

How to Manage a Cardiovascular Imaging Journal? Reflections and Ideas

Gerald Maurer^{1,2} 

Medical University of Vienna,¹ Wien – Austria

European Heart Journal Cardiovascular Imaging,² Oxford - United Kingdom

Cardiovascular Imaging is a rapidly growing field with an increasing impact on clinical practice. Each imaging modality has undergone remarkable development in recent years, requiring a very specialized understanding not only of physiology and disease processes, but also of technical aspects and physics. This has been reflected not only in the number but also in the complexity of published papers (as in most fields of medicine). While just two or three decades ago, cardiovascular imaging topics could be adequately covered in the major general cardiology journals, this is no longer the case and has led to the establishment of journals specializing in the field.

When managing a scientific journal, several issues need to be considered. These include its overall goals, its target audience, affiliation to an academic society, and relationship to other journals. The European Heart Journal Cardiovascular Imaging¹ is the official journal of the European Association of Cardiovascular Imaging, which is a branch of the European Society of Cardiology. The journal's goals are, to a great extent, influenced by these affiliations and by their policies. As stated in its title, it is a European journal, but it nevertheless aims to serve the international community, including readers, editorial board, and authors. Indeed, at this point, a large percentage of our readers are from outside Europe and we receive many submissions from other continents. Similarly, the American College of Cardiology and the American Heart Association publish dedicated imaging journals in conjunction with their more general journals. It is therefore important that a large and vital country like Brazil, with its excellent and active cardiological community, publish a journal such as ABC Imagem Cardiovascular on behalf of the Brazilian Society of Cardiology.

Until some years ago scientific journals were printed only. With the advent of the internet there has been a move toward online publications. Currently, many journals follow a hybrid approach, with simultaneous print and online publication. While some demand for printed hardcopies continues, most readers have preferred the online versions and some journals

abandoned the print issues. Obviously, the online version has the advantage of being published more promptly and better disseminated, and more easily accessible. In addition, in view of the proliferation of publications in the medical literature, physical storage space for paper journals becomes an issue. Any imaging journal requires the ability to provide high quality images to the reader. While still frames images can be delivered in print, dynamic video material can only be viewed online (the use of supplementary CDs and DVDs for this purpose has largely been abandoned).

Open Access publication is an important issue peer-reviewed academic journals are confronted with. Traditionally the cost of publishing has been paid by the reader, either in form of a subscription fee (personal or institutional), site license, or by purchasing individual articles. This model has hampered the accessibility to scientific research, especially in poorer countries. Thus, to an increasing degree many funding or governmental agencies that sponsor and finance scientific research require open access publication.² This has led to the evolution toward open-access journals, which are characterized by funding models that do not require the reader to pay for accessing the journal's contents. Instead, fees are paid by the author or via funding from other sources, such as public funding, subsidies and grants. In the hybrid model, there is a combination of the traditional approach, where some articles are available for subscribers or by purchase, with the online access, paid for by the author. There are, however, increasing initiatives toward publishing research sponsored by state-funded institutions in journals that are freely available. In Europe the so-called Plan S initiative was initiated by a consortium of national research agencies and funders from twelve European countries. Plan S pushes for publishing in truly open access journals, that are freely available to all. Hybrid journals are not considered to be compliant with Plan S unless they are part of a transformative agreement. However, there are also clear downsides to the open access model. For many authors, the publication fee can be a considerable financial burden, particularly when trying to publish smaller studies with limited funding. On the publishing side, even some prestigious journals have experienced an immediate and drastic drop in the number of submissions after switching to a fully open access model.³

Importantly, the rating of journals deserves mention, and different metrics have been used. The most popular is the impact factor,⁴ calculated as the ratio between the number of citations received in a year and the total number of citable items published in that journal during the two preceding years. The impact factor receives a lot of criticism for its shortcomings,⁵ which include flawed statistical validity, inapplicability to individual scientists and between-discipline differences. Despite many concerns, the impact factor continues to be the most widely followed metric by the

Keywords

Cardiovascular therapy; medical publishing; journal ranking; open access.

Mailing Address: Gerald Maurer •

Department of Cardiology, Medical University of Vienna, Spitalgasse 23, 1090, Vienna, Austria.

E-mail: gerald.maurer@meduniwien.ac.at

Manuscript received March 13, 2023; revised manuscript March 13, 2023; accepted March 20, 2023.

Editor responsible for the review: Daniela do Carmo Rassi Frota

DOI: <https://doi.org/10.36660/abcimg.20230030i>

public. Some alternative metrics have been proposed, like the Eigenfactor,⁶ which weights citations from highly ranked journals to count more than those from poorly ranked journals, and the Citescore that reflects the yearly average number of citations to recent articles published in a journal. A very different type of measure, the Altmetrics score⁷ has gained widespread as a complement to more traditional metrics, to assess impact based on diverse online research output, such as social media, online news media, and online reference managers. Also, the importance of other measures, such as the number of downloads, content engagement, and total

number of citations needs to be recognized. There can be striking discrepancies: some papers may have a relatively small number of citations but a very large number of downloads, as often seen for publications that are highly relevant for routine practice but perhaps not for cutting-edge research.

So, what determines the true success of a journal? Which path should an editor pursue? There are differences between various journals' objectives and missions, but what ultimately counts are integrity, scientific quality, and, most importantly, usefulness to its readers.

References

1. Taylor J. A New ESC Journal for All Cardiac Imaging Modalities. *European Heart Journal*. 2012;33:281–289.
2. Brainard J. Open Access Takes Flight. *Science*. 2021;371(6524):16–20. doi: 10.1126/science.371.6524.16.
3. van Noorden R. Open-Access Plan S to Allow Publishing in Any Journal. *Nature*. 2020 Jul 16. doi: 10.1038/d41586-020-02134-6.
4. Hoeffel C. Journal Impact Factors. *Allergy*. 1998;53(12):1225. doi: 10.1111/j.1398-9995.1998.tb03848.x.
5. Callaway E. Beat it, Impact Factor! Publishing Elite Turns Against Controversial Metric. *Nature*. 2016;535(7611):210–1. doi: 10.1038/nature.2016.20224.
6. Bergstrom CT, West JD, Wiseman MA. The Eigenfactor Metrics. *J Neurosci*. 2008;28(45):11433–4. doi: 10.1523/JNEUROSCI.0003-08.2008.
7. Chavda J, Patel A. Measuring Research Impact: Bibliometrics, Social Media, Altmetrics, and the BJGP. *Br J Gen Pract*. 2016;66(642):e59–61. doi: 10.3399/bjgp16X683353.



This is an open-access article distributed under the terms of the Creative Commons Attribution License