




Put science first and formatting later

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Since the first scientific journals, *Philosophical Transactions* and *Journal des sçavans*, were founded in 1665, scholarly journals have been the primary means by which scientists disseminate their results. In 2014, approximately 34,550 scholarly peer-reviewed journals collectively published about 2.5 million scientific papers [1]. Most of these journals have stringent formatting guidelines that authors must adhere to when submitting an article; manuscripts can even be rejected for not following these guidelines [2,3]. The average rejection rate for biomedical journals is 62% (Fig 1) [4,5]. Some of the much sought-after journals have rejection rates of 90% or higher [6,7]. After rejection, authors have to reformat their manuscript when they submit to a new journal, which can be repeated several times, as part of a process commonly referred to as “Journal Shopping” [8]. These unnecessary cycles of “reformat and resubmit” consume a large amount of scientists’ time and resources [6], and journal shopping has a significant impact on the speed of scientific communication [8]. For instance, with an average rejection rate of 62% for the 2.5 million articles published every year, and an hour spent on reformatting per article, we can estimate a lower bound of 1,550,000 h wasted on reformatting rejected articles per year.

There have been several efforts to speed up scientific communication and the publication process. ASAPbio (<http://asapbio.org/>) promotes the use of preprint servers in the life sciences, which host open-access and, notably, format-free (style-wise) manuscripts for scientists to share their research ahead of publication in peer-reviewed journals. bioRxiv (<https://www.biorxiv.org/>) is a preprint server for the life sciences that

allows authors to submit their format-free manuscripts and associated metadata directly to journals or peer review services. Currently, 120 journals and peer review services have joined this initiative. Furthermore, some journals accept format-free submissions (<https://asntech.github.io/format-free-journals/>), which seems to be greatly appreciated by the scientific community. In 2011, the journal *Free Radical Biology and Medicine* (Elsevier) launched the “Your Paper, Your Way” (YPYW) initiative, which allows authors to submit their manuscripts as a single file and, importantly, in any style [9]. YPYW was later adopted by hundreds of Elsevier journals, and a recent survey showed that the initiative was useful for most of the authors [10]. The growing popularity of these format-free preprint servers and the YPYW initiative indicate that readers and reviewers care little about how manuscripts are formatted and appreciate efforts to simplify the submission process. [Editor’s note: EMBO Press journals do not require a specific style and format at submission.]

There is an overall need to adopt a format-free submission process that enables researchers to spend their time doing science and not formatting manuscripts. We therefore propose a universal “format-free” initial submission policy to save the time and resources spent on unnecessary formatting.

Structure-free abstract

Some journals require authors to structure the abstract by adding subsections such as background, results, and conclusions. A format-free submission should not require a specific structure for the abstract, and there should be no limit on the number of words at initial submission.

Order-free sections

A typical list of sections for a scientific article is Abstract, Introduction, Results, Materials and Methods, Discussion, and Conclusions. Some journals require Materials and Methods to be placed before the Results, while others require it to be at the end of the manuscript. Some journals allow merging the Results and Discussion sections, while others require two distinct sections. While a format-free submission should still contain key sections required for readability, there should be no requirement for a specific order at initial submission.

Style-free references

Many journals require that authors follow their in-house reference styles when preparing manuscripts for initial submission. Although changing the reference style has become easier with reference managers, there is no need to impose a specific style. A format-free submission should allow any reference style, in terms of both how references are cited in the text and how they are listed, provided that all of the necessary information for each referenced work is there.

Format-free figures and tables

A format-free initial submission should not have any restriction on figures and tables, in terms of both their placement in the manuscript and how they are uploaded into the system. Furthermore, journals should not impose any specific style (title, bold case, etc.) on captions at initial submission. Moreover, when figures are divided into multiple panels, a format-free submission

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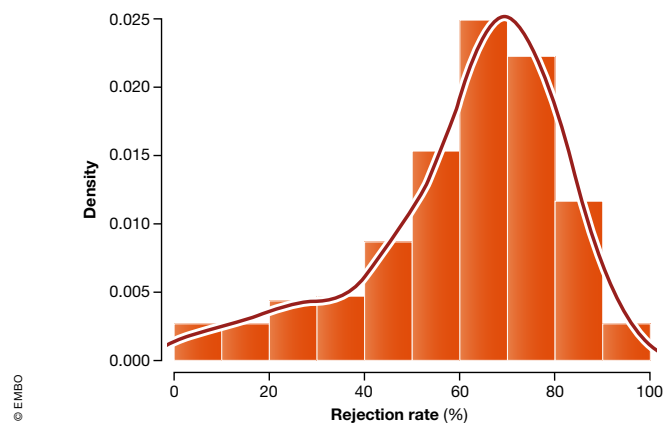


Figure 1. Density (y-axis) plot of the stated rejection rate percentages (x-axis) from 300 randomly selected academic journals in life sciences and biomedicine. Data were collected in March 2016 [4,5].

policy should allow authors to label them in any way that is understandable for the reader.

Format-free manuscript file

Some journals specifically ask authors to provide their manuscript text only as MS Word or LaTeX files. A format-free submission should accept any easily viewable open file format, such as PDF or any commonly used text format.

Given the significant amount of time and resources that are wasted on reformatting research articles, we urge journals and the scientific community to introduce format-free submission policies. Formatting has no impact on the results, and style plays no role in judging a scientific manuscript. Scientists should focus on writing concise and readable manuscripts, and not on how the sections are ordered, the abstract is structured, references are styled, and figures and

tables are placed. Journals can (and do) request authors to make specific format changes which are commonly related to overall length, number and style of figures, tables and references, and section order. While these changes may be necessary for fitting the journal's style, this should only be requested for provisionally accepted manuscripts and not for new submissions. We also recognize that a format-free policy will only be meaningful if adopted by a large number of journals. This is why we urge academic journals and publishers to put science first; formatting can come later.

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Conflict of interest

AM-M is the deputy editor of Health Science Reports.

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