nature of recycled material, and the centrality of that material to the original document. These matters are discussed below in the section Additional Considerations.

We note here that this document is primarily aimed at editors of research journals. Editors who deal with other types of manuscripts will find that most of the principles described here will apply to those contexts as well.

This guide is a product of the Text Recycling Research Project (TRRP), a U.S.-based multi-institution initiative funded by the National Science Foundation. While some of the issues addressed here are not universally agreed upon, this document is based on published research conducted by the TRRP (including surveys of and interviews with journal editors) as well as guidelines from a number of leading organizations of editors and publishers. These are listed under References at the end of the document.

TERMINOLOGY
Defining Text Recycling
Policies and guidelines that address text recycling often use the term “self-plagiarism.” However, that term is confusing. Unlike plagiarism, text recycling doesn’t involve taking someone else’s work or ideas and passing them off as your own. Also, unlike plagiarism, there is wide agreement that reuse of your

own materials is sometimes acceptable. To avoid these inaccurate implications, the term *text recycling* is now widely preferred. The Text Recycling Research Project defines text recycling as follows:

*Text Recycling is the reuse of textual material (prose, visuals, or equations) 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.*

*Source and Destination documents*
Text recycling always involves at least two documents: the document(s) from which the material is taken and the one(s) in which that material is placed. Because the ethics and legalities of text recycling depend substantially on the nature of these documents, consistent terms are needed for these as well. We use the terms *source* and *destination*.

**TYPES OF TEXT RECYCLING**

There are a number of distinct situations in which researchers might recycle material. Whether any instance of text recycling is ethical or legal depends in large part on the situational context. The table below presents four categories of recycling which are discussed at greater length later in this document. The flowchart below shows how to identify the type of recycling you may be considering.

*Developmental recycling* is the reuse of material from unpublished documents. This is common in research and generally considered acceptable.

*Generative recycling* is the reuse of portions of a previously published document in a new work that makes an original intellectual contribution clearly distinct from that of the source. Whether it is ethical or legal depends on the specifics of the case.

*Adaptive publication* is the republication of an entire document or of its central part(s), but modified to fit a different context. The new context may, for example, be different in the target audience (different language or expertise) or genre. Whether this is ethical or legal depends on obtaining publisher permission and transparency with editors and readers.

*Duplicate publication* is the publishing of a work that is the same in genre, content, and intended audience as a previously published source document. This is widely considered unethical; in most publishing situations it would be illegal as well—whether as copyright infringement or a violation of author-publisher agreements.
The sections below provide more information on each type of recycling.

DEVELOPMENTAL RECYCLING

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Recycling material from unpublished documents produced as part of the research and writing process</th>
</tr>
</thead>
</table>
| Examples    | • Reusing material from a conference talk or poster in a journal article  
|             | • Reusing material from a grant proposal in a conference poster |
| Is this ethical? | Usually. Exceptions may occur when the source is widely available. |
| Is this legal? | Usually, unless the source document was produced under a “work-for-hire” arrangement, in which case you would need to obtain written permission from your employer. |

While developmental recycling involves the reuse of unpublished material, what publishers or disciplines consider to be “published” can vary. Though this guide uses “published” and “unpublished” as a simple binary to make important distinctions among categories, some genres which are not formally published through traditional mechanisms may still be widely available and contribute to knowledge in the field and thus may be viewed by some publishers as previous publication. Common examples of such genres are conference proceedings, preprints, and dissertations, which are discussed in the Publication Status section below.

Developmental recycling most often involves workplace documents or “work-in-progress” documents.

Workplace documents
Researchers routinely produce documents that are essential for the research but are shared with only a limited set of readers. Common examples of these “workplace” or “internal” documents are ethical review protocols, grant proposals and reports, and conference proposals. Recycling to or from such documents is widely considered both ethical and appropriate. Because these genres are not published, there are generally no legal concerns for editors as long as the source documents were not produced as work for hire. In the case of grant proposals, editors should instruct authors to clearly indicate where any recycled material is included and include a reference to the source—whether a published paper, a prior proposal, or other document.

Work in progress
In most research fields, sharing one’s work in progress (conference posters, presentations, and abstracts) is widely practiced, accepted, and even encouraged as a valuable part of the research process. In some fields, it is considered good practice to include a note stating that previous versions of the work were shared publicly and listing the dates and place(s) where that was done. If the documents were produced in a work-for-hire arrangement, however, editors should instruct authors to obtain permission to recycle these from their employer.
GENERATIVE RECYCLING

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Recycling published material in a new work that offers a substantive and original intellectual contribution</th>
</tr>
</thead>
</table>
| Examples | • Reusing the description of an experimental method from your published article in a new article  
• Reusing summaries of prior research from your published article in a new article |
| Is this ethical? | It depends on the amount and kind of recycled material and also whether the author was transparent with both editors and readers |
| Is this legal? | It depends on whether the amount and kind of recycled material infringe copyright and/or violate any publishing agreement you signed with a publisher. Limited recycling of methods or background material is likely legal under U.S. copyright law as a “fair use.” |

While each successive publication in a line of research is required to present substantive original findings, scientists and engineers often need to communicate some of the same content across multiple papers. As a result, scientists frequently have occasion to reuse material from a prior published paper in a new manuscript intended for publication. “Generative recycling” is the use of recycled material from one’s previously published papers—whether verbatim or slightly altered to fit the context of the new work—in a new manuscript which offers original, substantive findings. While the boundaries of ethical practice for generative recycling are somewhat contentious, limited recycling of certain types of materials is widely considered acceptable when needed to accurately present new findings. Common examples include descriptions of methods, materials, or statistical tests; background information; and discussion of prior relevant research. It may also be useful to recycle diagrams, maps, and other illustrations in Introduction or Methods sections when needed to establish context, terminology, geometry, and so on which the new work has in common with the prior publication.

Publisher contracts and guidelines set different limits on the amount and type of generative recycling allowed. Publishers, for example, may place limits on the quantity of recycled material or the type of material or section in which it occurs. Editors should know the limits that apply for their journal and should also consider whether authors have been transparent about the recycling. (See “Attribution and Transparency” below.)

Alternatives to Generative Recycling

Editors often encourage authors to avoid generative text recycling altogether and instead rely on other options. Editors might take this approach because they have concerns about possible copyright infringement or because they believe it’s unethical to recycle any text that has been written and shared with others. As alternatives to text recycling, editors might ask authors to quote themselves, paraphrase passages from their prior writing, or condense the material in a summary and refer readers to the source document for details. While each of these options can sometimes be effective and ethical, they are often inadequate substitutes for generative recycling, as explained here.

Quotation

Two aspects of quotation make it an inappropriate alternative for many text recycling situations. First, quotations draw attention to themselves. Writers generally place a passage in quotation marks when they want to highlight those exact words and mark them as borrowed text, usually from a different
author. Readers of scientific texts could easily be misled by quotations that are intended only to mark a passage as having been recycled from a source document by the same author(s).³

Second, researchers rarely recycle single, contiguous blocks of text. Instead, they tend to reuse various parts of paragraphs, scattered sentences, and clauses that fit the needed tasks in the new work. Few editors of research journals would be willing to accept multiple sets of quotation marks scattered throughout a paper. Making matters more complicated, recycled passages aren’t always repeated verbatim. Instead, authors often make small changes to adapt the material to the new context. Putting such passages in quotation marks would be misleading to readers. Ultimately, quotations are not a good fit for recycled material in many typical cases.

*Rewording*

Editors may require authors to reword recycled material because they believe that the unquoted, verbatim replication of material is inherently unethical. Rewording passages from source texts may indeed be appropriate when the text is being meaningfully adapted to fit a new context, genre, or audience. However, superficial rewording may actually be less ethical than recycling, as it merely disguises the recycled material from readers. Policies that require authors to be transparent when recycling text are preferable to policies that promote the obscuring of reuse.

In addition, when authors alter the wording of recycled passages for the sole purpose of making them superficially different, they may make it difficult for readers to discern which aspects of the studies were altered and which were kept constant. Because the vast majority of research articles are published in English, such confusion is likely amplified when authors or readers are non-native speakers of English.

*Summarizing and referring readers to source documents*

When the recycled material consists of a single, contiguous block of material describing a particular method, process, or apparatus, it may be preferable to provide only a brief summary or paraphrase of that material and refer readers to the source document for details. Many editors, however, prefer that articles published in their journal be self-contained—especially if the source document is behind a paywall.

**ADAPTIVE PUBLICATION**

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Recycling published material containing the work’s central content—but for a different readership, genre, or context</th>
</tr>
</thead>
</table>
| Examples    | • Reusing material from your published journal article in an opinion column, blog, or magazine article on the same topic  
• Translating your published article into another language |
| Is this ethical? | Only if authors are transparent with both editors and readers per publisher guidelines |
| Is this legal? | Only if authors obtain permissions from the holder of rights for the source (usually the publisher of the source) |

Researchers sometimes choose to adapt a published document in order to reach a different audience. Examples include translating one’s published article into a different language, adapting an article to make it accessible to readers in a related field, combining published papers into a dissertation, and revising an article into a book chapter. Whether editors accept such adaptations will depend first on

³ In addition, quotation marks only make sense if accompanied by a citation; but while adding a citation for this purpose might reduce potential accusations of “self-plagiarism,” it might also raise concerns about excessive self-citation.
journal policies and second on whether authors are appropriately transparent and obtain required permissions. In general, authors who wish to republish or adapt a published work should be expected to (1) get explicit, written permission from both the source and destination publishers and (2) be clear and transparent with readers by clearly and explicitly stating the relationship between the new work and the prior work.

As with generative recycling, there are also potential copyright issues related to adaptive recycling, which are discussed below.

### DUPLICATE PUBLICATION

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Recycling published material along with the same primary content for the same audience and genre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples</td>
<td>• Submitting a published article to another journal as a new work&lt;br&gt;• Superficially changing a published article and submitting it to another journal as a new work</td>
</tr>
<tr>
<td>Is this ethical?</td>
<td>Rarely, because it usually entails an intent to deceive and because it distorts the scholarly record</td>
</tr>
<tr>
<td>Is this legal?</td>
<td>Rarely, because it likely infringes copyright and/or violates publishing agreements</td>
</tr>
</tbody>
</table>

If authors reuse both the core ideas and textual material from their already published work in another published work without meaningful transformation, the result is essentially the same—a duplicate. Submitting one’s already-published manuscript to another journal is widely considered unethical and would also likely constitute copyright infringement and violate the author-publisher contract of most journals. It is equally unacceptable to reuse the same essential content but change the writing in superficial ways (substituting synonyms, rearranging phrases, and so on) to deceive editors and readers into believing that the duplicate work is in fact new work.

### ADDITIONAL CONSIDERATIONS

Many existing policies on text recycling overlook key issues that play important roles in determining whether or not a specific instance of text recycling is appropriate or inappropriate. Among these issues are overlapping authorship, how best to cite or acknowledge the presence of recycled material in a destination document, and differing views about whether or not a source document has been published. We address these matters in this section.

### AUTHORSHIP

By definition, text recycling involves reusing one’s “own” work. In some fields of scholarship—philosophy and music, for example—most authors write alone. However, in many disciplines—especially science, engineering and medicine—the vast majority of publications are coauthored, usually with more than two authors and frequently with the number of authors in the tens or more. When the authors of the source and destination documents are identical, multiple authorship adds no complications for text recycling.

But when the authors of the source and destination documents are overlapping but not identical—which is often the case—determining what constitutes one’s “own” prior work for the purposes of text recycling becomes more complicated.

---

4 Some journals, such as those published under a Creative Commons license, let authors retain the rights to their work. Even so, while submitting that published paper to another journal may not infringe copyright, it will most likely violate the contract of the next publisher.
recycling can be complicated, raising important questions about author rights and responsibilities. In many research fields, there may be a tacit understanding that researchers have the right to recycle from source materials produced by research groups—as long as the destination documents are also a product of that group. This is a straightforward matter for works produced by formal, named research groups such as CERN (particle physics) or the RTS,S Clinical Trials Partnership (malaria vaccine research), since both the source and destination documents would list the group name as the “author.” In contrast, research in academic labs is usually conducted under the supervision of a stable principal investigator but with a fluctuating set of collaborators and co-researchers; in this setting, matters of attribution and permission are less clear.

Legally, under U.S. copyright law, all listed authors of a work hold equal copyright (and can thus reuse their published material without consent of the other authors) unless some other arrangement is made prior to publication; the same is generally true for the laws of most countries. Ethically, however, there are no established standards for deciding which authors of the source document should have recycling rights or who should be asked for permission. Given this lack of standards, the TRRP recommends that corresponding authors obtain permission from any authors whose work is being recycled but who are not authors of the new work.

ATTRIBUTION AND TRANSPARENCY

Expectations for attribution and transparency of text recycling vary markedly depending on the type of recycling. For developmental recycling, citing the sources of recycled material is not usually expected since those unpublished documents are not generally available to readers. For adaptive recycling, attribution and transparency are essential to ethical practice. First, authors need to be transparent with the editors of both the source and destination documents—obtaining permission from the former and making certain that the latter is aware that the “new” manuscript consists largely or entirely of previously published material. Second, authors need to be transparent with readers by clearly announcing in the text that the work is derivative and citing the prior work. Such transparency between authors/editors and authors/readers should be an ethical norm with all forms of adaptive recycling, not merely because it is a conventional and expected practice in scholarly publishing but also because legal matters related to copyright, contracts, permissions, and attribution will be important considerations in any new publishing agreement.

For generative recycling, matters are much more complicated. Unlike adaptive recycling, the destination document will contain only selected portions from the source, and there is no consensus on whether or how readers should be alerted to the presence of recycled material. And unlike developmental recycling, the quantity and nature of recycled material are key factors in determining whether any instance of text recycling will be appropriate or legal. Adding to these complications, authors who include citations solely for the purpose of referencing the source of recycled material may face accusations of excessive self-citation—especially since citing oneself for this purpose is unconventional.

Even so, editors should require authors to indicate upon submission where generative recycling occurs in their manuscripts and provide citations to the source documents. Editors will then be able to discuss attribution strategies with authors and make informed decisions about whether and how a particular passage of recycled material should be marked for readers in the destination text.

PUBLICATION STATUS

In general, recycling material from unpublished sources is considered acceptable regardless of whether the new work will be published. That said, opinions about what counts as prior “publication” can vary by

---

An exception is a student’s thesis or dissertation. As solo-authored documents, students may only be allowed to recycle from published documents for which they were the first author.
publisher and discipline. The Internet has enabled authors to easily provide access to their documents for, potentially, millions of readers, complicating our sense of what constitutes “published” material. Journal editors may or may not consider the sharing of new ideas, methods, or findings in online genres like blogs (e.g., WordPress sites), long-form online writing (e.g., Medium), newsletters (e.g., Substack), and microblogging (e.g., Twitter) to be “prior publication.” Also, because some research materials may be stored in widely accessible online locations such as research group websites, publication repositories, and data-sharing storage, some editors and publishers may consider these to be unacceptable sources of recycled material.

Conference proceedings
This genre causes some confusion because of disciplinary differences in publication status. In some research disciplines, proceedings papers have DOI numbers and are publicly accessible but lack the status of a journal article. Authors in these fields often use these proceedings as the basis for journal articles, revising and/or adding additional material as required by the journal. In fact, many scholarly societies explicitly invite authors of proceedings to submit proceedings papers to their journals expecting that most of the proceedings document would be recycled. If the proceedings paper is published by a different organization, authors would need permission from the source publisher to submit the proceedings paper as an article.

In other disciplines, such as computer science, conference proceedings are the final level of scholarly work—equivalent to a journal article in review process and status. In these fields, wholesale recycling from a proceedings paper to a journal article (or to another proceedings) would be unethical.

Editors should be aware of these differences and require authors to indicate whether their manuscripts have previously appeared as conference proceedings.

Preprints
Preprints allow researchers to lay claim to new findings without waiting for peer review and publication and obtain feedback from members of their scholarly community. Placing manuscripts on preprint servers has become standard procedure in many STEM fields, but the practice is not normative in others. Thus, some journals will accept manuscripts that have been placed on preprint servers while others will not. Regardless of the journal’s stance on preprints, editors should ensure that their journals have explicit and visible preprint policies.

Dissertations/Theses
In some disciplines, dissertations are entirely original works and thus may be subsequently used as source documents. In other disciplines, dissertations are often compilations of published articles and would therefore be considered destination documents. Like the other genres discussed here, dissertations share some features of published work. Their abstracts are indexed and searchable, and they are almost always housed in accessible institutional repositories such as libraries or online databases. Most editors and publishers, however, do not see recycling text from original dissertations as problematic. Recycling from “portfolio” dissertations directly, on the other hand, may be considered an unethical form of duplicate publication.6

LEGALITY
Given the complexities of copyright law, journal editors may misunderstand the law as it applies to text recycling. Depending on the situation, text recycling may be legal or illegal. Most copyright law addresses legal matters such as ownership, intellectual property rights, and infringement, not ethical

6 If authors choose to recycle material from such portfolio dissertations, editors should require authors to cite the original published papers and not the dissertations.
matters such as plagiarism and adherence to professional guidelines. Author-publisher agreements (contracts) may also restrict or permit certain kinds of recycling—either in licensing clauses or warranties (in which authors declare the work has not been previously published or submitted elsewhere).

Since developmental recycling does not involve the reuse of published material, authors usually own the rights to their unpublished work and thus may legally reuse those materials as they so choose.

For adaptive publication, in contrast, large amounts of published material are reused; unless the author has retained the rights for the source document or has secured permission from the rights owner, copyright would likely be infringed.

For generative recycling, the matter is complex. Whether copyright is infringed depends on the amount and nature of recycled material. Under U.S. law, recycling from one research article to another would likely be considered a “fair use” and thus not constitute copyright infringement. This is the case for generative recycling since, by definition, the intellectual “heart” of the new paper is distinct from the prior work. Legal concerns might be raised if the amount of recycled material is a significant proportion of the prior work. Editors should be aware, however, that authors’ rights to recycle under specific author-publisher contracts may be different from what copyright law would itself allow.

Finally, duplicate publication would usually be illegal. Such wholesale reuse would constitute copyright infringement unless the rights holder of the source gave permission for such reuse or the source was published under a Creative Commons license. But even in those cases, most instances of duplicate publication would violate the terms of the publishing agreement for the destination document, since these are nearly universal in requiring authors to warrant that the submitted work had not been previously published or submitted elsewhere.

CONCLUSION
This document identifies and discusses a number of issues that can cause confusion about the appropriateness of text recycling. While its primary purpose is to educate editors about these issues, it also highlights the need for explicit, carefully articulated guidelines and policies. We encourage you, as an editor, to familiarize yourself with the details of your own policies regarding text recycling, to work with your publisher to revise the current guidelines or to create new policies that fit your needs while addressing the issues described here. To facilitate this work, the TRRP has crafted a set of model text recycling policies that publishers may adopt or adapt as they see fit. These policies are available on the TRRP website.

---

7 In general, copyright laws do not address plagiarism per se. Under U.S. law, authors do not have the right to attribution. Including a citation for recycled material does not resolve potential concerns about infringement. In some countries (including many EU countries), authors do retain “paternity” rights. Some guidelines conflate these matters by, for example, stating that reusing material without a citation is plagiarism and therefore can infringe copyright. Editors should be careful not to conflate ethical matters with the legal issue of copyright infringement—especially in the context of U.S. or U.K. law.

8 See the TRRP white paper, Text Recycling in Research Writing: U.S. Copyright Law and Fair Use. David Hansen and Cary Moskovitz.
REFERENCES


ABOUT THIS DOCUMENT
Permission is granted to reproduce this document in full without modification for noncommercial purposes, so long as the copies are distributed at or below costs and identify the authors, title, and date of publication.


An electronic version of this document is available on the website of the Text Recycling Research Project, textrecycling.org. For information, contact: Cary Moskovitz, Thompson Writing Program, Duke University at cmosk@duke.edu.

This document was published under grant SES-1737093 from the U.S. National Science Foundation.