Plagiarism

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The Council of Science Editors White Paper on Promoting Integrity in Scientific Journal Publications defines plagiarism as “the appropriation of ideas, data, or methods from others without adequate permission or acknowledgment” and states that “[plagiarism] can apply to researchers’ duplication of their own previously published reports without acknowledgment (this is sometimes called self-plagiarism or duplicate publication).”

The World Association of Medical Editors (WAME) offers some guidelines on plagiarism. In its statement on publication ethics policies, WAME describes plagiarism as “scientific misconduct [that] should be addressed as such”. Plagiarism not only involves taking someone else’s ideas or words but, more importantly, involves fraudulent behavior in not making the source of those ideas clear.

Journal editors have a role in trying to prevent plagiarism and the appearance of duplicate publication in the literature. The Committee on Publication Ethics (COPE) offers a flowchart for journal editors, “What to do if you suspect plagiarism in a submitted manuscript”. If plagiarism is detected during the review process by an astute reviewer, the editor is advised to check the degree of apparent copying. For minor copying of phrases in the discussion from other sources or copying of language describing methods from the author’s other studies, the editor may simply invite the author to reword or attribute the copied material. If the editor does find clear plagiarism, he or she is instructed to contact the authors for an explanation, “ideally enclosing [a] signed authorship statement (or cover letter) stating that [the] submitted work is original/the author’s own and documentary evidence of plagiarism”. Whether the corresponding author admits a genuine mistake or denies copying, the paper should be rejected and all authors informed of the reason.

If plagiarism is detected in a published article, the COPE guidelines similarly recommend investigating by contacting the authors for an explanation. For minor violations, the authors should be informed of journal policy and given a warning. For more substantial violations, the journal may need to publish a retraction (see the CSE White Paper section on retractions).

Plagiarism-Detection Software

The advent of electronic publishing and technological advances has led to the development of new tools for detecting plagiarism. It is possible for computer programs to compare documents from a wide variety of sources and detect duplication.

Researchers at the Virginia Bioinformatics Institute have established a database of suspect duplicates from the MEDLINE database, which they call Deja vu. In attempting to help researchers identify studies in the literature similar to their research, allowing them to make complete reference lists or identify experts as reviewers, the developers of this detection software found many cases of duplication appearing in the literature. When a duplicate is identified, it is put into the database and labeled “unverified”. It is ultimately up to humans to decide whether the duplication is fraudulent or legitimately referenced material.

Another software tool being used by publishers is CrossCheck, which uses the iThenticate software (http://www.iThenticate.com, iParadigms, LLC, Oakland, California) and is associated with the CrossRef program for indexing publications (http://www.crossref.org, CrossRef, Lynnfield, Massachusetts). Members of CrossRef can subscribe to CrossCheck and screen manuscripts against the entire CrossRef database. Journal editorial offices may choose to screen selected or suspect manuscripts or screen all submissions to the journal. The program can be integrated into the manuscript-tracking system to allow submissions to be screened automatically at some point in the review process. The editor or publisher can set the level of detection to be flagged as “potential plagiarism”; the standard is 50% of the text matching other papers.

The report generated by CrossCheck includes the text of the manuscript with matched language highlighted by color to correspond to the published paper that was matched. The list of matched
published papers appears alongside the text, and many of the full-text articles are available through links in the report. Percentage matches for each paper are given with the citation, and the overall percentage match appears at the top of the report. Users can set the report to exclude matches of less than 2% or exclude reference lists; this can make the report easier to read and omit some of the trivial matches.

It is still up to the editor or editorial staff to review papers with high percentages of matches to determine whether the copying involves repetition of methods from the author’s previous publications or duplication of another author’s work. That is made simple by the use of highlighted colors in the text. Duplicate language in the introduction or discussion can range from innocent repeating of phrasing to “patchwriting”, in which authors copy and paste previously published material that supports their own research. The latter is often seen in papers by writers whose native language is not English and may be a product of cultural differences: using the words of another author is seen as a way of honoring him or her. It can also be the result of translation services that are using short cuts. Large areas of matching language in the methods section that duplicate another paper by the same authors can be examined further to see whether they are using overlapping methods that have been attributed in the reference list or in fact are duplicating a previous study. The editor will then have to determine whether the new results warrant a new publication or whether the two studies overlap too much and constitute “salami slicing”.

Why Does Detection of Plagiarism Matter?
It is obvious that copying another’s work without attribution is, in effect, stealing and is unfair to that author, who is not credited with the work. It could also lead to undeserved advantages for the plagiarizing author. But why is it wrong for an author to copy his or her own work? Not only could this be a violation of copyright, but duplicate publication is an issue. Duplicate publication has become more prevalent in today’s atmosphere of “publish or perish”. When authors repeatedly publish the same work, they make it more difficult for other researchers to perform systematic reviews or meta-analyses. They also take up valuable space in research journals that should contain original work.

In the Internet age, it is easier than ever to locate information and to “cut and paste” others’ work. Journal editors and author’s editors should be aware of and try to curb this problem to ensure that only original studies that advance science appear in the literature.

References
2. WAME Publication Ethics Committee. Publication ethics policies for medical journals [Internet]. Toronto (Canada): World Association of Medical Editors; [cited 2011 April 19]. Available from: http://www.wame.org/resources/ethics-resources/publication-ethics-policies-for-medical-journals/.

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