How to catch a cheat: an editor’s perspective on a new age of plagiarism and data manipulation

With the greater availability in the past decade of software that quickly and efficiently scans the literature for duplication, there has been increased awareness by the public of the issue of plagiarism. A famous, recent case is that of the former German Defense Minister whose doctoral title was revoked because he reportedly plagiarized a large portion of his doctoral thesis. There have been numerous other such text ‘copy-paste’ incidents in other countries as well. Just as readily, it has become easy to manipulate and transfer data from one figure into another, as long as the end product supports the story the author wants to tell. We would like to discuss here the types of cheating we have encountered over the past few years as journal editors and highlight what we think should be done about it.

Some 25 years ago, when we were students and post-docs, we learned that copying the text of others word-for-word was taboo; the ‘P-word’ carried a huge stigma that in most cases was deterrent enough. Besides, the effort involved in copying the text out of the book by hand was almost as much as with reformulating it in your own words. Summarizing what we had read and citing the original source was the proper way to do it. Nowadays, however, using the ‘intellectual property’ of others is as easy as 1-2-3: highlighting, copying, and pasting, whether it is a text passage, a musical piece, or a video sequence/film.

Detecting plagiarism several decades ago was difficult at best and was usually only possible by painstaking comparison of paragraphs and sentences. It often relied on intimate knowledge of the literature and individual styles of writing. Plagiarism detection, however, has recently become easier with the advent of tools such as iThenticate® and Turnitin®, which compare a manuscript to the published academic literature as well as Web content. Precise phrases and sentences are colour-coded according to the source they have been copied from. The ease of detection notwithstanding, however, careful, case-by-case assessment must be made because a ‘false positive’ can result when overall similarity is summed up to give a final percent identity. Thus, many small phrases that are similar can add up, so that a text appears to have a high degree of similarity. With this caveat in mind, however, we have been able to avoid several instances of gross plagiarism in submitted manuscripts that could have become an embarrassment for the journal:

(i) The authors of a submitted review article lifted many passages of text from a variety of published sources, including their entire summary, in some cases without citation. When we confronted them about it, they remarked that they thought the original authors had formulated the text quite well so they decided to leave it as it was.

This paper was rejected immediately, a clear case.

(ii) The prominent author of another review paper used several pages’ worth of text from one of his previously published reviews, apparently thinking it was an obscure source that no one would have recognized in the new review.

This author was told to re-write and update these sections and draw new, up-to-date figures. We do not want ‘recycled’ reviews, even from world-renowned authors.

(iii) An original manuscript was found to contain up to 72% of copied text that was taken mostly from two articles published by others. Some of the similarity was in the Methods section but most was in the Introduction, Results, Discussion, and figure legends.

This paper was rejected with no chance given for resubmission.

In this latter case, the most serious of the three described, we also found that a number of the figures had been taken in part from a previous publication of these authors; thus, the similarity checking software also led to the uncovering of data duplication. In such situations, outright rejection is clearly warranted, but further measures, including contacting the author’s institution or funding body, should also be undertaken.

Manipulating and duplicating data have recently become easier with the help of programs like Adobe Photoshop®—images can be rotated, shaded and blended, or pasted together in new ways that fit best into the authors’ hypothesis. Thanks to helpful software and some alert reviewers, we have been able to apprehend a few cases before they reached the publication stage. However, many journals are currently having to deal with this issue and their approach varies. Some have the staff and facilities to check every single figure that is submitted whereas others rely heavily on a reviewer’s or editor’s discerning eye.

Thankfully, Cardiovascular Research has not been confronted with a plethora of such cases. Our policy is that the submitting author, who is usually the corresponding author, has to take full responsibility for the integrity of the data and the originality of the text. This means that he/she has to be vigilant in overseeing the generation of data in the laboratory, the compilation of figures for the paper, and the writing and editing of the manuscript text. A not-too-seldom excuse used in the past has been that an errant post-doc or student (‘who has since left the laboratory’) mixed up the figure files or inadvertently...
took some text from a previous, ‘obscure’ publication, not realizing this was not permissible. The declaration that the submitting author is required to make in the cover letter of a manuscript that is being submitted to *Cardiovascular Research* is:

‘…neither the manuscript nor part of it have been published or are currently under consideration for publication with any other journal.’

This covers both plagiarism and data duplication, although some authors might not realize it. However, there should be no excuses for the type of behaviour described above. Not supervising every aspect of a paper means taking risks that could, in the end, ruin a brilliant career.

As journal editors responsible for the dissemination of novel findings in the preclinical arena that may someday bear fruit and lead to improvement in clinical practice, it is our duty to uphold high standards of publication ethics. We adhere to the principles of the Committee of Publication Ethics (COPE), and *Cardiovascular Research* is a member of this group as well as of the Heart Group of cardiology journals. Plagiarism and data manipulation will not be tolerated in manuscripts submitted to this journal.

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