

On Exemplary Scientific Conduct Regarding Submission of Manuscripts to Biomedical Informatics Journals

Editorial

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¹Journal of the American Medical Informatics Association

²Computer Methods and Programs in Biomedicine

³International Journal of Medical Informatics

⁴Journal of Biomedical Informatics

⁵Methods of Information in Medicine

Summary

As the Editors of leading international biomedical informatics journals, the authors report on a recent pattern of improper manuscript submissions to journals in our field. As a guide for future authors, we describe ethical and pragmatic issues related to submitting work for peer-reviewed journal publication. We propose a coordinated approach to the problem that our respective journals will follow. This Editorial is being jointly published in the following journals represented by the authors: *Computer Methods and Programs in Biomedicine*, *International Journal of Medical Informatics*, *Journal of Biomedical Informatics*, *Journal of the American Medical Informatics Association*, and *Methods of Information in Medicine*.

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As the Editors of leading international biomedical informatics journals, the authors report on a recent pattern of improper manuscript submissions to journals in our field. As a guide for future authors, we describe ethical and pragmatic issues related to submitting work for peer-reviewed journal publication. We propose a coordinated approach to the problem that our respective journals will follow. This Editorial is being jointly published in the following journals represented by the authors: *Computer Methods and Programs in Biomedicine*, *International Journal of Medical Informatics*, *Journal of Biomedical Informatics*, *Journal of the American Medical Informatics Association*, and *Methods of Information in Medicine*.

As Editors, we have collectively experienced at least one of the following occurrences recently:

- 1) Concurrent duplicate submissions: The same set of authors submits essentially identical manuscripts to two separate journals concurrently, without disclosure to the Editorial staffs of either. The authors may mistakenly believe that it is permissible to do so because the respective journals have minimally overlapping audiences.
- 2) Serial unaltered submissions (“journal shopping”): Authors submit a manuscript to one biomedical informatics journal, and, after peer review, it is not accepted for publication, and a critique is provided. The authors do not make any of the changes suggested by the previous review, and instead submit the unchanged manuscript immediately to a

- second journal, without disclosing the existence or results of the previous review by the first journal.
- 3) Serial minimally altered republication: Authors publish a preliminary manuscript as part of conference proceedings. Mistakenly believing that conference publications do not count as “official” publications (of note, several informatics conference proceedings, such as MEDINFO, MIE, and the AMIA Fall Symposium, are indexed in MEDLINE), the authors later submit the same work, with minimal alteration or expansion, to a peer-reviewed journal for publication.
 - 4) Self-plagiarism [1]: Authors, mistakenly believing that any text that they have written is “theirs”, submit a new manuscript for publication in a different, peer-reviewed journal, and include major sections (paragraphs or larger) of the previous peer-reviewed publication that they authored – and do so without proper attribution to the original source or without obtaining permission from the copyright holder.
 - 5) Non-disclosure of conflict of interest by one or more of the authors: Authors with a financial interest related to the scientific content of the paper fail to disclose this information in a cover letter to the Editor at the time of submission or in the acknowledgment section of the manuscript prior to the time of publication.

The peer-reviewed literature constitutes the main archival source of knowledge in biomedicine. Authors, editors, and publishers must respect reasonable, common-sense ethical and legal imperatives in order to maintain the integrity of the peer-reviewed literature as a vital and important resource. Peer review is conducted by busy professional colleagues who are experts in a given field, and who are not compensated for their efforts. The burden on editors and publishers grows over time due to the seemingly exponential rate of increase in biomedical publications. Peer review is based on trust, respect and the principle of “behave toward others as you would like them to behave toward you”. There is little room for the sort of behaviors detailed above, which potentially involve dishonesty, deception, and dis-

respect for the work of those carrying out peer review. Submitting duplicative material for publication unnecessarily consumes editorial staff time and expert reviewer resources. If the deception is not caught, duplicate publication also violates copyright laws, since authors assign copyright on a work to the publisher of the journal in which it appears. Duplicative submissions burden the peer review system, creating inefficiencies that may lengthen the time before anyone’s submitted manuscript is reviewed and published.

With respect to submissions to biomedical informatics journals, prospective authors should follow several common, standard practices. To avoid burdening an already labor-intensive peer review process, authors should, at the time of submission of a work, disclose confidentially to the editorial staff of the target journal any potentially overlapping materials, whether already published, or currently in peer review. It is best if the authors attach clearly labeled copies of any such potentially duplicative work, along with their original submission to the journal. In addition, if a manuscript recently underwent peer review by another journal, authors should disclose this information. They should include either the previous critique, or a cover letter with the new submission that explains how the authors have modified the manuscript to address the previous (outside) critique. Similarly, authors should fully disclose any potential conflicts of interest of any of the authors (e.g., commercial ownership of the intellectual product being evaluated, potential financial benefit to an author related to the subject of the publication, or commercial sponsorship of an evaluation study of that company’s product). Most importantly, if there is any question regarding appropriate procedures for submission or disclosure, authors should contact the editorial office and discuss the situation with the Editor or editorial staff well in advance of submitting a manuscript.

The Editors who have authored this paper note that there are many “gray” or borderline areas where individual journals will have different policies from one another. We also point out that, by contacting the Editor(s) of journals in advance of a sub-

mission, it may be possible and reasonable to arrange for “duplicate” publication by obtaining mutual consent from the Editor(s). For example, if a manuscript is important to both a clinical audience and a technical audience, and has potentially great significance to both fields, Editors of journals with relatively non-overlapping readerships might be willing to publish similar versions of the same work concurrently, so long as this is disclosed before submission and in the manuscripts as they are published. Such a disclosure with joint publication occurred for a position paper recommending how the United States Food and Drug Administration (FDA) might approach regulation of clinical software systems [2, 3]. Some policy differences among the journals represented by the authors include that, for example, *JAMIA* with few exceptions will not publish work that has previously appeared with global distribution on the World Wide Web – whereas other journals are not as restrictive. *JAMIA* has historical standards for how much new material (methods and results) must be added to a preliminary paper published in conference proceedings in order to qualify as a new original publication, while other journals have different standards for what is required in such settings. *Methods of Information in Medicine*, for example, generally does not publish material that has already appeared elsewhere, but accepts some papers that have been published as abstracts, and some high-quality manuscripts that have already appeared in a language other than English. The *International Journal of Medical Informatics* may approach authors of the best presentations at certain conferences (e.g. MIE and MEDINFO) for permission to republish the manuscripts (often as extended versions) in special issues. The *Journal of Biomedical Informatics* occasionally publishes special issues based on conferences, but the individual papers are greatly expanded from what occurs in any Proceedings and the review process is as rigorous as it would be for any journal submission.

The Editors of the respective journals listed above mutually agree that any work submitted to any of our journals that represents duplicative publication (as defined by the common standards above) will be im-

mediately rejected without peer review, and returned to the authors. It will not subsequently be considered for publication in the journal to which it was submitted, even if substantially revised. In addition, as a deterrent to duplicative publication in our field, the Editors have agreed to share among themselves the list of authors and the title of any manuscript that each of the journals accepts for publication, immediately at the time that the work is accepted for publication, with the possibility that duplicative submissions discovered through this process will be rejected prior to publication.

Authors should avoid duplicative publications because it damages not only their reputation, but weakens the integrity of the peer review process, and results in needless efforts by dedicated individuals who participate in the peer review process. We thank future authors for their careful consideration of these matters.

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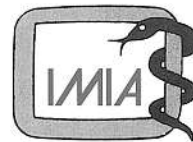
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