

SCIENCE EDITOR



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WINTER 2019
VOLUME 42 • NUMBER 4

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On the cover: Detail from "Des Principales Montagnes et du Cours des Principaux Fleuves due Monde" by published by J. Andriveau-Goujon in 1829. This early data visualization compares the sizes and features of the major mountains and rivers known at that time. Illustration courtesy of the David Rumsey Map Collection, www.davidrumsey.com (CC BY-NC-SA 3.0); the full high-resolution version of this image is available online at <https://www.davidrumsey.com/luna/servlet/s/dl6cs6>. Special thanks to Lindsey Buscher for the recommendation.



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International Perspectives

Jonathan Schultz

What does it mean to be an international journal? In an online publishing and submission landscape, almost all journals, even those with a specific location in their title, are effectively international in the sense that they may have readers around the world and accept submissions for any researcher, anywhere.

But is that enough to be truly international? In this issue of *Science Editor*, three articles explore what it means to be an international, geographically diverse journal or organization and provide suggestions for improvement.

Global Balance

As discussed in a recent *Science Editor* Newsletter,¹ The makeup of an editorial board is an area where journals may try to improve their international reach, adding members from across the globe. But as Rafael Araújo and Geoffrey Shideler report in the article based on their award-winning abstract from the CSE 2019 Annual Meeting, Cultural and Geographical Representation in the Editorial Boards of Aquatic Science Journals, the extent of many editorial board's geographic diversity does not always compare to the geographic diversity of their authors.

Specifically looking at aquatic science journals, Araújo and Shideler find that some countries, particularly the US, have an overrepresentation on editorial boards whereas others, particularly China, are underrepresented compared to how often authors from those countries publish in the journal.

The authors refer to this difference as either an editorial surplus or deficit and provide a framework for determining where a journal stands: take the geographic representation of the editors (e.g., 50% US-based editors, 20% Canada, 10% Japan) and compare it to the country of origin for published articles in that journal. For example, a journal may have 60% of its editors based at a US institution, but only 40% of the articles published in a year originate in the US. I highly suspect that the findings they show in Figure 1 for aquatic journals (that is, a surplus for US, Canada, and most of Europe, and a deficit for most of the rest of the world) is fairly common.

Importantly, Araújo and Shideler also find a relationship between the geographic diversity of journal editors and Scimago journal rank, as journals with more diverse editorial boards tended to be ranked higher. While causation can't be determined (for example, higher ranked journals may have

an easier time recruiting international editors), they did find that geographically diverse journals were rarely low-ranked. This implies a likely virtuous cycle, wherein international editors help attract the best research from around the world, helping to attract more top international editors, and onwards and upwards.

Geographical Diversity

Of course, it is important to remember that the term "international" can encompass every other country than a journal's home country, so it's important to avoid thinking of it as a local/international binary. In her article, Siân Harris, a communications specialist at INASP, outlines ways we can move Toward Global Equity in Scholarly Communication, challenging editors to think about diversity and inclusion at their journals and ensure that "geographical diversity" is not forgotten. As an example, when weighing the international makeup of authors or reviewers, it is not uncommon to see, for example, the UK—a country, given the same weight as Africa—a continent. As she states, "a researcher from Ethiopia is no more represented by a journal paper from South Africa than a researcher from Croatia is represented by a paper from the UK."

"A researcher from Ethiopia is no more represented by a journal paper from South Africa than a researcher from Croatia is represented by a paper from the UK."

One of the reasons this is important to consider is that researchers in low- and middle-income countries continue to face significant challenges and barriers to acceptance in a scholarly communication system dominated by the "Global North." Many journals when selecting articles for publication require that the research be "novel and significant," but to whom? Institutions in low- and middle-income countries with significantly fewer resources than their wealthier counterparts may not be able to carry out the first-ever trial of a new drug or procedure but attempts to replicate trials in novel environments and populations should be seen as significant and valuable contributions to global research. There are signs that this is starting to be recognized (see for example, this recent editorial² in an American Heart Association journal), but more needs to be done. Luckily, Harris provides additional specific recommendations for improving global diversity in journals.

International Collaborations and Partnerships

Another way that journals can participate internationally is by partnering with local journals through partnerships, such as

Sections of this Viewpoint are adapted from the August and December 2019 editions of the Science Editor Newsletter.

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the African Journal Partnership Program (AJPP), to which the Council of Science Editors provides support. In their article, Fanuel Meckson Bickton, Lucinda Manda-Taylor, Raymond Hamoonga, and Aruyaru Stanley Mwenda describe the Challenges Facing Sub-Saharan African Health Science Journals and Benefits of International Collaborations and Partnerships.

Considering the population size of sub-Saharan Africa and the disproportionate disease burden affecting this population, all things being equal, research output from these countries should be high; however, as the authors outline, sub-Saharan Africa accounts for “less than 1% of the world’s research output.” They suggest this is in large part due to a lack of support at an institutional level, financially, but also for research, writing, and editing mentorships and training that would help improve the quality of published research from these countries.

This training is crucial because researchers in sub-Saharan Africa still want to, and are sometimes expected to, publish in overseas journals with high Impact Factors. However, even when the quality of the research and writing is high, “high impact” journals sometimes view the research coming out of Africa as not “novel” and meant for African audiences only.

One of the goals then of programs like AJPP is to build up the infrastructure of African journals so they can support local research through training and mentorship, but also by giving them a high-quality avenue for publication. Running a journal as an editor-in-chief can be tough, even when there is institutional and editorial office support, both of which can be lacking for African journals. Thus, AJPP partners African journal editors with more established US and UK journals to provide mentorship and training in the hopes of improving the quality and visibility of the journals so they can attract higher quality manuscripts and raise the profile of African research overall. The authors conclude by offering their hopes for the future and ways journals and editors can help contribute.

To be considered international a journal can’t just recruit a few editors from prestigious non-US institutions and be done with it.

A key takeaway from these articles is that to be considered international a journal can’t just recruit a few editors from prestigious non-US institutions and be done with it. Including an international perspective at a journal is an ongoing process and more can be done to improve editorial deficits, support true geographic diversity, and develop global partnerships.

Also in this issue of *Science Editor*, Lee Ann Kleffman, Managing Editor of *Neurology Genetics*, presents her research into how authors determine where to submit their research. Using author surveys, she found that “journal reputation” was by far the number one determinate for where authors preferred to publish. Interestingly, the survey provided “Impact Factor” as a separate option and it tied with “journal audience” as a secondary factor. How authors are exactly defining “reputation” is hard to know for sure, but taken at face value, the research suggest there are elements beyond Impact Factor that journals and editors can work to improve to boost their reputation, and thus increase submissions.

This issue also marks the last batch of Meeting Reports from the 2019 CSE Annual Meeting in Columbus, Ohio. Some of the more inventively named sessions covered include “I am Sorry, Who Are You Now? Navigating Mergers and Acquisitions in the Vendor Space”; “Building and Managing a Taxonomy: How to Manage All of the Cooks in the Kitchen”; and “A Picture’s Worth 1,000 Words: Disseminating Research Through Graphical and Visual Abstracts”. There are also helpful articles on changes to the AMA Style Guide, an update on the Manuscript Exchange Common Approach (MECA) Initiative, tips for Turning Your Research into an Article/Poster, and much more.

I will conclude this introduction to this special issue of *Science Editor* on International Perspectives by highlighting the cover image, a detail from “Des Principales Montagnes et du Cours des Principaux Fleuves due Monde” by published by J. Andriveau-Goujon in 1829 (courtesy of the David Rumsey Map Collection, <https://www.davidrumsey.com/luna/servlet/s/dl6cs63>). The full version of this map is on the facing page, and it represents an early data visualization, comparing the sizes and features of the major mountains and rivers known at that time. The image provides an international assessment of the world’s highest peaks and longest rivers merging them all together into one beautiful graphic. A metaphor perhaps, but also a lovely work of art either way.

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Toward Global Equity in Scholarly Communication

Siân Harris

In an article based on her presentation at the Council of Science Editors Annual Meeting in May 2019, Siân Harris, communications specialist at INASP, a UK-based nongovernmental organization dedicated to putting equitable research and knowledge at the heart of development, discusses inequity in research communication and how journal editors can help redress the balance.

There is much talk at the moment about diversity and inclusion in research, as well as an encouraging rise in the appearance of this topic in conference programs and other discussions. There is broad agreement that inclusion and diversity are good aims, but what do they actually look like in practice in scholarly communication in a global context?

Throughout INASP's history we have seen the increased challenges that many researchers in low- and middle-income countries face as compared with those in high-income countries. Over the past year, these inequities in research were central themes for a series of national dialogue events held with partners.¹ These meetings, which took place in Bangladesh, Ethiopia, Tanzania, and Uganda, brought together a range of stakeholders to discuss the challenge of equity in research and research communication in these countries. Identifying inequities today—at global and local levels—is vital for ensuring greater diversity and inclusion in the future.

Global Imbalances

Perhaps the global inequity that is most discussed in the Global North publishing sector is access to scholarly information. The traditional subscription-based model disadvantages researchers in institutions and countries without the means to pay for subscriptions.

This situation gave rise to several research access initiatives that have been supported by major publishers. For many years, INASP ran a program that negotiated with publishers for free or low-cost access for library consortia in low- and middle-income countries. In recent years, we helped these library consortia to grow their capacity in these negotiations and helped publishers and consortia to understand each other's situations better so that now these relationships happen directly without INASP's involvement.

SIÂN HARRIS is communications specialist at INASP.

Many publishers also work with Research4Life and other initiatives to provide similar access in lower-income countries.

The challenge of lack of access to scholarly materials for researchers in resource-constrained situations has also been one of the ongoing cases presented for Open Access. In practice, though, many discussions about Open Access approaches have taken place without the involvement of stakeholders in the Global South.

It should also be noted that, for authors, commercial Open Access can also bring a disadvantage. Some journals have very high article publication charges (APCs), and although many publishers offer full or partial waivers for researchers in low- and middle-income countries, research that we have done at INASP suggests that many authors are still paying APCs, often out of their own pocket. It is not clear whether this is because these authors are ineligible for waivers or because they are unaware of the possibility of requesting them. However, the recent findings² that researchers in low-income countries publish more in Open Access journals than do researchers from lower-middle-income countries suggests that availability—or lack of availability—of full APC waivers is a factor. If that is the case, it may also suggest that researchers are less aware of Open Access journals that don't charge APCs, an approach taken by many journals in the Global South.

Authors, Reviewers, and Editors

The picture of global inequity in research communication goes far beyond information access. Researchers are not just readers but also authors, reviewers, and editors, so it is not enough to simply have access to the research that other people have done. The role of researchers in the Global South as producers and contributors of ideas and knowledge—methodological and theoretical as well as empirical—is often not recognized or valued.

This results in global imbalances in who can do research, in who can shape the research agenda, and in how collaboration happens. For many researchers, access to networks and conferences is limited because of a lack of institutional funding. Researchers in the Global South are often not consulted or included on large, overseas-funded research projects taking place in their own fields and industries. Additionally, where North–South collaborations do exist, they are often imbalanced, with Southern researchers considered as data gatherers more than as partners.³

What's more, funding from the Global North often has an influence on shaping the research agenda of countries in the Global South.

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Cost is far from the only barrier, however. In an arena where the English language is so dominant, there are inevitable biases against people who have less than perfect English. And this also extends to those with less knowledge of how to structure and write a research paper and those with less understanding of the publishing system and sector and how to navigate them. Our AuthorAID project⁴ has been working on this challenge for many years, providing online and face-to-face training in research writing as well as a range of resources and an online mentoring platform.

Similar imbalances arise when it comes to peer review. In 2018 for Peer Review Week, we ran a series of blog posts⁵ providing perspectives from researchers in Africa and South Asia on their experiences of peer review. They talked about challenges that they have experienced both as authors and as reviewers, including assumptions and practices that are not appropriate for their context, as well as the fact that grammar and spelling errors are noticed more than the quality of the research. They also talked about having fewer opportunities to serve as peer reviewers and about the lack of training and support when there are opportunities to review, which can have implications for review quality.

There have been similar observations⁶ about the geographical diversity, or otherwise, of editorial boards.

Journals Are Published Worldwide

It is also noticeable that discussions about scholarly publishing tend to focus on large publishers that will pretty much all be based in North America and Western Europe.

But this is not an accurate representation of the global picture of scholarly publishing. Thousands of journals are published in low- and middle-income countries. Many have been publishing, quietly, for many years and have made a huge contribution to and are hugely valued within their academic and professional communities. However, many are not widely known beyond—or sometimes even within—their countries.

This means that these journals, which are often small, scholar-led titles, are less discoverable and often are not included in the lists of titles for consideration in promotion decisions. This, in turn, reinforces the perceived dominance of publishing activities from Europe and North America in global scholarly communication and leaves journals in the Global South with a bigger challenge in order to be seen as credible.

In response to these inequities in terms of resources and how well the journals are known, African Journals Online (AJOL) and INASP recently launched Journal Publishing Practices and Standards (JPPS),⁷ which is initially being used to assess and guide the 900+ journals across AJOL and the other Journals Online platforms that INASP has been involved with throughout Latin America and Asia.

The JPPS framework has a robust assessment criteria for the quality of publishing practices of journals in the Global South.



Figure 1. Journal editors in Nepal at the launch of Journal Publishing Practices and Standards (JPPS), which provides a robust assessment of publishing practices of journals in the Global South.

The JPPS levels that are awarded to journals serve a dual purpose. For journal editors, the detailed feedback from the JPPS assessment helps them to identify ways to improve their publishing practices and standards with a view to achieving a higher level at the next assessment. Additionally, the independent, internationally recognized set of criteria helps the journals to become more visible and provides readers and authors with assurance of the credibility of these titles.

Local Inequities

There are many major global inequities in research and scholarly communication. To address the inequity challenges, however, there is a need to go beyond this to local inequalities, and this is one of the themes that came out of the INASP in-country dialogue events. One of these inequalities concerns geographical discrepancies within countries. Often, for example, universities in the capital or in the biggest cities attract the most funding from national and international funders. This is also often historical; these universities are often the established centers, and other universities in a country may be newer.

There are also inequalities among individuals and groups, with the same kind of diversity and inclusion issues that exist everywhere. A particular area that we have been focusing on is gender. Our dialogue events recognized the great contributions that women and men have both made to their societies and emphasized that women and men must both benefit from any solutions that are advanced to promote gender equity.

How to Improve Global Diversity in Journals

I will conclude with some recommendations for some ways that journal editors worldwide can improve global diversity in their journals:



Figure 2. Panel discussion about gender equity in research during a dialogue event in Ethiopia in 2018.

- Think about what “counts” as research for inclusion in an academic journal. How much are the definitions of what is seen as “globally significant” set by what is familiar or seems significant to editors in the North? Do those definitions exclude research ideas or approaches from the rest of the world?
- Think about the geographical diversity of your authorship, reviewer base, and editorial board. Is there good research that you are missing because the papers take more time to edit? Are you defaulting to a regular “easy” pool of reviewers? Are there resources or training opportunities that you could point your authors and reviewers to (e.g., AuthorAID)?
- Beyond geographical diversity, dig deeper into your pool of authors, editors, and reviewers. Are they mainly men? Are they mainly from universities in capital cities? Have they studied abroad? Are they predominantly from one region of a country? Some of these questions will be hard to answer from the details submitted with a journal paper, but they are worth bearing in mind in author surveys.
- In monitoring and reporting on diversity, make sure that Africa, for example, is treated as a continent, not as a country. Having the same number of authors from Africa as from Canada, for example, is not the right ultimate target; the population of Canada is approximately five

million less than that of Uganda, and a researcher from Ethiopia is no more represented by a journal paper from South Africa than a researcher from Croatia is represented by a paper from the UK.

And finally, journal editors are very welcome as mentors in AuthorAID. It is a simple process to sign up to, the commitment doesn’t have to be huge, and the experience is very rewarding.⁸

Equity in research and knowledge ecosystems is an underlying theme of our work at INASP. If you would like to know more, we have published some thoughts on our current thinking.⁹

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Challenges Facing Sub-Saharan African Health Science Journals and Benefits of International Collaborations and Partnerships

Fanuel Meckson Bickton, Lucinda Manda-Taylor, Raymond Hamoonga, and Aruyaru Stanley Mwenda

Abstract

In order for the findings of health-related research to be accessible to health professionals and to have a potential effect on the greater scientific community, they must be not only written but also published. Failure to publish or access important health-related research findings might significantly diminish the potential impact that those findings would have on health and, more precisely, on clinical practice. Journals form a core means of accrediting and disseminating these findings and are especially important in sub-Saharan Africa by virtue of its large share of the global population and disease burden. Unexpectedly, the health-related research output from the region is low, owing in part to unique challenges facing the health science journals in the region. In this essay, we discuss some of those challenges from our editorial point of view, as well as the benefits of international collaborations and partnerships.

Introduction

The accessibility and potential for impact of health-related research work on the scientific community depends on such work being both written and published. Recently, sub-Saharan Africa (SSA) has greatly increased both the quantity and quality of its research output. Between 2003

and 2012, the region more than doubled its annual research output. Its share of global research increased from 0.44% to 0.72%, and citations to its publications increased from a range of 0.06–0.16% to 0.12–0.28%.^{1,2} As promising as this trend is, however, SSA still accounts for less than 1% of the world's research output, which remains a far cry from its shares of 12% of the global population¹ and 31% of the global burden of disease.^{3,4} At such a low percentage of research output, the region is denied local health data that can lead to customized local health solutions and improved overall population health.

Health science journals serve as vehicles for disseminating health-related research findings through publication.⁵ These findings form the basis for health policy decisions. It follows, therefore, that any challenges facing health science journals can negatively affect their dissemination role and eventually the impacts of important health-related research findings on public health. Although various reasons contributing to limited research output from low-income settings have been reported previously,⁶ there is a dearth of data on the challenges facing health science journals in these settings. Having been the editors of some of the health science journals in SSA, we aim to share, based on our experience and anecdotal observations, some unique challenges facing these journals. We also analyze the role of collaborations and partnerships as mitigation to these challenges.

Challenges Facing Sub-Saharan African Health Science Journals

External Challenges

To begin, SSA health science journals suffer from a slim authorship base. In particular, the art of writing for scientific publishing is yet to be taught in several tertiary institutions in the region. At best, students who are in training to become health professionals only embark on an exercise in scientific writing in a bid to meet the university requirement to publish their thesis as a prerequisite to graduation. Unfortunately, this requirement to publish is often not accompanied by a writing mentorship program to ensure good writing skills. As a result,

FANUEL MECKSON BICKTON is an Intern Editor at the Malawi Medical Journal and a Pre-Master's Research Intern in the Lung Health Research Group at Malawi-Liverpool-Wellcome Trust Clinical Research Program; LUCINDA MANDA-TAYLOR is with the Department of Health Systems and Policy, School of Public Health and Family Medicine, University of Malawi; RAYMOND HAMOONGA is with the Zambia National Public Health Institute; and ARUYARU STANLEY MWENDA is an associate editor at the Annals of African Surgery.

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manuscripts that are submitted by junior researchers to local journals for consideration for publication can get rejected owing to poor quality and occasional breaches of publication ethics through plagiarism and other forms of scientific malpractice.⁷ Journal editors may attempt to help junior authors improve the quality of their papers through the normal peer-review process and, sometimes, mentoring⁸ (for example, through manuscript writing workshops); however, where no formal and regular structures exist to teach junior researchers scientific writing skills, the quality of their manuscripts will remain greatly impaired. Kumwenda et al.⁹ identified a lack of mentorship of junior researchers by senior researchers as one of the challenges facing young African scientists in their research careers. In that study, one junior researcher had this to say:

"When I first wanted to publish, I needed someone to assist me in turning my dissertation report into a publication. I approached two professors, but they kept postponing the meeting dates until I gave up."

Second, SSA health science journals face poor journal patronage. This is reflected in the researchers' poor response when they are invited by editors to review manuscripts—a situation that may result in a delayed peer-review process of the manuscript and in low-quality publications.

Third, there is the issue of "Impact Factor Fundamentalism,"¹⁰ a situation whereby African researchers prefer to publish their research manuscripts in high Impact Factor journals overseas. Unfortunately, such manuscripts tend to face high rejection rates by those journals because of their lack of or little relevance to their audience. Indeed, research originating from Africa often addresses local problems and is meant for local (African) journals' audiences.^{5,11}

Fourth, there is a rise in the number of predatory journals, which continues to hamper the growth of genuine journals in SSA. Many a seasoned researcher would rather lean on the side of caution, and rightly so, when evaluating requests from SSA journals for editorial assignments, such as serving as a reviewer or associate editor or being nominated to editorial board membership. The strict guidelines that have been put forth as warning flags for researchers to identify predatory journals, although intended for good, do unfortunately place several SSA journals in the category of predatory journal-like category. For instance, many SSA journals are yet to be indexed, have a very low Impact Factor (or lack one entirely), and may comprise an editorial board membership from a single country. All these factors only inadvertently tick all the boxes with regards to being a predatory journal. It is therefore important that more partnerships and initiatives be developed between renowned journals in the global North and such SSA journals that are in their infancy in order to help distinguish them from predatory journals. Such relationships

would boost the confidence of researchers in SSA journals and open a whole array of resources and benefits.

Internal Challenges

SSA health journals face poor sustainability. This is partly due to the low funding priority and support from local institutions to the journals.¹² This lack of a strong funding base hampers the development of the journals and their ability to offer ancillary services such as author outreach campaigns and workshops on manuscript writing in addition to auxiliary services that help improve the international visibility of the journals' publications (e.g., Altmetric). Additionally, the journals have poor succession planning. This situation means that when an editorial staff member leaves the journal because of retirement, resignation, termination, transfer, promotion, or death, there is often no one readily available or prepared to continue the staff member's duties.

The dedication of time and energy to editorial work is imperative to the practice of journal publishing. Although it is not uncommon for journal editors the world over to serve voluntarily in addition to their other personal or professional responsibilities, the general poverty situation in SSA leads its journal editors into dedicating much of their time and energy into taking care of their paying jobs at the expense of their voluntary editorial work. As a result, journal production and metrics such as Impact Factor can suffer, which encourages African academics and researchers to publish elsewhere.

Moreover, the focus on peer-reviewed publications sometimes makes journal editors forget the vital role of dissemination of published research into the media for wider effect. Good working relationships with the media is a missing link toward a wider reach of health science journals in SSA.

Benefits of International Collaborations and Partnerships

Collaborations in research and publishing have been in existence for a while.^{13,14} Although certain authors have decried parachute research—the case in which Southern researchers in North–South collaborations conspicuously get left out of the resulting publications—considerable measures seem to have been put in place to arrest this challenge through meaningful collaborative partnerships.¹³ One such collaborative partnership is the African Journal Partnership Program (AJPP).

AJPP is a partnership between African health and biomedical journals and leading journals published in the United States and the UK, with journals from the United States and UK providing mentorship and training to African journals.^{14,15} The program was born out of an idea conceived in 2003 by the Fogarty International Center and the National Library of Medicine to address the need for capacity building among Africa's biomedical and health journals by partnering

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a select few with leading biomedical journals in the United States and the UK.¹⁶ The AJPP has received support from the Council of Science Editors from the beginning.

The AJPP began in 2004 with four journal partnerships as follows: *African Health Sciences* partnered with *The BMJ*, *Ghana Medical Journal* with *The Lancet*, *Malawi Medical Journal* with *JAMA* and *Mali Medical* with *Environmental Health Perspectives* with the *American Journal of Public Health*. Over the years, the program has grown. When a second contract was awarded for a 5-year period in July 2008, the *Ethiopian Journal of Health Sciences*, *Annales Africaines de Médecine*, *Sierra Leone Journal of Biomedical Research*, *Annals of Internal Medicine*, and *The New England Journal of Medicine* joined the program. A third contract was awarded in 2013 and in 2016, and the partnership program was extended to the *Annals of African Surgery* and *Rwanda Journal of Health Sciences*. In 2018, *The Health Press Zambia* was welcomed as the newest member. Currently, there are 10 African journals paired with six mentor northern journals (Table).¹⁷

The premise behind the AJPP is that, despite the recognized benefits of medical journals to health practitioners, Africa's medical journal production and distribution are low and therefore do not make research from endemic areas available to colleagues on the continent or in the international scientific community.¹⁸ This is due mainly to poor representation of African health and medical journals in international indexing services.¹⁸ A central goal of the AJPP, therefore, was to strengthen the capacities of participating African journals to publish high-quality, relevant academic articles to a standard comparable to the West by emphasizing the need to establish guidelines and platforms for authors to submit manuscripts for publication and by implementing criteria for rigorous scientific peer-review processes for articles that conform to international academic publishing practices in health so that they could be accepted into MEDLINE and other scholarly indexes, thus resulting in wider availability of African health and medical research to the world.¹⁷

Starting with a basic needs assessment,¹⁹ the AJPP looked at equipment, facility, and editorial needs and provided computer hardware, software, Internet connectivity, and training. Workshops on journal management and strategic business planning were offered. A tradition of internships was established with the African journals in order to train up the next generation of editors. In 2014, a qualitative and quantitative review of the AJPP by Sarah Schroter, Senior Researcher at *The BMJ*, identified several key success indicators of the program, including increased online visibility and accessibility owing to an increase in the number of journals indexed in international databases such as PubMed Central and MEDLINE, some journals being awarded Impact Factors, and all journals having websites. Annual evaluations have documented continued progress for the journals.

The AJPP is funded by the U.S. National Institutes of Health with support from the U.S. National Library of Medicine and the Fogarty International Center, and the program is administered by the Council of Science Editors.² In 2017, the Elsevier Foundation joined the partnership by providing a grant for a volunteer training complement.² In a program dubbed "Research without Borders," publishing volunteers from Elsevier spend up to a month working closely with the editorial teams of each African journal.² This has contributed much to recent progress for these SSA journals. The AJPP also receives valuable support from non-journal partners, including ScholarOne Manuscripts and Clarivate Analytics, SPi Global Services, KWF Consulting, Ovid (Wolters Kluwer), and Compuscript.

Future Hopes for Sub-Saharan African Health Science Journals

It is now clear that a lot stands to be gained by all parties through partnerships. Whereas SSA journals benefit from capacity building and expertise development, the western journals continue to reach out to wider authorship base and get new perspectives.^{13,14} What remains now is a scale-up of

Table. African and Mentor Northern Journals in the African Journal Partnership Program.

African Journals	Mentor/Northern Journal
<i>African Health Sciences</i> and <i>Rwanda Journal of Health Sciences</i>	<i>The BMJ</i>
<i>Ghana Medical Journal</i> and <i>Sierra Leone Journal of Biomedical Research</i>	<i>The Lancet</i>
<i>Malawi Medical Journal</i> and <i>The Health Press Zambia</i>	<i>JAMA</i>
<i>Mali Médical</i> and <i>Annales Africaines de Médecine</i>	<i>Environmental Health Perspectives</i> and <i>The New England Journal of Medicine</i>
<i>Ethiopian Journal of Health Sciences</i> and <i>Annals of African Surgery</i>	<i>Annals of Internal Medicine</i>

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the proven working partnerships^{13,14} to include the global South in its entirety, not just a few countries. Additionally, SSA health journals that have benefited from such partnerships should consider taking the mantle and extending this into South–South partnerships that strategically address the peculiar challenges discussed in this essay.

The biggest promise appears to lie in North–South research collaborations that should make efforts to publish segments of the research findings in local journals as long as they are within the partnership and meet agreed criteria regarding editorial policies and practices. This will increase the visibility and quality of manuscripts for the local journals, which will subsequently attract more established authors.

Conclusion

Although improving, SSA health science journals suffer the challenge of infrastructure, finance, editorial expertise, author quality, and indexing. Partnerships such as the AJPP provide welcome injection into local journals' attempts to scale up their editorial and infrastructural capacity. To sustain and extend such gains, the partnerships need to be widened to include the entire SSA region and to co-opt research funding collaborators to publish donor-funded research with select local journals. African governments and development partners should accelerate support to research and research-based education in Africa to build the necessary human capital to further increase research on solving African problems by Africans for Africans.

Conflict of Interest

The authors are editors of the sister journals in the African Journals Partnership Program (AJPP) network that is funded by the National Library of Medicine through the National Institute of Health. Science Editor is a publication of the Council of Science Editors, which is one of the collaborators within the AJPP network.

Acknowledgment

Annette Flanagin (JAMA Network) provided input on the organization and working of the AJPP.

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Cultural and Geographical Representation in the Editorial Boards of Aquatic Science Journals

Rafael Araújo and Geoffrey Shideler

Introduction

Poor gender representation has been identified as commonplace in the authorship of papers across scientific fields. In spite of the association of gender diversity with positive outcomes in the workplace—and its links to creativity and impact—it is widely reported that the fields of science, technology, engineering, and mathematics (STEM) are traditionally male dominated.^{1,2} In the winter 2018 edition of *Science Editor*, Rivera Mindt and coauthors concluded, in a case study involving the journal *The Clinical Neuropsychologist*, that reaching out and keeping a commitment to diversity are strategies worth pursuing to diversify the editorial process and science as a whole.³ However, issues related to underrepresentation can also involve geography, and by extension, culture. In keeping with the 2019 CSE Annual Meeting theme of “inclusion, identity, technology, and beyond,” we wanted to explore geographical and cultural representation in the editorial boards of a field of science that is inherently global (aquatic science). We aimed to explore (1) what is the cultural and geographical distribution and behavior of editorial boards across all titles listed in the Scimago subject category “Aquatic Science,” (2) whether there is a relationship between editorial board composition and scientific output in terms of geographical and cultural representation, and (3) whether journals with higher editorial board richness benefit in terms of measurable outcomes, such as journal rank.

Approach

We downloaded the list of all journals from 2017 for the subject category “Aquatic Science” in Scimago’s Journal

& Country Rank database ($n = 217$), and then recorded all editors listed on those journals’ editorial board web pages ($n = 6248$ editors recorded). The data we recorded included names, countries of institutional affiliation, and editor titles, and we also paired each editor’s country with its appropriate cultural sphere following world divisions of cultural geography (see the “Cultural Geography” page on Wikipedia).⁴ We also recorded information about the journals (name, publisher, country of incorporation, Scimago Journal Rank).

Geographical Distribution and the Cultural Behavior of Editorial Boards

We found most aquatic science journals have editorial boards with fewer than 40 editors. There are titles with editors numbering in the hundreds, but that is not the norm. Cross-checking names and institutional affiliations, we found out that most editors serve exclusively on one board, with 10% of the editor population serving on multiple boards. The majority of multiboard appointees serve on two boards. Occasionally, editors serve on three or more boards, with one individual actively sitting on six boards.

Journal titles were registered primarily in the United Kingdom, United States, the Netherlands, and Germany, and were published predominantly by Elsevier, Springer, Wiley, and Taylor & Francis. All titles in the subject category were published in English. In a few cases, titles were published in a language other than English, but English also was offered as an option for publication. The majority of editors were affiliated with institutions in the United States, United Kingdom, China, Canada, and Australia. Most scientific output (defined as the number of citable documents per calendar year) by country was produced by (top five countries): the United States, China, United Kingdom, Australia, and Canada.

Our next step was to group all nations represented in the database based on their cultural geography. In this regard, we wanted to know if there was correspondence between the cultural sphere of journal countries when compared to (1) the cultural sphere of the editorial population, and

RAFAEL ARAÚJO is Managing Editor and GEOFFREY SHIDELER is Assistant Editor of the *Bulletin of Marine Science*, a journal published by the Rosenstiel School of Marine & Atmospheric Science of the University of Miami, Miami, Florida.

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(2) the cultural sphere of scientific output. We suspected that a journal published in a Western nation might contain an editorial board that is predominantly Western, and that the majority of science output also was emanating from the Western sphere. By comparing the proportions resulting from the data, we found that, as expected, 75% of aquatic science journals are published by organizations in the Western sphere, and this sphere also contained the bulk of editors (71%) and scientific output (60%). In order of importance, next was the Latin American sphere (7% of journals published, 6% of the editor population, 9% of scientific output), and the Eastern and Japonic-Korean spheres (5% of journals published each; 4% and 6% of editor population, respectively; 3% and 5% of scientific output, respectively).

Editorial Board Composition and Scientific Output

In spite of the parity exposed by the cultural geography exploration, when we drilled down to country and considered how the near-equal proportions shown in the cultural spheres' comparisons were expressed on a per nation basis, the data revealed some interesting trends. If we subtracted the percentage of a country's share of scientific output from the percentage of a country's share of editors, it turns out

many countries are revealed as overrepresented on editorial boards—this means the percentage of editors based on these nations is higher than the corresponding percentage of scientific output for that nation. We call this the “editorial surplus” and it is most prevalent in the United States (see Figure 1). On the flip side, many countries are underrepresented, with China as the top country in having an “editorial deficit.”

Interestingly, the question of being in an editorial surplus or deficit goes beyond cultural sphere. For instance, nations in the dominant Western sphere can also be underrepresented on editorial boards (e.g., France, Belgium, Czech Republic, Ireland, Sweden, Norway, Finland); and some nations in other cultural spheres can have an editorial surplus (e.g., Colombia, Venezuela, Chile, and Uruguay, all part of the Latin American sphere; Russia and Romania, Eastern sphere). Many countries in the Global South, particularly in Africa, have low editorial representation, but also low scientific output.

So, why is the United States in editorial surplus and China in editorial deficit? What is causing this disparity? To answer these questions, we looked at every journal to see the geographical relationship between their editors-in-chief (EICs)⁵ vis-à-vis their editorial board members.⁶ What we found is that the collective of EICs based in US institutions mostly oversees editors at other US institutions,

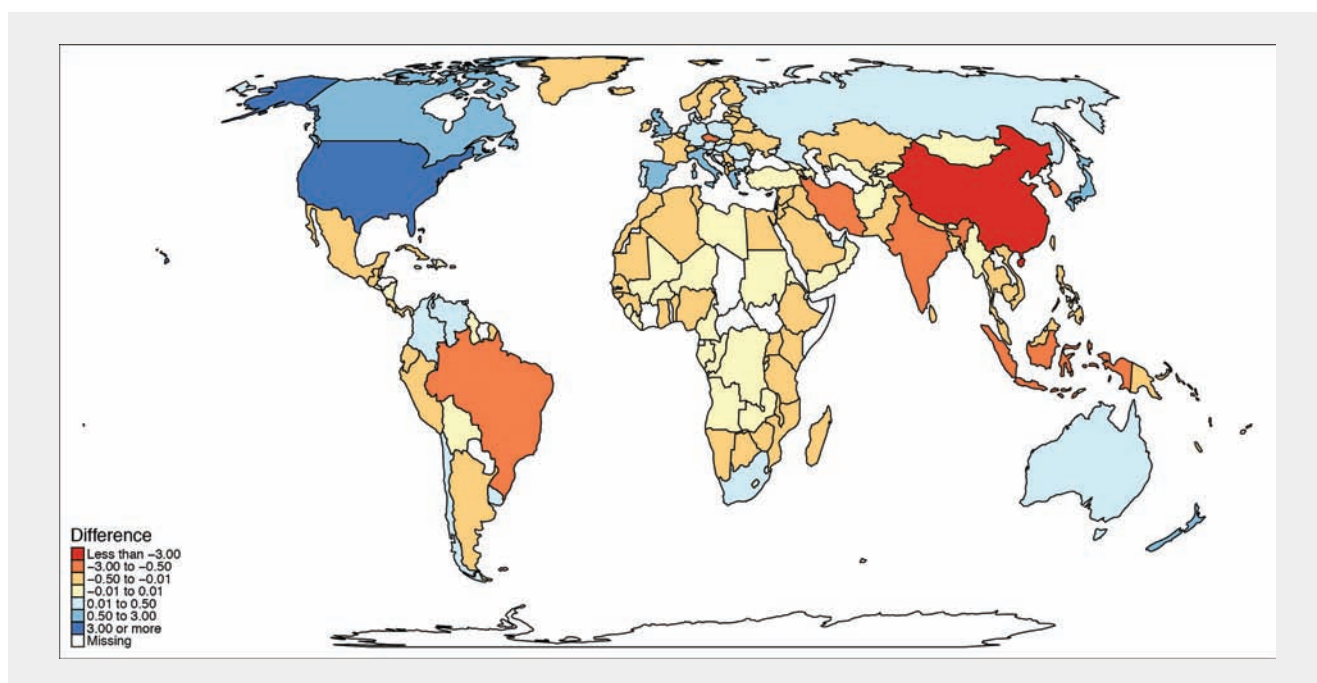


Figure 1. World map showing the relationship between a country's editorial board representation and scientific output. Countries that are on the blue end of the spectrum have higher shares of editorial board representation than they do scientific output (“editorial surplus”), and countries on the red end of the spectrum have higher shares of scientific output than they do editorial board representation (“editorial deficit”). Countries in neutral color have representation and output that are more or less equal, and countries that are white have neither any board representation nor any scientific output.

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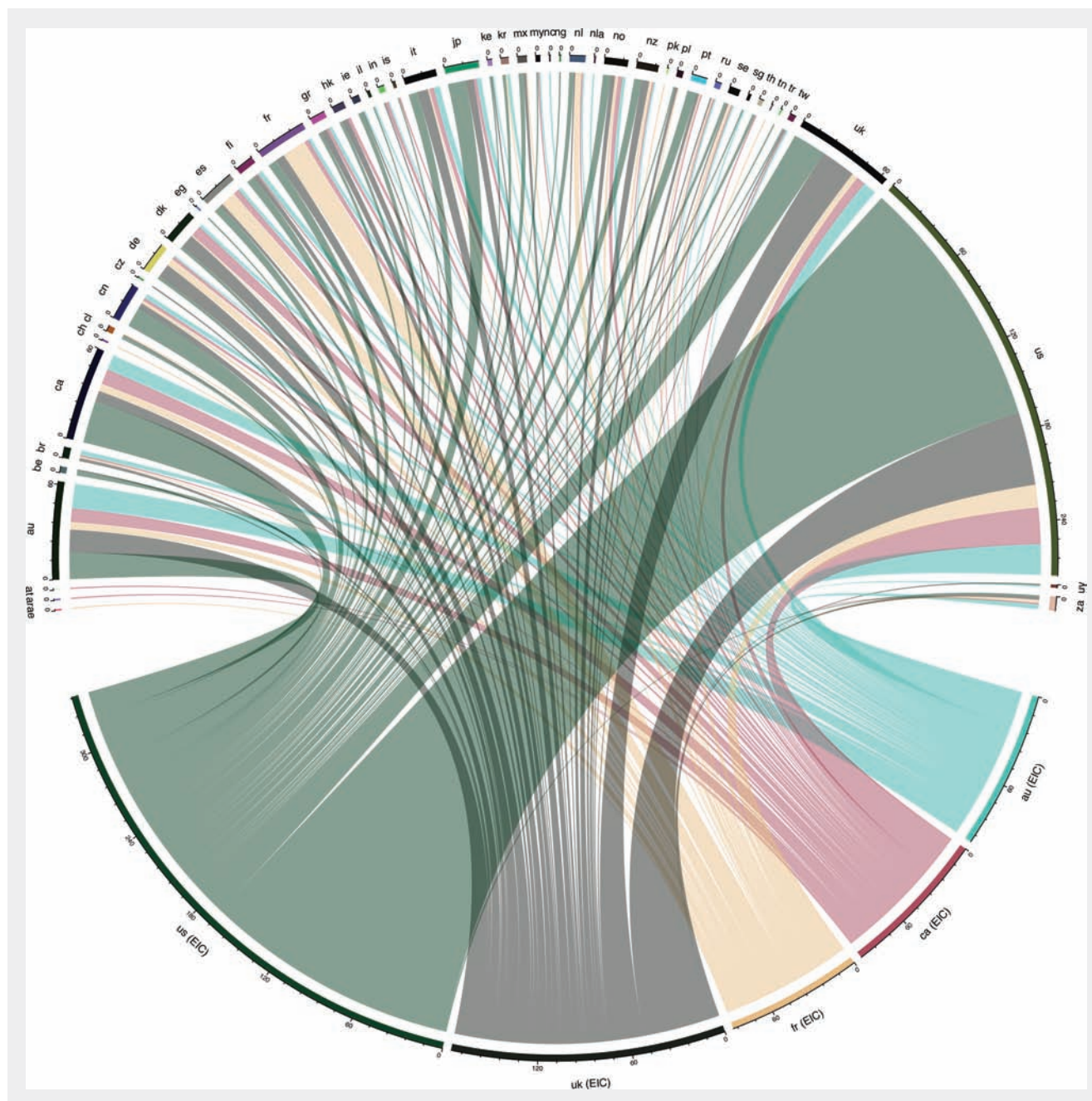


Figure 2. Circle flow chart showing the relationship between editors-in-chief (EICs) and the editors they oversee. Shown are the five most represented countries for EICs, which are the United States, the United Kingdom, France, Canada, and Australia. The lower half of the circle represents the EICs, and the flow to the top half of the circle represents the editorial board members they oversee. For example, the US EICs (olive green) oversee boards that are slightly more than half represented by US editors. Looking at the top half of the circle, it is clear that the majority of US editors are overseen by US EICs. Names of countries are abbreviated using NASA's web country codes.

or in institutions in other Western sphere countries (United Kingdom, Canada, Australia, France; see Figure 2).

The data also show that US EICs oversee board members in many nations (49 total), but these individuals, even if combined, are dwarfed compared to the number of US-

based editors. Other Western nations have similar patterns (for example, France) in which their EICs mostly oversee board members from their home country, and then from other nations; yet the majority of editorial board members belong to their own cultural sphere. An interesting twist is demonstrated

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by nations such as the United Kingdom, Canada, and Australia; their EICs are overseeing mainly US-based editors, followed by editors in their home country, and then by editors in other countries within their own cultural sphere. In short, the abundance of US editors on boards is caused by US-affiliated EICs often selecting (or overseeing) largely US editorial board members. The situation is exacerbated by other nations that also favor the appointment of US-based editors to their boards. For China, the country with the largest editorial deficit, most Chinese-based editors are appointed by US EICs. In addition to the United States and China, EICs from other countries appoint Chinese editors, but in fewer numbers.

Editorial Board Richness and Journal Rank

In spite of the benefits associated with inclusion and diversity, we wanted to explore if there are additional advantages to having a geographically diverse editorial board, such as having a relationship with measurable journal outcomes. Since our data set was extracted from Scimago, we examined the relationship between Scimago journal rank and editorial board richness using a generalized additive model. What we found is that a geographically diverse editorial board might have a positive effect on journal rank (Figure 3). There was a significant correlation between higher geographic representation on a board and better journal ranking.

While richness—defined as the total number of countries represented on a board—is the metric we analyzed statistically, we also were interested in diversity. The diversity metric we

investigated not only accounts for the number of countries represented, but also how their representation is proportioned. For example, a journal with 20 American editors and 20 editors from 20 other countries is not as diverse as a journal with 40 editors from 20 different countries (divided equally). Regrettably, we found that diversity is not common in aquatic science. While there might be benefits associated with a diverse editorial board, the field of aquatic science has few highly diverse boards with a considerable number of titles containing board members mostly from the country in which the title is published or, by extension, from the institutional country of the EIC.

What We Found

Our results indicate that editors of the Western cultural sphere, mainly the United States, dominate the editorial boards of aquatic science journals. US-affiliated chief editors are often selecting (or overseeing) largely US editorial board members. The Western sphere is also where the majority of journals in aquatic science are published, and it also dominates scientific output in this field.

Many countries in the Western cultural sphere—especially the United States, Canada, and the United Kingdom—have greater shares of editorial board appointees relative to their share of scientific output (“editorial surplus”), leaving countries such as China, Brazil, and India with an “editorial deficit.”

For the subject field of aquatic science, we found that editorial board geographic representation is favorably related to journal ranking. On average, the more geographic representation on the editorial board, the better the journal ranking. However, few journals in this subject field have highly diverse editorial boards. We believe this needs further exploration in other fields, and our results suggest that journals should be encouraged to adopt more culturally and geographically diverse editorial board.

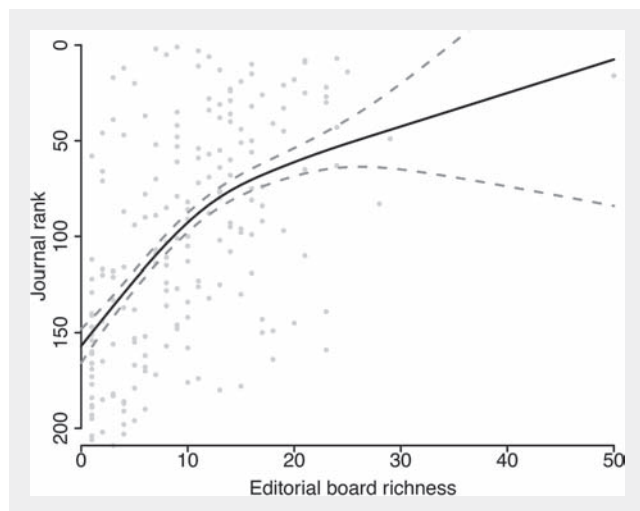


Figure 3. Generalized additive model showing the significant relationship between editorial board richness (the total number of countries represented on an editorial board) and Scimago Journal Rank. As editorial board richness increases, the journal rank improves (please note the inverted y axis). Also evident is that journals with high editorial board richness are rarely very low-ranked journals.

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5. Journals call their top editors by different names; for simplicity, we have grouped them as editors-in-chief.
6. We cannot be certain if these EICs appointed their board, inherited their board, or are in any way responsible for the composition of the board. However, we made the assumption that in all cases they oversee their boards irrespective of how the composition of the board was formed in the first place.

The Complex Relationship of Impact Factors, Open Access Models, and Manuscript Submissions

Lee Ann Kleffman

Introduction

Authors have multiple factors to consider when choosing a journal to submit their work to, from reputation (perception of how well-known and highly ranked a journal is within the marketplace) to speed of publication. The open access (OA) model introduces cost as another factor for authors to consider, with OA journals charging an article processing fee associated with publishing.¹ Societies often host OA journals alongside more traditional, subscription-based models, and in some cases, authors must weigh their options and choose which of those journals could provide the most beneficial platform for their research.

One such society is the American Academy of Neurology (AAN). The AAN hosts many publications, including four research journals: the main journal *Neurology*[®], which recently celebrated its 68th publishing anniversary, and three considerably younger specialty journals: *Neurology*[®] *Clinical Practice* (NCP), *Neurology*[®] *Neuroimmunology & Neuroinflammation* (N2), and *Neurology*[®] *Genetics* (NG) (Table).

As submissions to *Neurology* continued to increase exponentially over the years, the editors recognized an increasing demand for clinical neurology content with a focus on the needs of the practicing neurologist. So, after publishing two pilot issues in print that mailed along with *Neurology*, the first official issue of NCP was published in December 2011. Following its success, the editors identified two additional areas of research that were receiving more submissions than could be published in the parent journal, and in response, launched two more journals, N2 and NG. Both online-only journals follow the growing trend of OA with roots remaining

firmly planted alongside the parent journal. Both continue to experience a growing number of submissions.

In November of 2017, *Neurology* editorial staff and editors consistently noted that manuscripts were often being volleyed back and forth between journals, editors were queried about the same manuscripts multiple times, and manuscripts with solid science were being ultimately rejected due to publishing space constraints. Soon after, the editorial office implemented a mechanism allowing authors the chance to choose prior to submission whether or not they would allow their manuscript to be transferred to another journal if “rejected” from the journal they initially submitted to.

In this “hub-and-spoke model,” all journals are considered first-tier and papers are passed between them in a lateral fashion. Authors are given a choice at submission to select which journal they would like to be considered for, as well as whether or not they would allow their paper to be transferred to one of the specialty journals should the editors determine that it would be better suited to a more specific audience (Figure 1). Alternatively, the spoke journals can be referred to as subspecialty or niche journals intended to address a surplus of submissions in a certain area. This differs from the more traditional cascade model where a portfolio of related journals is ranked and ordered vertically by measured—and perceived—importance.²

By conducting an author survey, I sought to determine the effect that one or more aspects (Impact Factor [IF], journal reputation, cost of publication [i.e., OA], length of time to publication, and whether or not the journal's audience is suitable to the topic) had on authors' decisions to initially submit to a journal and subsequently transfer their manuscript if rejected.

Methods

Using Bench<Press, *Neurology*'s manuscript tracking system and author database, I obtained 4 reports consisting of corresponding authors who submitted manuscripts to any of the four journals between November 17, 2017 (which marked the implementation of the new lateral submission

LEE ANN KLEFFMAN is Managing Editor, *Neurology*[®] *Genetics*, American Academy of Neurology, Minneapolis, Minnesota.
Correspondence to lkleffman@neurology.org.

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Table. *Neurology*® journals.

	Neurology	Neurology: Clinical Practice	Neurology: Neuroimmunology & Neuroinflammation	Neurology: Genetics
Year launched	1951	2011	2014	2015
Publishing model	Print and online, 48 issues/year	Print (US only) and online, 6 issues/year	Online only, 6 issues/year	Online only, 6 issues/year
OA model	Hybrid	Hybrid	Complete OA	Complete OA
Content type	Peer-reviewed articles, editorials and reviews to enhance patient care, education, clinical research, and professionalism	Peer-reviewed articles and editorials on topics of clinical import and insightful analyses of practice management and health policy issues	Peer-reviewed articles, editorials, and reviews to enhance patient care, education, and clinical and translational research	Peer-reviewed articles and editorials in all areas of neurogenetics including rare and common genetic variations, genotype-phenotype correlations, outlier phenotypes as a result of mutations in known disease genes, and genetic variations with a putative link to diseases
Impact Factor	8.689*	None	7.353*	Will receive in 2020
Indexing	MEDLINE/PubMed, Embase, Scopus, Biological Abstracts®, PsycINFO®, Current Contents®, Web of Science®, CrossRef, and Google Scholar (funded articles are indexed in PMC)	Embase, Scopus, CrossRef, Google Scholar, and Emerging Sources Citation Index (funded articles are indexed in PMC)	PMC, Scopus, Embase, Google Scholar, DOAJ, CrossRef, Science Citation Index Expanded, and Journal Citation Report	PMC, Scopus, Embase, Google Scholar, DOAJ, CrossRef, and Emerging Sources Citation Index

OA = Open Access; PMC = PubMed Central; DOAJ = Directory of Open Access Journals.

*All Impact Factors obtained from Clarivate Analytics 2018 Journal Citation Reports®.

mechanism), and April 12, 2018. I came up with a total of 2,372 authors after removing duplicates to make sure that anyone who submitted more than one manuscript would not receive the survey invitation twice. A short survey was created with 9 mostly multiple-choice questions designed to determine the factors that influenced authors' decisions to submit to the initial journal of choice and, if rejected from the first journal they submitted to, their reasons for choosing to transfer (or not transfer) to another journal within the *Neurology* family. We also included questions regarding author satisfaction with the manuscript transfer process for those who chose to have their manuscript transferred, and the paper's eventual outcome for those who chose to discontinue their *Neurology* submission. As of May 1, 2019, 686 responses had been received, and the survey was closed to new responses.

Results

The survey found that journal reputation (the way authors perceive a journal's relevance as compared to other

journals in the marketplace) was the most influential factor that authors considered prior to submission, with 84.05% of responses, followed closely by journal IF (defined as a measure of the frequency with which the average article in a journal has been cited in a particular year³) at 63.10%. About half of the respondents gave strong consideration to the intended audience of the journal to which they submitted their work. Ranked lowest on the scale were speed of publication and whether or not a journal was OA (Figure 2). When it came to the single most important factor authors considered, the perception of a journal's reputation ranked highest for authors at 56.67%, with only one author citing the ability to choose OA as the top priority (Figure 3). All authors were given the ability at submission to choose whether or not to be considered by another journal if the editor felt the topic or intended audience was more suited to another journal within the *Neurology* family. The majority of authors who responded to the survey (74.52%) chose not to be transferred to another journal, with most citing a concern regarding the absence of IF for the referral journal

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Submission progress:

Submission Guide

- ☐ Manuscript Information
- ☐ Additional Metadata
- ☒ **Neurology Journal Referral Option**
- ☐ Search Terms
- ☐ Authors
- ☐ Reviewer Suggestions/Exclusions
- ☐ Files Metadata

HELP **Neurology Journal Referral Option**

All papers submitted to Neurology are evaluated carefully, including whether the focus may be better for one of our subspecialty journals. If the Editors consider your manuscript more appropriate for the audience of another Neurology Journal (Neurology: Clinical Practice, Neurology: Genetics, or Neurology: Neuroimmunology & Neuroinflammation), you can provide approval for the Editorial Office to move the manuscript to that Journal after it has been reviewed by the Editors and/or outside peer reviewers of Neurology. **This approval does not affect your consideration within Neurology.**

We cannot guarantee acceptance by the referred Journal.

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☒ Yes, please consider my submission to the below journal if not accepted in Neurology

☐ [Neurology: Clinical Practice](#)

☐ [Neurology: Neuroimmunology & Neuroinflammation*](#)

☐ [Neurology: Genetics*](#)

*PLEASE NOTE: Neurology: Genetics and Neurology: Neuroimmunology & Neuroinflammation are open access journals with an [article processing charge](#) if published. By checking the "Yes" box above, you acknowledge there is a fee associated with publishing.

Figure 1. Screenshot of submission mechanism allowing lateral transfer.

(Figure 4). Authors were also given the option to write in a response, with one respondent noting that they submitted to *Neurology* (an established journal with an IF) and did not wish to be transferred; although one of the spoke journals

could allow their work to reach a more specialized audience, they first wanted to vet other more desirable journals (with regard to IF and reputation) outside of the *Neurology* family. Another author cited concern that choosing the option for

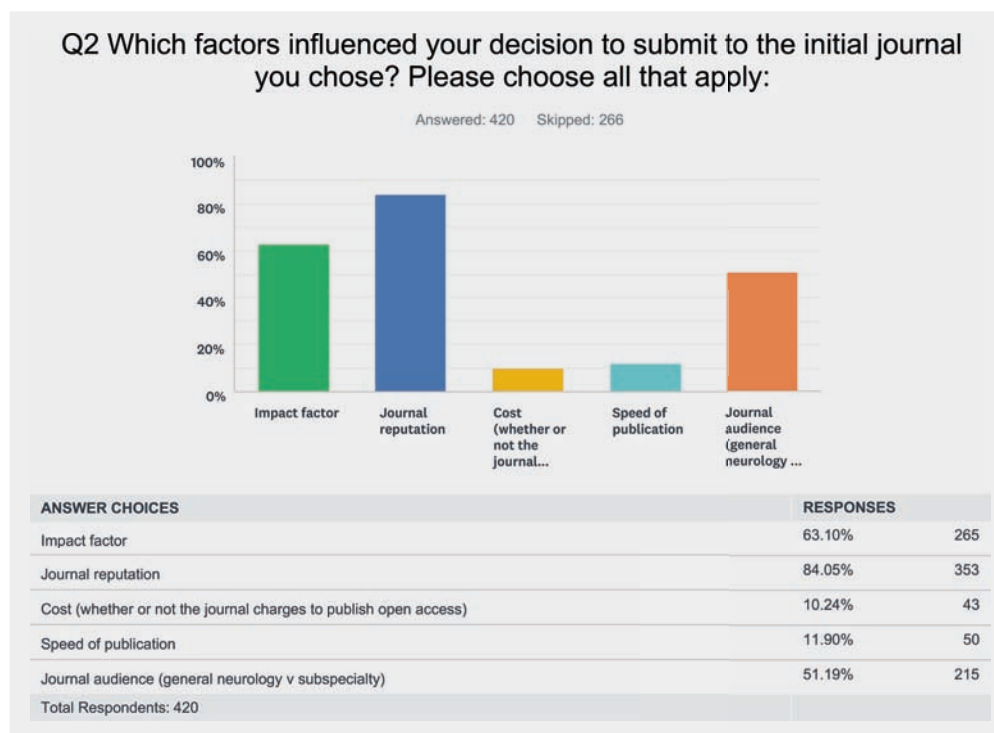


Figure 2. Summary results of answers to survey question #2.

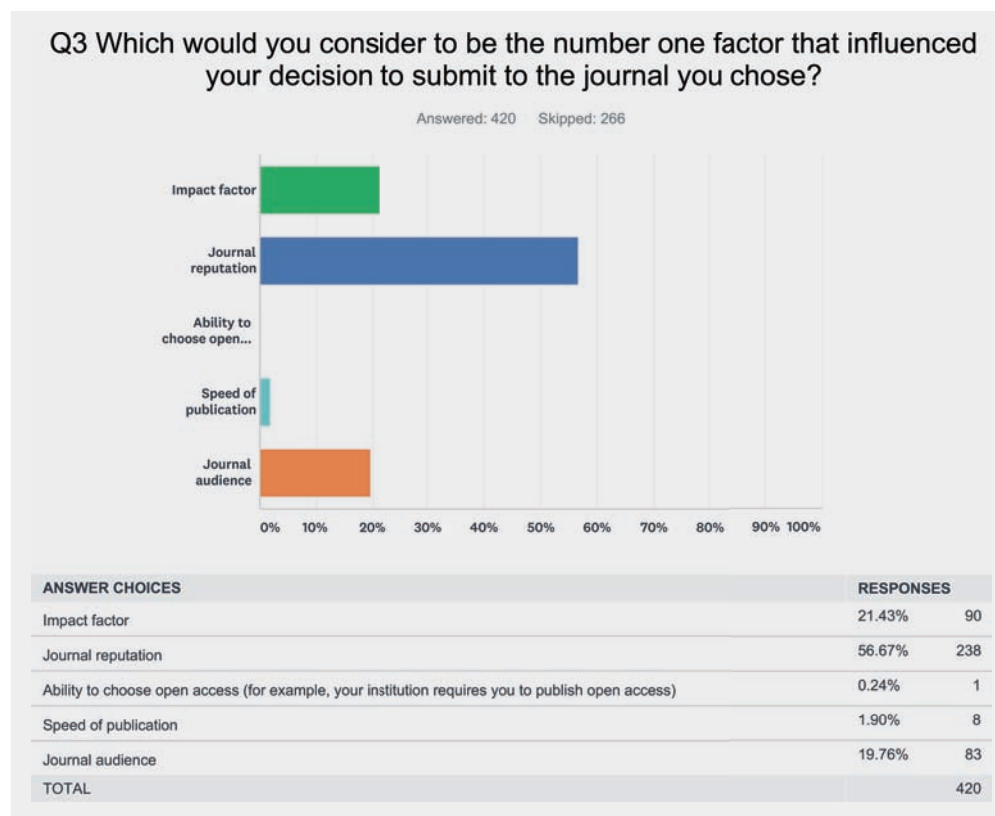


Figure 3. Summary results of answers to survey question #3.

potential transfer at the time of initial submission would result in their article not being given fair consideration and instead receive immediate rejection and transfer. Despite this potential concern, only 6.19% of authors that chose transfer eventually reported dissatisfaction with the process. The majority of those dissatisfied authors reported that they were unaware of the lack of IF and/or cost associated with publishing in the journal to which they were transferred. Full survey results are available as supplemental data.

Discussion

At one time, the decisions authors had to make when submitting articles were more straightforward. Authors would choose a journal for submission by weighing a journal's reputation and intended audience. In a world where an increasing pressure is put on authors to maximize visibility of their work, they now also must consider the extent of the audience and the speed with which their work can be made available to the public. The benefits of OA are many, namely broad and rapid dissemination of content that is not limited by subscription costs; however, as a growing medium, these journals often lack the branding and reputation of more established journals, as well as require a sometimes substantial fee associated with publishing.

Authors and institutions have traditionally placed a high value on IF, even viewing it as synonymous with a journal's reputation. However, as technology moves forward, OA options have been introduced that will allow the public to access research more freely, as well as provide authors with a way to make their research available to wider audiences outside of more conventional academia and research circles. Some institutions and funding bodies are doing their part to encourage the adoption of OA as well. The UK's seven research councils (RCUK), for example, have an Open Access Policy stating that researchers are expected to publish any peer reviewed research papers which acknowledge Research Council funding in journals that are compliant with the RCUK policy on OA. All papers must include details of the funding that supported the research and, if applicable, a statement on how the underlying research materials—such as data, samples, or models—can be accessed.⁴ It is clear from the survey data that only a small percentage of authors place a high value on the availability of publishing OA should their paper reach acceptance (Figure 2). Whether this is due to a lack of understanding the benefits, concerns about funding the article processing charge, or simply a reaction to institutional requirements remains to be seen (and could merit additional research). While some entities have begun

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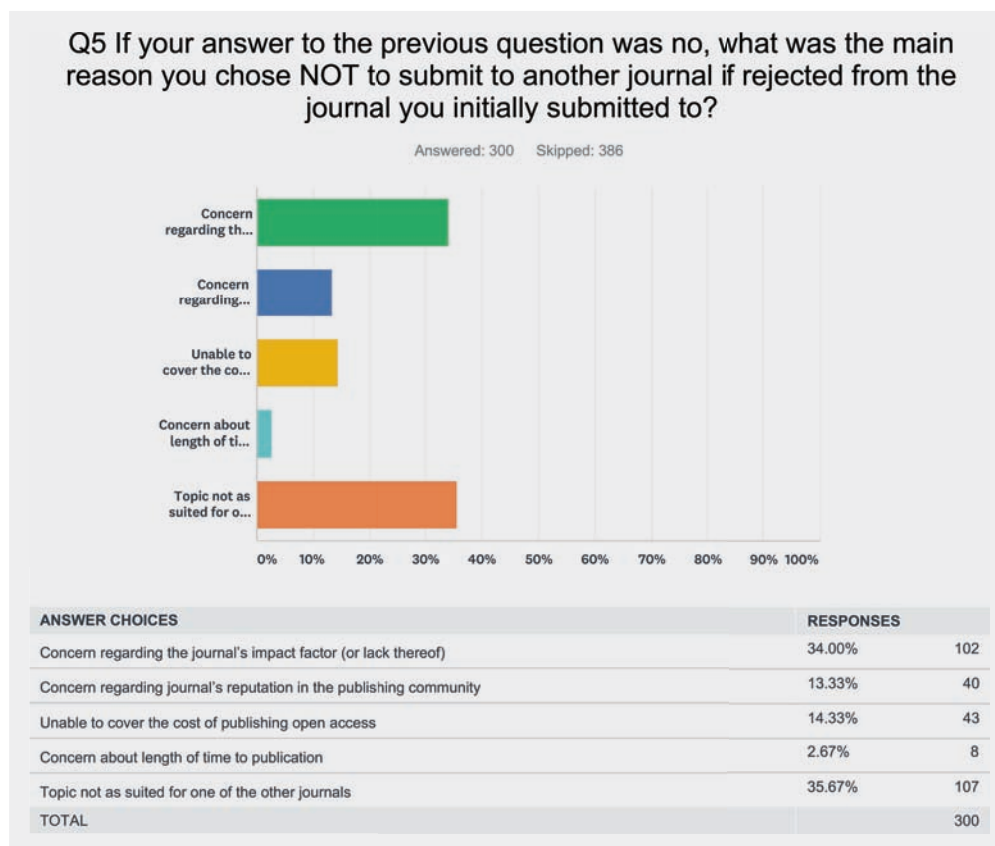


Figure 4. Summary results of answers to survey question #5.

to encourage authors to recognize the weaknesses of depending upon IF alone,⁵ the survey shows that the majority of authors and institutions still depend largely upon IF and perceived reputation to assess a journal's standing within the medical publishing sphere. In addition, there remains concern among authors with the manuscript transfer process, its transparency, and its effect on the review process.

This study provides editors with information that will allow them to make more informed decisions regarding the transfer of manuscripts within a family of journals, as well as urges editorial offices to rigorously refine the process of lateral submission in order to provide increased transparency for authors undergoing the submission and eventual review process. Because the lateral transfer model is less familiar than the cascade model, the challenge remains properly communicating to authors that one journal is not any more important than any other when it comes to a family of journals and that the target audience must play a weighty role. Possible solutions to this challenge at *Neurology* have included increased marketing efforts, streamlining of the review process, and detailed editorial office feedback regarding the lateral referral process. It is possible that some combination of

the above would result in increased author understanding, but additional research is required. Even so, knowledge regarding the likely influence of OA on author submissions allows context for launching new journal models in the future as well as provides necessary information to societies who may be considering the implementation of OA journals alongside (or in place of) more traditional business models.

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Against the Firewall: Society/Journal Relationships

MODERATORS:

Emilie Gunn

American Society of Clinical
Oncology
Alexandria, Virginia

Emma Shumeyko

National Academy of Sciences
Washington DC

REPORTER:

Andrea Kunz

Society for Immunotherapy of
Cancer
Milwaukee, Wisconsin

The interactive CSE 2019 session “Against the Firewall: Society/Journal Relationships” presented hypothetical cases for attendees to work through together in order to find agreeable solutions for maintaining the separation between journals and the non-profit societies that own them. Before reviewing case examples, the moderators provided a brief overview that defined firewalls and why they are important for societies and journals. It was emphasized that firewalls between journals and societies maintain credibility for the journal, ensure that journal content is properly scrutinized for quality and lack of bias, and prevent the journal from becoming a “mouthpiece” for the organization. Upholding the journal’s editorial independence and separating it from the society also provides greater opportunities for conflicts of interest to be properly managed in a secure fashion. Moderators also discussed that, with clear communication, strong leadership, and consistency, journal staff and editors can help enforce firewalls and make sure that they remain effective.

While firewalls can often provide clear definitions on how journal issues are to be handled, the moderators explained that there are situations in which both journals and societies can be impacted regardless of what protocols are already in place. These situations require special attention. To further explore such instances, the moderators presented four hypothetical cases for group discussion and resolution. It was noted that one size does not fit all when trying to apply solutions to journal issues. As such, group discussion allowed attendees to learn from one another and see the issues from different lenses that they may not have considered independently.

The hypothetical cases that follow were discussed and resolved during the remainder of the session. Possible

solutions were shared by the moderators that journals may choose to employ depending on their unique situations.

Case One: How to handle a situation in which the journal editor-in-chief will be stepping into the role of the society’s president

To ensure the financial and ownership responsibilities of the society remained separate from the editorial independence of the journal editorial board, the editor-in-chief role was temporarily filled by an associate editor while the individual previously sitting as editor-in-chief served a two-year term as the society’s president. At the end of the term, the associate editor stepped down for the individual to resume their role as editor-in-chief. A new policy was also established that specifically stated that the same person cannot hold both the editor-in-chief and society president roles at the same time.

Case Two: If, how, and when to involve the society in the review of a society program report submission authored by an independent group of authors

The journal added program organizers from the society to serve as peer reviewers in order to suggest changes directly to the authors. However, since their roles as reviewers were strictly instructional to ensure data presented about the program were accurately reported by the authors, they were not granted the authority to make decisions on the manuscript.

Case Three: Responding to society board directors who believe that they deserve guaranteed review for any manuscripts they submit to the society’s journal


As a general rule of thumb, the journal determined that people who hold leadership roles in the society should not be given preferential treatment when submitting to the society’s journal. As such, the journal did not offer guaranteed review to the board director. Instead, the journal shared information on the appeal process it has in place for all authors in the event that the board author felt they were being treated unfairly.

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Case Four: Addressing pressures to appoint a recommended individual to a newly-vacant editor-in-chief position without formally opening the opportunity to the public

Unfortunately, editorial staff does not always get a final say in major decisions about journal leadership. The journal

editorial staff can, however, encourage the adoption of a formal policy for filling vacant editor-in-chief positions and suggest the use of interim terms when a full search is not possible at that time. In this case, without a formal policy in place, the society filled the editor-in-chief vacancy with the recommended individual in lieu of a formal, public search.


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Everything You Always Wanted to Know About Freelancing but Were Afraid to Ask

MODERATOR:**Jessica LaPointe**

Managing Copy Editor
American Meteorological Society
Boston, Massachusetts

SPEAKERS:**Ellen Lazarus**

Freelance Copyeditor
Washington, DC

Peter Olson

Senior Copyediting Coordinator
Sheridan Journal Services
Waterbury, Vermont

Nikki Zielinski

Freelance Copyeditor
Lakewood, Ohio

REPORTER:**Allyson King**

Managing Editor
Allen Press
Lawrence, Kansas

Freelancing can be a rewarding career, but prospective freelancers are often met with the daunting task of entering a career with little support. Ellen Lazarus, Peter Olson, and Nikki Zielinski outlined the questions anyone interested in freelancing should ask their potential employers as well as many they should ask themselves.

Ellen Lazarus began the presentation by listing many of the questions she has asked as well as some she wished she would have. While English language editing has a low-barrier for entry, it can be frustrating to navigate the landscape. Some vendors may be more transparent than others, so it is always a good idea to ask questions: How are manuscripts assigned? Can I reject assignments? Are pay-scales different for "second-look" editing versus a first edit? How do I specify my workload or schedule vacation time? She also expresses the importance of asking questions about the work itself: While most freelancers are expected to be their own help desk, does the vendor have resources available? How should I handle issues of confidentiality and security?

Peter Olson then followed up with a vendor's perspective on these relationships. Vendors often prefer to use freelancers for cost-efficiency, flexibility, scalability, and availability. When reaching out to a vendor, potential freelancers should be sure to have a brief and focused cover letter and a proofread resume. Many vendors will require a test to prove their freelancer's abilities, so to get ahead, offering early to take any required tests will be seen as a proactive move. Vendors who use freelancers should make sure they explain the arrangement for their own benefit as much as for anyone freelancing for them. Communication between both parties is critical. In general, freelancers should let vendors set the tone of their relationships but then take responsibility for responding promptly, asking questions early, and giving and receiving feedback courteously. "Ultimately, your vendor just wants you to do your best work."

Nikki Zielinski rounded out the seminar by providing an insight into the work-life balance that can be difficult when freelancing. She emphasized the importance of tracking time and money to prevent future problems. A freelancer should be aware of how long they work on a page or any extras that may be asked of them so that they can accurately track exactly how much an hour of their time is worth. Budgeting time and creating a defined workspace can go a long way in creating a healthy balance. Some of the drawbacks to freelancing include finding community in solo work and the lack of a human resources department. She suggests finding a tax professional early. Creating an LLC may be an advantage to combat any major security questions and legality. Despite these challenges, freelancing provides many upsides, like the flexibility to work any hours and the ability to take breaks or travel, which can aid in creating a more ideal work-life balance.

The tips from Lazarus, Olson, and Zielinski provide a great starting point for anyone considering freelance opportunities.

Plenary Speech and Regular Session: Self-Care and Work-Life Balance: Let's Do It!

PLENARY SPEAKER:

Bernadette Mazurek Melnyk

Vice President for Health Promotion
University Chief Wellness Officer
Dean and Professor
College of Nursing
The Ohio State University
Columbus, Ohio

MODERATORS:

Megan Amaya

Assistant Professor of Clinical Nursing
The Ohio State University
Columbus, Ohio

Shari Leventhal

Executive Editor
American Society of Nephrology
Derwood, Maryland

SPEAKERS:

Anna Jester

Director of Sales & Marketing
eJournalPress
Rockville, Maryland

Emilie Gunn

Managing Editor
ASCO
Alexandria, Virginia

Amy McPherson

Director of Publications
Botanical Society of America
Saint Louis, Missouri

Jonathan Schultz

Director, Journal Operations
American Heart Association
Baltimore, Maryland

REPORTER:

Kristen E. Anderson

Senior Managing Editor
Allen Press, Inc.
Lawrence, Kansas

- Physical activity: 30 minutes, 5 d/wk
- Healthy eating: 5 fruits and veggies per day
- No smoking
- Alcohol in moderation (single serving): 1 drink per day for women, 2 per day for men
- 7 hours of sleep
- Regularly engaging in stress reduction.

Maybe physical activity can start out at 15 minutes a day, but ideally see how much time can be added. She reminded attendees to "Beware of the Chair," and that if one sits for 3 hours a day, the risk for heart disease can increase by 30%. Listeners also took note of her provided 3 Ps for happiness—pleasure, purpose, and pride:

- Enhance pleasure: look for ways to add fun and joy to your daily routines;
- Enhance purpose: increase opportunities to use your strengths to achieve meaningful goals;
- Enhance pride: look for ways to align your job with your passions; reflect upon your accomplishments (none are too small).

If one has ever sat in a 2-day stretch of meetings, or felt overworked, or felt like that mental, 10-minute break escaped with the next set of e-mails that rolled in, this annual meeting's plenary speech and work-life balance and yoga sessions provided some insight into how to tackle self-care and how to reach that goal of work-life balance.

Day 2 of the meeting started with a yoga workout that got attendees up "bright" (well, we were almost awake) and early to stretch out limbs, find focal points, balance, and increase depth of breath. The session was a great kick-off to Bernadette Melnyk's talk on "The Importance of Self-Care and Work-Life Balance for Optimal Well-being and High Performance: Strategies that Work!" She immediately drew folks in with her high energy and her passion for wellness (we were ALL awake then!). Melnyk gave attendees insight into an evidence-based recipe for preventing chronic disease because 80% of it is preventable with just a few healthy lifestyle behaviors, and encouraged tackling them one item at a time:

She also encouraged attendees to stay aligned with their dreams and passions, saying "What will you do if you know you cannot fail in the next 3 to 5 years?"; and not just to *think* it through, but physically write it down. She emphasized that physically writing it down can make a larger benefit in one's life. Melnyk had a strong emphasis on the positive perspective, and not the negative. She said, "Catch your automatic negative thoughts. When you notice your mood has changed or you feel stressed, ask yourself, 'What was just going through my mind?'" Turn those negative thoughts into positive to feel emotionally better.

As with any adjustment, or new idea, it does take practice. Behavior change does not happen overnight. She realized this for viewers as well as for herself. One of her more powerful clips compared one physically ill person with one physically capable person: Will workers be in a hospital bed in the years to come or will workers start the healthy lifestyle trend today, in hopes of avoiding bed confinement and chronic disease as they age?

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Those struggling to balance it all could definitely take at least one key point away, in hopes of applying it somewhere. So many want to get it “right,” which was a wonderful tie-in to the session, “Work-Life Balance: Striking it Right.”

Anna Jester provided her useful “gameboard of life” (Figure) as a reflection of her year and what she aims to do each year:

- At the beginning of the year, be an idealist and set goals. It is a good time to assess the more than 40-hour week. What is this good for?
- Be sure two vacations are set: one mid-way through the first half of the year, then another in the fall. Those vacations should be e-mail breaks as well! Step away from the phone and computer and soak up the vacation experience.

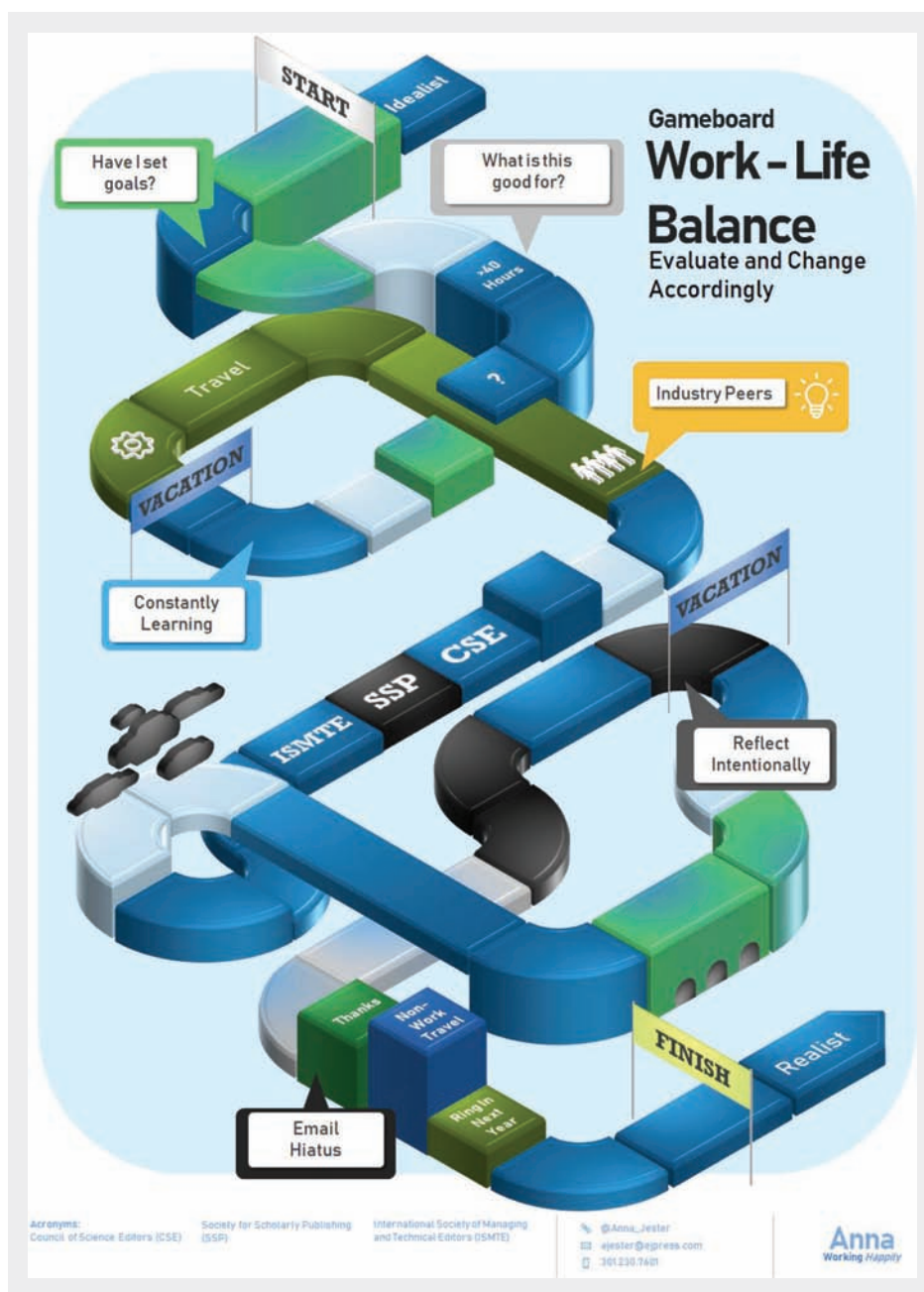


Figure. Anna Jester presented a work-life balance example of her typical year. It outlines the idealist start to its realist end.

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- Look for learning opportunities and initiatives.
- Meetings such as CSE, Society for Scholarly Publishing, and International Society of Managing and Technical Editors tend to lump pretty close together, so take an educational opportunity there if funds and time permit.
- Be sure one is reflecting where possible. And be intentional with it. A good time may be around the Thanksgiving season.
- The finish line (end of the year) will be approaching, so one may end up a realist, but see where life and work went, and get excited for the year to come.

She mentioned that it is ok not to reach all the goals—one is perfect. And the process is definitely continual; if the above pointers do not happen in the order shown in the Figure, that is OK too—hitting the reset button, at any time along the way, is acceptable.

Another perspective was offered by Emilie Gunn, whose workplace has implemented a “Results Only Work Environment” (or “ROWE”), adapted from the book *Why Work Sucks and How to Fix It*.¹ The staff can work where they want and when they want, as long as the work is completed. Additionally, employees are free to take as much time off as they need, and office meetings are kept to a minimum. If meetings are needed, there must be a clear purpose and an agenda. In order to accommodate this atmosphere, Gunn offered the following points that are a “must”:

- Cross-train between employees
- Share resources, especially communal files
- Use clear communication: share calendars, use IM/text, and follow a set format for email subject lines (e.g., “RR 6/1/2019: Society is looking for financial aid”: RR = response requested, the date by which a reply is needed, and the descriptor of the e-mail)
- Use available technology, such as forwarding phones and WebEx
- Accept responsibility for the outcome of the work
- Prioritize tasks
- Outsource where possible
- Think creatively about how time is spent
- Use the “yes” reply carefully

She mentioned many find it hard to say “no,” but it can feel good when one does and when it is appropriate. Employees need to be mindful of stretching themselves too thin.

And more good news? The concepts mentioned may apply to personal lives as well; for instance, cross-train

laundry duties and share a communal calendar at home. (Don’t we hope the “no” can apply at home too!)

While this ROWE concept may not be possible for all, with rigid situations, there can be flexibility, and that is exactly what Amy McPherson indicated. When possible, a physical activity around the lunch hour may be helpful, such as a simple walk. If that is not possible, McPherson recommended at least some form of regular physical exercise is helpful.

As many work conferences occur, or other traveling opportunities arise, take advantage of the situation. Can one work and play at the same time? She mentioned her husband taking a trip for work to Paris, and she thought “I need to figure out how I can go!” It is one of the pleasures of being able to have a remote office; have tools available to go anywhere.

She also added that attendees need to feel allowed to be bored. Unplugging can provide the best outlet to give the brain some much-needed rest. And ultimately, “How you feel is caught up in other things; for instance, the philosophy ‘feel right, eat right.’ If I’m feeling good, I’ll make better choices.”

Jonathan Schultz was also seeking flexibility adjustments in a traditional workday. Schultz started to question whether everyone needs to have the 8:00 to 5:00 day? And does everyone need to be at work at the same time? So he went behind the scenes and started working with staff to slowly shift schedules around to better fit their needs. For instance, one staff person may need to work 7:00–3:00 in order to pick up children from school at 3:30. But that does not mean everyone should. A fellow staffer might need a different timeframe for a completely different reason, and that is acceptable. He wanted to accommodate schedules, since in turn, no person’s life is the same, so when possible, different timetables may permit.

Once implemented, the employee benefits were rewarding: greater work coverage as a whole and a happier, healthier staff. Similar to Gunn’s presentation, he added that before a new change takes place, promoting cross-training, keeping up communication, embracing technology, and setting expectations were some of the recommendations to tackle first.

Today, can folks say, “I don’t live to work” (as Gunn also mentioned in her piece)? One would hope the takeaways from Melnyk’s talk and the “Work-Life Balance” session give this question some thought...and some answers! Let’s see what the rest of 2019 will look like: there is still time.

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The *AMA Manual of Style*: Updates and Sneak Peaks of the 11th Edition

MODERATOR:

Stacy Christiansen

Managing Editor
JAMA
Chicago, Illinois

SPEAKERS:

Stacy Christiansen

Managing Editor
JAMA
Chicago, Illinois

Annette Flanagin

Executive Managing Editor and
Vice President of
Editorial Operations
JAMA Network
Chicago, Illinois

Cheryl Iverson

Managing Editor (retired)
JAMA Network
Chicago, Illinois

REPORTER:

Amanda Hand

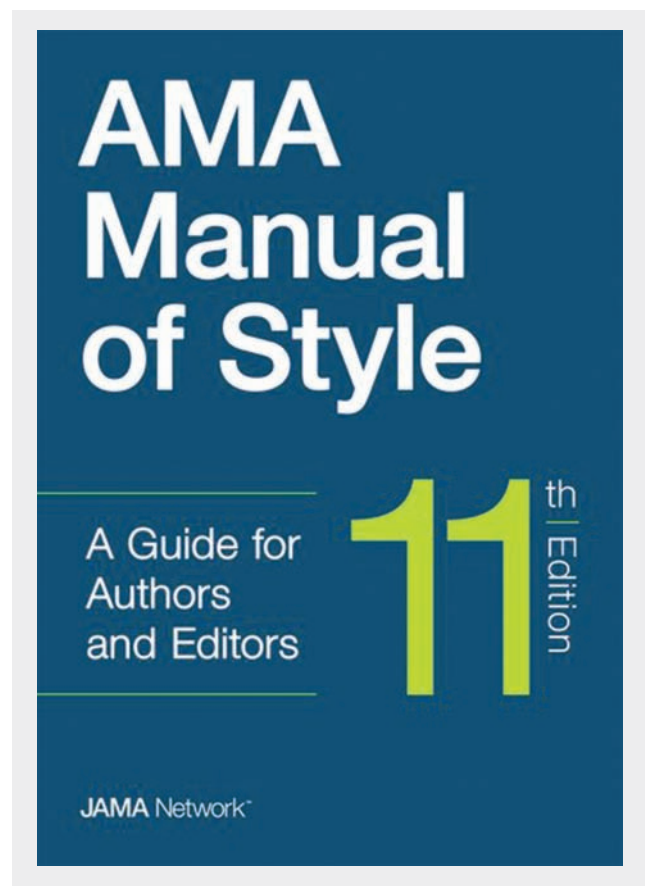
University of Tennessee Institute
of Agriculture
Knoxville, Tennessee

In 2019, the *AMA Manual of Style* will be unveiling its 11th edition. Therefore, three members from the *AMA Manual of Style* Committee highlighted recent updates and gave a sneak peek of the upcoming edition, including changes in references, formatting tables and figures, grammar, nomenclature, corrections and pervasive errors, authorship, data sharing statements, and updates to guidance about ethical review of research and informed consent.

For references, the publisher location will no longer be required due to many publishers having multiple locations. Additionally, the availability of books via online retailers make the physical location of publication unnecessary. Secondly, although DOIs and URLs will remain the last item in a citation, they will no longer be followed by a period in order to easily copy and paste the link. Finally, the references chapter in the new edition will include updated guidelines for social media references, preprints, apps, podcasts, databases, and other digital references.

While tables and figures were previously formatted to capitalize all major words in column and axis headings, tables and figures will now be formatted to sentence-style capitalization for all headings. Moreover, all table cells will be left aligned.

Recently, the *Chicago Manual of Style* and the *AP Stylebook* incorporated the use of “they” as a singular pronoun. The *AMA Manual of Style* will also accept “they”



as a singular pronoun to alleviate the awkwardness of writing sentences in the plural and to help protect patient identities. Furthermore, grammar guidelines for posting on social media sites, especially Twitter, are introduced in the new manual, encompassing the need for proper capitalization, avoiding text jargon, and permitting the use of contractions and other recognized symbols, such as &, <, =, etc.

In regards to nomenclature, drugs included in manuscripts will no longer require the manufacturer's location, and the use of aliases and nicknames for genes and proteins should be discouraged.

Because 21% of retractions are due to author error and not misconduct, the JAMA Network is hoping to minimize

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the stigma associated with retractions. Therefore, responses to editorial corrections and errors have been overhauled and basic protocols have been established. For minor errors in the text, the article ought to be corrected online, indicating the correction on both the HTML and PDF versions, and a correction notice is unnecessary. However, for more substantive errors, a correction notice is published, the article is corrected online for both the HTML and PDF versions, and the correction notice and corrected article are reciprocally linked. Finally, pervasive errors, inadvertent errors that require correcting important or numerous data throughout the text, may require either a retraction and replacement or simply a retraction. According to the new guidelines, a letter of explanation and a correction need to be published for articles with pervasive errors that do not affect the conclusions or interpretations, and have no statistically significant changes. However, a retraction and replacement is necessary for articles with valid science but with pervasive errors that change the direction, the significance of the results, and/or interpretations. The replacement article will retain the original DOI and any usage and citation metrics. Finally, a manuscript with pervasive errors that invalidate the science by changing the direction, the results, and/or the interpretations should be retracted.

Because 21% of retractions are due to author error and not misconduct, the JAMA Network is hoping to minimize the stigma associated with retractions.

Updates in authorship include new definitions for contributors, authors, group authors, and collaborators. Interestingly, co-first authors and co-corresponding authors are now accepted. However, co-corresponding authors must designate one author as the primary point of contact. Information on co-first authors can be displayed in the Acknowledgments section before the list of author contributions.

In 2018, the International Committee of Medical Journal Editors (ICMJE) began requiring the publication of a data sharing statement for clinical trials. A number of journals, research sponsors, and government agencies also have policies to encourage data sharing. Although a data sharing statement is optional for other study types, these statements are now required for clinical trials, but actual data sharing is not required.

Although initially released in 1991, the *Regulations for the Protection of Human Subjects*, or the "Common Rule," was amended in 2017, with the revisions taking effect in January 2019. The *AMA Manual of Style* has modified its ethical review requirements to mirror the Common Rule changes. Under these changes, research involving human participants may be exempt from institutional review board (IRB) review based on the level of risk posed to the study participants. For example, low-risk research exempt from IRB review would be secondary research from an existing dataset that includes no identifiable participant information. Moreover, research with cadaver specimens is exempt because study participants must be living. Nevertheless, investigators should not determine for themselves if their study is exempt from IRB review; instead, they should follow national regulations or their institutional policies. If research includes study participants, authors should indicate in the Methods section that written or oral informed consent was obtained and indicate whether compensation or incentive was given to the study participants. If consent was waived or not needed, the authors should indicate why consent was not obtained using institutional policy or national regulations. Finally, the updated Common Rule allows a single IRB to review and approve studies conducted at multiple sites or centers in the United States, unless the study is conducted in other countries or governed by other US laws.

This is a brief synopsis of the changes set to be implemented later this year in the 11th edition of *AMA Manual of Style*. Until then, any style or policy updates are available at <https://www.amamanualofstyle.com/page/updates> and news and notes are provided on Twitter at @AMAManual.

Using Production Metrics to Solve Problems: Case Studies

MODERATOR:

Michael Friedman

Acting Co-Director of
Publications and Journals
Production Manager
American Meteorological Society
Boston, Massachusetts

SPEAKERS:

Heather DiAngelis

Manager, Journals Production
American Society of Civil
Engineers
Reston, Virginia

Victoria Koulakjian

Content Production Manager,
Journals
American Speech-Language-
Hearing Association
Rockville, Maryland

Theresa Fucito

Senior Manager, Publishing
Operations
AIP Publishing
West Babylon, New York

REPORTER:

Bethanie Rammer

Managing Editor,
Communications
African Society for Laboratory
Medicine
Addis Ababa, Ethiopia / Nashville,
Tennessee

journal metrics used by publishers and vendors. This session presented case studies of how production metrics were applied to address real-world production problems.

First, Heather DiAngelis of the American Society of Civil Engineers presented her case on a production backlog and long acceptance-to-publication turnaround times for the 34 journals she and her team manage. She began collecting volume and turnaround time data, then examined how the backlog and turnaround times changed as various workflow changes were implemented. When these two metrics were tracked and analyzed against mitigating factors, several culprits emerged and were easy to see in the data (Figure 1). The first was holidays; the second was staff changes, not only team members leaving but also the “trickle down” effect of senior staff leaving and being replaced by team members promoted to fill that position. The impact of these events on both metrics—and the difficulty recovering from them—was easy to see as the backlog and turnaround times increased over the end-of-year holidays and when staff took time off or changed positions at the organization. Less easy to see in the data were smaller events, such as brief staff absences, the comparative competency of individuals, and

This session, moderated by Michael Friedman of the American Meteorological Society, was a follow-up to a 2018 Annual Meeting session,¹ which explored a variety of

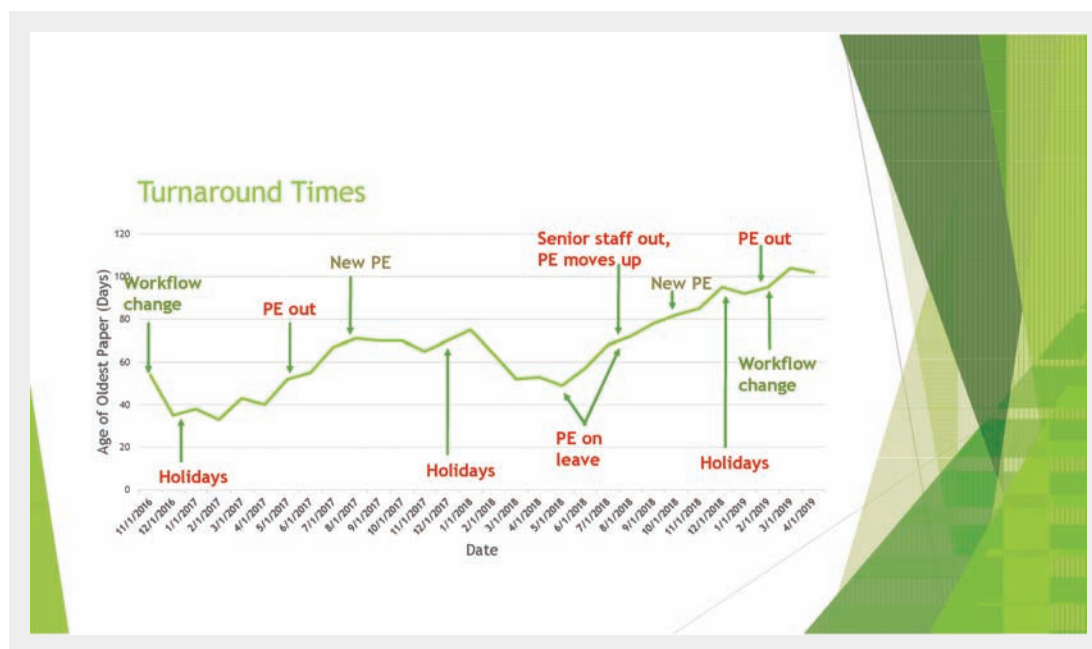


Figure 1. Turnaround times and how workflow changes influenced those times for ASCE journals.

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changes in the attitude or motivation of staff, which could also affect the metrics.

Next up was Victoria Koulakjian from the American Speech-Language-Hearing Association, who also used production data to examine workflow issues. In this case, an examination of days from acceptance to publication, task duration reports and article information identified an increase in volume as well as other production-related challenges, such as static resources and staff levels. Three main challenges were identified: too much time and energy being spent on copyediting and proofreading, production stalling when articles arrive with incomplete or incorrect materials, and competing priorities taking away from production tasks. The team tackled the first problem by revising their approach to editing by moving their copyediting to a company rather than using freelancers, reducing the number of rounds of review and query by sending author proofs at a later editing stage, and having their production editors focus on project management rather than on content. To reduce production backlogs due to articles missing materials, they provided clearer requirements to authors for necessary elements such as disclosures, copyright forms, figure quality, and better training for staff to identify problems and began holding articles back from starting the production process until all required materials were in hand. These interventions were successful, but created a new problem: times from acceptance to publication began to rise because articles missing items were being held. To address the final issue—competing priorities—the team put a focus on holding regular status meetings to identify and predict delays through review of workload reports and open, honest discussions of challenges.

The last speaker was Theresa Fucito of AIP Publishing, who described an unexplained, daily production backlog, which the usual metrics said should not be there. She conducted an end-to-end review of their entire in-house process to address what tasks were being done, why tasks were being done, how tasks could be done differently and whether tasks required a human to do them. Staff were observed and asked questions about why a task was done a certain way. The team then assessed whether this was

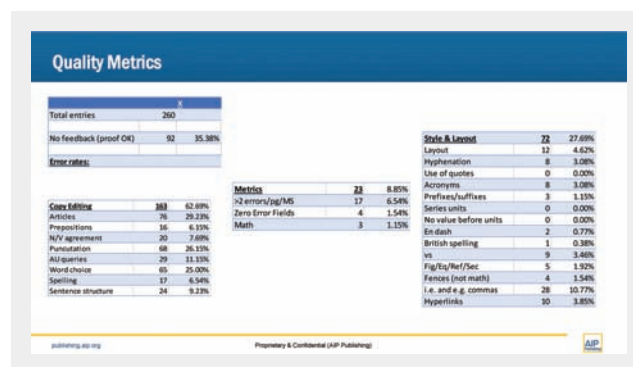


Figure 2. Sample of quality metrics for an AIP journal.

the ideal place in the process for this task and whether the best approach was being used. A number of ‘quick wins’ were identified, such as eliminating redundancies (e.g., copyright checks already completed earlier) and automating processes where possible (e.g., renumbering of references). They implemented a change in workflow that focused on a “touch-it-once” approach and, interestingly, asked staff to work on their production tasks FIRST during their day and address emails at the end of the day. This resulted in a time savings of 50 minutes per day per person. When it appeared that the copyediting and composition vendor was introducing errors, her team created a “quality metric” to assess and quantify those errors, which were then summarized and provided in a report to the vendor to inform areas that need improvement (Figure 2). The combined changes to their process resulted in a 16% improvement in author proof turnaround times.

Although some of the problems identified by speakers in this session were still in the process of being solved, production metrics clearly played a critical role in identifying the major contributors to problems. Metrics then assisted with pinpointing the causative issues and informing the most effective courses of action to correct the problems.

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Turning Your Research into an Article/Poster

MODERATOR:**Mary Warner**American Pharmacists
Association
Washington, DC**PRESENTERS:****Alethea Gerding**American College of
Prosthodontists
Chapel Hill, North Carolina**Barbara Gastel**Texas A&M University
College Station, Texas**Liz Haberkorn**American Pharmacists
Association
Washington, DC**REPORTER:****Judy Connors**Owner, Do It Write Editorial, LLC
Thornton, Pennsylvania

Being in the midst of a research project I hope to turn into an article and/or poster, I found this presentation to be comprehensive, concise, and extremely helpful for a first-time poster presenter. Moderator Mary Warner of the American Pharmacists Association opened the session by reminding the audience that the essence of scientific discovery is in research and the sharing and implementation of those findings; conferences like CSE and International Society of Managing and Technical Editors (ISMTE) where articles and posters are abundant is one way of information sharing.

Remembering that a poster is a visual art form and, specifically in the scientific publishing arena, a visual abstract of sorts, will inform the main components of your poster so that it is easily readable, quickly understood, and attracts attention. The three presenters discussed different aspects of poster/article presentation and, by the conclusion of the session, attendees were well equipped to prepare either.

Alethea Gerding of the *Journal of Prosthodontics* opened the discussion with brainstorming ideas for a poster topic: Do you have an innovative solution to a common problem? Is there an uncommon issue you have dealt with and, if so, how was it resolved and what did you learn along the way? Are there any existing tools that can be applied to a new problem?

Once the poster topic has been decided upon, there are five considerations for developing your data:

1. Describe the problem you are solving.
2. Provide detailed step-by-step actions you took; screen shots work well as visuals.
3. Share failures and successes, e.g., what worked and what did not.

4. Analyze your results. What did you discover, solve, resolve?
5. Ensure your project and subject are applicable across the board to other journals.

Building on Gerding's excellent opener, Barbara Gastel, Professor of Integrative Biosciences and Medical Humanities at Texas A&M University, offered detailed guidelines and resources for turning research into either a poster or article. The first step, which is obvious but often overlooked is to obtain the Author Instructions or Guidelines and follow them! This will give you a much better chance of an acceptance for your article or poster than if the publication and/or meeting team needs to go back and forth with you on formatting and reporting requirements. See the Figure for other considerations for the design of your poster and its content.

Be sure to include your contact information (full name, degrees, affiliations, email and best phone contact number) so that you are easily reachable for inquiries. Doing a poster without these details is like purchasing an ad without your phone number!

Also important is considering "spinning" your content into different formats: a poster can then become a PowerPoint presentation, the PowerPoint can become an article, an article turns into a blog or a book chapter, etc. This takes a little while but it is a good investment and will save you research time down the road when your content is picked up for another use and your memory may not be as detailed as you would like when it comes to the specifics of your poster or presentation.

Many of the same components are critical when writing a journal article and Gastel advises to identify your first-choice journal early on so you can customize your writing style and formatting to their guidelines. Once again, obtaining and following the guidelines offered to authors for that publication are seminal to your article preparation as is familiarizing yourself with articles previously published in past issues of the journal. This not only enables you easily to see the formatting but also gives you the sense of the writing voice the journal is accustomed to. More on voice later.

The usual structure for journal articles is IMRAD style:

Introduction: What are the questions?

Methods: How did you try to answer them?

Results: What did you find?

Discussion: What does it mean?

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- Obvious but often overlooked: Obtain the instructions, *and follow them!*
- Consider the context, and:
 - Design the poster for rapid understanding
 - Realize that a poster is a largely visual medium
 - Consider the poster basically an illustrated abstract
- Choose a suitable overall design:
 - Columns
 - Ample white space
 - Large enough graphics
 - Limited text (generally less than 1000 words)
- Craft a title that informs and attracts:
 - Well-focused, concise, shorter better
 - Catchy title, not a journal article
 - Large Type (about 72 point type)
 - Not all capital letters
- Choose suitable graphics:
 - Engaging
 - Reflective of the main messages
 - Easily understood (graphs rather than tables)
 - Include captions and, if warranted, credit lines
- Structure the text for easy reading:
 - IMRAD format (introduction, methods, results, and discussion)
 - Large enough body text (probably at least 24 point)
 - Unjustified right margin
 - Concise wording
 - Short paragraphs
 - Bulleted text for lists
- Include your contact information
- Proofread the poster
- Prepare several oral presentations of various lengths for different venues (presentations, podcast, etc.)

When writing, draft sections in whatever order makes most sense to you and revise, revise, revise. Then, get feedback and revise more. Remember, peer reviewers and journal editors are your allies—they want good, solid science to publish so give it to them.

The final presenter, Liz Haberkorn, discussed writing with style and finding your research voice. Good writing is concise, clear, comprehensive, and can also be consistent and creative. Best practices include

- Avoiding clichés: You know what you want to say; use YOUR words to say it.
- Start strong: A great intro paragraph pulls in readers.
- Emphasize your main points.
- Organize your paper so it flows sensibly, this is as important in short as in long articles.
- Take risks with your writing style but never compromise your credibility for creativity.
- Ending stronger: Your intro pulls the readers in; your outro makes them *think* and will help you make an impression.

Resources are central to preparing a poster or journal article and the presenters provided a list of recommended ones for the audience.

Article Writing Sources:

- *How to Write, Publish, and Present in the Health Sciences* by Thomas A. Lang (American College of Physicians, 2009)
- *How to Write and Publish a Scientific Paper*, 8th edition, by Barbara Gastel and Robert A. Day (Greenwood Press, 2016)
- "Preparing the Four Main Parts of a Scientific Paper: Concise Advice" by Barbara Gastel (<http://www.authoraid.info/en/resources/details/1322/>)
- Selected other items in the AuthorAID resource library (<http://www.authoraid.info/en/resources/>)

Poster Sources:

- *Designing Conference Posters* (<https://colinpurrington.com/tips/poster-design>)
- "I Have the Abstract: How Do I Make It into a Poster?" by Michelle E. Stofa (<https://c.ymcdn.com/sites/www.amwa.org/resource/resmgr/Conference/2017/SessionRoundtableHandouts/AbstractToPoster.pdf>)
- "Creating Effective Poster Presentations: The Editor's Role" by Devora Mitrany (Science Editor 28(4), 2005; <https://www.councilscienceeditors.org/wp-content/uploads/v28n4p114-116.pdf>)

A Picture's Worth 1,000 Words: Disseminating Research Through Graphical and Visual Abstracts

MODERATOR:

Carissa Gilman

Managing Editor
CANCER, American Cancer
Society
Atlanta, Georgia

SPEAKERS:

Dr Mary Dott

Online Editor
*Morbidity and Mortality Weekly
Report*, Centers for Disease
Control and Prevention
Atlanta, Georgia

Andrew Smith

Production Operations Manager
Cell Press
Cambridge, Massachusetts

REPORTER:

Jamie Scott

The JAMA Network
Chicago, Illinois

Scientific publishers continuously face the challenge of how to produce clear and accessible research for their audiences. In an ever-advancing technological world, the challenge has extended to how to distill that research into concise portions for social media and busy audiences, who increasingly search for information on mobile phones and tablets, and usually while time is of great importance. A growing answer to this problem is graphical and visual abstracts: easy-to-digest pictorial summaries of an article's key points.

Moderator Carissa Gilman gave a brief introduction to the topic by explaining that the terms *graphical abstract* and *visual abstract* are often used interchangeably because there are no universally accepted definitions for the two. However, she described their differences in that graphical abstracts typically contain one panel that gives a brief snapshot of the article, while visual abstracts contain a more detailed three-panel display of key questions, interventions, and outcomes. Both approaches have the benefit of helping researchers identify and share what is relevant to their research. Gilman also stressed that these abstracts should be seen as a preview to an article, not a substitute. The tricky part is getting a message across, especially regarding who it is for and what kind of study it is from, in limited words.

Andrew Smith then shared the successful integration of graphical abstracts into the publishing process at Cell Press (Figure 1) in a presentation titled "Graphical Abstracts: From

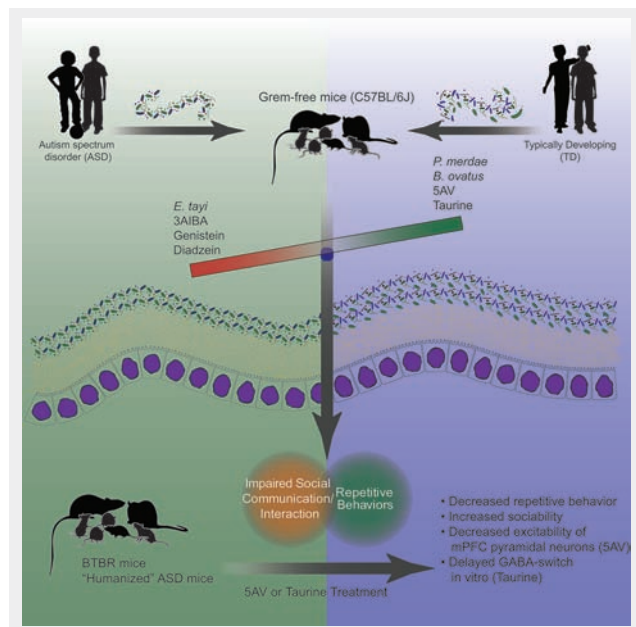


Figure 1. A 1-panel graphical abstract from Sharon et al.¹ *Cell*.

the Future to Today." He explained that when new online functionality for articles—including tabbed navigation, integrated multimedia, and graphical abstracts—was first introduced at Cell Press in 2010, it was revolutionary and seemed futuristic but, through years of evolution, has now become routine. As part of that evolution, Cell Press conducted a concentrated effort to help train authors on creating effective graphical abstracts, so now Cell Press uses abstracts that are produced by submitting authors. This means less work for the editors, especially after a library of design examples was established that authors can draw from.

Two years after launching graphical abstracts, Smith said that Cell Press had garnered enough experience to create guidelines for the abstracts,² including (1) have a clear beginning and end, (2) provide visual indication of the biological context and results, (3) be distinct from any

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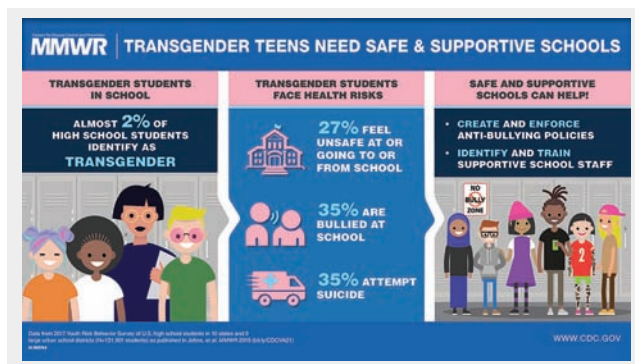


Figure 2. A 3-panel visual abstract recently published in *MMWR*.

figures or diagrams in the article, (4) emphasize new findings without including excess detail from previous literature, (5) avoid the inclusion of features that are more speculative, and (6) do not include data items of any type (all content should be in the graphical form).

The lessons learned while perfecting this process include keeping the product simple without losing its innovation and that authors will do the work of creating the graphical abstract if they know it will add value to their articles and if instructions are clear (“2 big ifs,” Smith warned, though establishing guidelines help). The reward, however, is an excellent visual, which always helps to draw in more readers, Smith said. There is additional “bang for the buck” because the visual can be scaled and reused for multiple platforms, including social media, websites, and presentations.

The second presenter, Dr Mary Dott, described the use of visual abstracts at the Centers for Disease Control and Prevention’s *Morbidity and Mortality Weekly Report (MMWR)* (Figure 2). “Because communication is changing rapidly, with new obstacles to reach audiences, publishers really have to think about creating compelling materials that will attract attention,” she said.

The best way to do this is to tell a story through the abstract in order to invoke emotion with intention and create meaningful calls to action. Paraphrasing the founder of visual abstracts, Dr Andrew Ibrahim,³ Dott outlines how

to do this through the following steps: (1) focus on the user experience, (2) narrow down the key messages, (3) prototype quickly to find what works, (4) solicit feedback and study other designs, (5) prioritize key messages over completeness, and (6) balance your design creatively with thoughtful restraint and clarity of purpose.

In *MMWR*’s first attempts to publish visual abstracts, Dott said that they tried to adhere to a 1-week timeframe, in line with their publishing schedule. However, they found that it was difficult to do a quality job in that short amount of time. After a few attempts, they settled into a formula for their three-panel visual abstracts: (1) the main message on risk, (2) the report’s data trend/results, and (3) the actionable public health message. Dott also said that using fewer words, and using action words directed at a specific population, has worked best for them. *MMWR* now uses a 3-week timeline with multiple rounds of review through editors and graphics to complete its visual abstracts.

During a question-and-answer period following the presentations, audience members expressed gratitude to the presenters for sharing their experiences establishing successful production of graphical and visual abstracts. For many, it is seen as a daunting task. Gilman ended the session by emphasizing what Smith and Dott discussed: It is important to be open to taking different approaches to using visuals, particularly while establishing your process, and to find what works for your organization.

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The Ethics of GDPR

MODERATOR:**Jennifer Cox**

Editorial Client Manager
J&J Editorial, LLC
Cary, North Carolina

Jennifer Mahar

Managing Editor
Origin Editorial
Pembroke, Massachusetts

SPEAKERS:**Pamela Miller**

Special Projects
New England Journal of Medicine
Waltham, Massachusetts

David Riley

Editor-in-Chief
Integrative Medicine Institute

Heather Tierney

Manager, Publication Ethics
American Chemical Society
Washington, DC

REPORTER:**Liz Haberkorn**

Managing Editor
American Pharmacists
Association
Washington, DC

I was not sure what to expect as I entered the GDPR session. After all, I had to Google just what “GDPR” meant when I agreed to report on this session. Part of my interest in attending the “ethics clinic” was to educate myself on an unfamiliar topic. As it turned out, the session would begin with a short but thorough rundown on just what GDPR stood for, literally and figuratively: General Data Protection Regulation (GDPR) is a regulation in European Union law that pertains to data protection and privacy for all individuals within the European Union. It also pertains to the export of personal data outside the European Union.

But I’m American! What does this possibly have to do with me?

As it turns out, GDPR affects anyone who has a publication, works on a publication, or has a publication that has a contractual relationship with a publisher. This became apparent while the presenters led discussions on cases that involved GDPR ethics and compliancy. The ethics clinic was sponsored by the Editorial Policy Committee and the Committee on Publication Ethics (COPE). The two organizations come together to provide up-to-date information for ethical issues in publishing. In this ethics clinic, we explored the ethical side to GDPR, privacy practices, and how to handle these rules within the editorial office, as publishers and editors.

Each member of the panel presented a case to the audience, four cases in all, and the audience, all seated at round tables, were to discuss each case among themselves, weighing the pros and cons of the situation. They were to consider: Was this case ethical? Was it GDPR compliant? What would YOU do if you were the editor/publisher involved in this particular case? Perhaps you have had your own experiences with GDPR, which you were invited to share

with the group. It was more of an open-ended discussion rather than a session, after all.

And maybe you had an experience but were unaware that you were actually experiencing a GDPR situation.

A brief review of the cases follows.

Case 1

The first case involved “right to be forgotten” legislation about the removal of a paper that had the potential to ruin reputations (i.e., libel). The journal was willing to retract the article in question, however, the original article would still be available per policy. The consensus of the audience was that the copyright clause the authors signed should be taken into consideration, and whether the authors agreed to the journal’s policy that stated these terms.

Case 2

The second case involved an author list of those who had “opted-in” or “opted-out” to being contacted for future surveys. Other than these two lists, a list of authors who neither opted-in nor opted-out was provided as well. After discussion, the audience seemed to agree that the best solution was to use both opted-in and neither-opted lists for contact, as long as those neither-opted authors were U.S. citizens.

Case 3

The third case involved “terms of use” issues regarding an online writing course that was launched before GDPR was put into effect, and what that course had to do in order to become GDPR compliant going forward. Points to consider consisted of length of storage data from everyone who took the course and resided in the EU; server location; type of data collected; opt-in/opt-out requirements; and legal review of the material.

Case 3B

This case stemmed from Case 3 and involved a person who had taken that same online writing course but had since moved out of the EU. So the question became: Who had jurisdiction over his information?

It is important to note that no one on the panel was a lawyer, and therefore could not provide a legal perspective or solution in any of these presented cases. Many a comment from the audience of primarily editors and publishers was a demand to speak to their lawyers.

The CSE Editorial Policy Committee greatly appreciates your ideas and suggestions and values your comments and input from the community in general. You are encouraged to reach out to the CSE Editorial Policy Committee members.

Building and Managing a Taxonomy: How to Manage All of the Cooks in the Kitchen

MODERATOR:
Susan Willner

 American Society of Nephrology
 Washington, DC

SPEAKERS:
Helen Atkins

 American Chemical Society
 Washington, DC

Scott Dineen

 The Optical Society
 Washington, DC

John Magee

 Gale, A Cengage Company
 Farmington Hills, Michigan

REPORTER:
Kelly Newton

 Society for Neuroscience
 Washington, DC

Thoughtfully planned for and implemented taxonomies allow publishers to better sort, understand, and leverage content—which may span decades of back content and thousands of articles. However, creating or revising a subject-specific taxonomy involves several stakeholders with their own motivations and perspectives, and therefore requires coordination and a delicate balance of interests. The speakers in this session gave practical guidance on building and managing a taxonomy, defining the goals and scope of a project, evaluating success, and managing stakeholders.

John Magee started the session with the question, “Where do you start when you don’t know what to do?” Though a project to create a taxonomy begins with a general desire for better content organization, the primary consideration needs to be how users interact with the taxonomy and what are the hoped-for benefits. Some examples noted by Magee are enhanced search, such as search filtering or related content, and organizing a catalog. Once the primary use case is established, publishers can consider details like the level of required or preferred granularity, language and syntax, how content will map to other taxonomies or external standards, and budget and time considerations. Though a significant factor in any project, Magee purposely noted budget and time last, advising publishers to start by focusing on the ideal user experience. Any trimming to meet budget or time constraints can then be designed around the identified goals and then optimized to reduce impact on the users. In order to achieve the best results throughout the

process of constructing and implementing a taxonomy, it is imperative for publishers to continue to ask how people will use the vocabulary

The Optical Society (OSA) covers a broad, multidisciplinary field with many different content intersections. Scott Dineen described the creation of a controlled optics and photonics thesaurus—including 2,400+ terms and over 5,000 synonyms—and the several use cases that grew out of it: replacing legacy codes, providing search and browse by topic, displaying similar articles, identifying reviewer candidates, and performing trend analysis and targeted marketing. The results of each of these applications were mixed: Displaying similar articles and identifying reviewer candidates were successful, but the others were less so. These successes shared a common bond in that they drew from the taxonomy without revealing it for user interaction. The most significant limitations were in the cases, such as trend analysis and targeted marketing opportunities that required high-level concepts combined with granular taxonomy terms. High-level concepts and understanding require organizational agreement, which is naturally sometimes difficult across a diverse organization, as well as regular revisions by subject matter experts.

Helen Atkins echoed Dineen’s final points about the need for organizational agreement and provided an overview of stakeholder considerations. It is the job of the publishers to balance, mediate, and guide the different stakeholders toward consensus. She identified three general groups involved in developing a taxonomy: management, subject matter and taxonomy experts, and other internal stakeholders. Approval and commitment from management can be earned by presenting the advantages of the taxonomy to them, but Atkins warns against overpromising anything, as additional resources would be needed for all additional applications.

Taxonomy experts will advise on structure, process, and logic, and while it is useful for them to have basic familiarity with the topics covered, they should not be subject matter experts. Their distance from the details of the content itself enables them to see the big picture and not overemphasize certain subjects or topics, as subject matter experts are likely to do. However, a lack of subject matter experts will lead to what Atkins called “interesting misunderstandings,” such as

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around the genetics-specific definition of “hedgehog” and the physics-specific definition of “charm.” Balance between the two types of experts is vital.

Other internal stakeholders can include any other internal departments, including marketing and/or membership. For these groups, while it's useful to identify potential use cases that appeal more to their own priorities, it's important to stress the primary goal or planned application. Often, stakeholders further removed from the process of building a taxonomy believe all applications are possible once the structure is created. As Dineen identified in his case study, this is far from the case. Planning for multiple applications is essential. And as Magee discussed, the primary use cases must always remain at the forefront and not be “hijacked” by additional ideas.

During the question-and-answer session, an attendee asked if there is a difference between revising a taxonomy or building one from scratch. The speakers directed the focus back to identifying the goal; adding a new category

or emerging field would require a revision with a subject matter expert, whereas bad structure is better dealt with by starting over fresh. The speakers also reiterated that in order to avoid a full-scale overhaul it is important to maintain the taxonomy by trimming useless or aged categories.

Another audience member asked about the implications of taxonomy, in conjunction with the evolution of search and how search can or should be innovated. The speakers noted that search has become simpler over the years, as users adapt to Google. Users are more likely to look at related content and relevance ratings, and to filter results, than they are to drill down through categories in an advanced search. With that behavior, search should leverage useful results directly to users in other ways: the taxonomy should run behind the scenes to drive a “more like this,” relevancy rankings, and filters. By properly and thoughtfully implementing taxonomy—especially behind the scenes—users can have a more successful relationship with your content.

I am Sorry, Who Are You Now? Navigating Mergers and Acquisitions in the Vendor Space

MODERATOR:

Angela CochranAmerican Society of Civil
Engineers
Reston, Virginia**Alison O'Connell**CoKo Foundation
South Hampton, New Hampshire

REPORTER:

Alaina WangsgaardWestern North American
Naturalist
Provo, Utah

SPEAKERS:

Michael Di NataleBioOne
Arlington, Massachusetts

In the current climate of mergers and acquisitions, it can be difficult for smaller publishing houses and scientific societies to maintain their identities. This session aimed to offer viable alternatives to mergers and acquisitions, as well as to assuage the fears associated with them.

To start off the presentation, the moderator, Angela Cochran of the American Society of Civil Engineers, said a few words. She described a variety of drawbacks, both perceived and real, that come with mergers, such as a loss of influence with vendors, a shift in the size of the pond, a change in the company's mission, and the idea of paying competitors. All of these are tough pills to swallow, but Cochran also took care to describe some of the positive elements that come from mergers. For instance, a merger makes it easier for a smaller company to join a group with a more consistent roadmap, and a bigger fish can now push development in the field. Although mergers are difficult, Cochran explained, they can be used as collaborative efforts to improve scholarly publishing as a whole. Cochran also gave a brief overview of the options available to companies that don't want to consider a merger, such as moving to another commercial platform, partnering with other societies, and exploring open-source tools.

The first speaker was Michael Di Natale from BioOne. He outlined the process that BioOne took in their recent partnership with SPIE, and the lessons that both companies learned along the way.

Originally, BioOne wasn't looking for a partnership, but merely for a cheaper platform vendor so they could reduce their overhead costs. When none of the options available seemed particularly appealing, they decided to turn to a completely untested option: a partnership with

SPIE and the platform that SPIE had built for their own content.

As noncompetitive, mission-aligned nonprofits, both companies offered something of value to the other—BioOne could share the overhead costs of the platform SPIE had already begun building for themselves, and SPIE could benefit from BioOne's experience and knowledge of different portions of the scholarly communications industry. After much discussion, the companies decided to move forward with the partnership.

Di Natale describe several lessons that he had taken from his time working on the partnership. Firstly, he explained that when companies don't like their options, they need to be willing to create new options. Secondly, he recommended that companies be able to mitigate risk and manage their expectations. Lastly, he stated the fact that no transition will be seamless, and companies should be prepared for bumps along the road.

Di Natale closed his presentation by emphasizing the importance of collaboration and building relationships in the partnership process with SPIE. Through collaboration, more opportunities will inevitably open up.

After Di Natale's presentation, Alison O'Connell gave a presentation about the Collaborative Knowledge Foundation (CoKo), which is part of an open-source community for building editing and publishing tools called PubSweet. O'Connell explained how PubSweet can provide a good alternative to large-scale proprietary tools. The shared open infrastructure of PubSweet means that companies can collaborate and offer their created tools to anyone on the platform, while still staying competitive: while the basic framework for programs built with PubSweet is the same, at the interface level, applications can vary wildly. There is a large advantage to using the same open-source infrastructure and then differentiating at the brand level.

O'Connell listed examples of programs built with PubSweet that may be of use to a wide audience, including Libero Reviewer, a submission and peer-review system developed by eLife; the Europe PMC Plus platform, a manuscript submission and preview platform; Editoria, a CoKo-built program designed for typesetting books online; and a variety of others.

O'Connell concluded her presentation by stating that the work of developing new, better tools for publishing

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Michael Di Natale and Allison O'Connell.

companies goes faster when an open-source community works together and shares its developments openly.

When O'Connell's presentation ended, the floor was opened up for audience members to ask questions. Several people wanted to know how BioOne will proceed if SPIE decides to add more publishers to its platform. Michael Di Natale explained that there is language in BioOne's contract with SPIE that accounts for that possibility, and recommended that other companies in such partnerships take the same precautions.

There was also discussion about the difficulties of getting a small publisher or company to jump on board with an open-source community, especially when there is so much

risk involved compared to working with a well-established vendor. Alison O'Connell emphasized that PubSweet is more about a framework and methodology for building tools, not necessarily a be-all end-all, and that its usefulness is dependent on how much work an organization is willing to put in.

There are plenty of options for companies who are looking for alternatives to mergers, some of which were explored in these presentations. The community-driven efforts of PubSweet and the home-grown partnership between BioOne and SPIE will continue to serve as good examples of how to collaborate in the world of scholarly publishing.

Update on the Manuscript Exchange Common Approach (MECA) Initiative

MODERATOR:
Tony Alves

 Aries Systems
 North Andover, Massachusetts

Eric Hall

 Sr Product Manager
 HighWire Press
 Los Gatos, California

SPEAKERS:
Joel Plotkin

 CEO, eJournalPress
 Rockville, Maryland

Caroline Webber

 Sr Business Systems Analyst
 Aries Systems
 North Andover, Massachusetts

REPORTER:
Katie Murphy

Caroline Webber, Sr Business Systems Analyst, Aries Systems, spoke about real-world use cases for Manuscript Exchange Common Approach (MECA) on Aries' online submission and peer review tracking system, Editorial Manager. The common problem that this initiative is addressing is the need to have manuscripts transferred from one online submission system to another because of the growing interest within publishing organizations to keep research papers "in-house" while still using the different submission systems employed by publishers. In addition, there is a related issue that MECA addresses which is that authors and reviewers duplicate effort when a paper is rejected from one journal, and then submitted to a different journal. MECA also addresses the rise of preprint servers and the need to transfer papers between preprint servers and submission systems. The goal of MECA is to give journals a seamless process to transfer manuscripts between various systems with minimal requirements regarding what data is transferred. Webber also discussed how to package the communications in a .zip file with various xml files and source files, with the goal of identifying the sources and passing the information from one submission system to another for peer review.

Joel Plotkin, CEO of eJournal Press, discussed how MECA created a set of best practices out of what is already being done, i.e., files are already being used to transfer data across systems. "MECA is all about the technology, the nuts and bolts," he stated, and the goal is to see if this proof of concept will work. He also talked about use cases between publications on different platforms as well as on servers such

as presubmission tools, preprint servers, and subsystems such as eLife. According to Plotkin, lessons learned in creating MECA were that some publications and systems use different naming schemas for first and last name, and the need to ensure the transferred content is secure. He ended his presentation stating that "the trick is finding a standard that a group of heterogeneous systems can agree [on]." Plotkin also cautioned keeping in mind policies on General Data Protection Regulation (GDPR) which include that authors and reviewers reserve the right to transfer to other publications, preprint servers, and services, and that consent must be given when names are included.

Eric Hall, Sr Product Manager, HighWire Press, discussed how best practices are still undefined, and that is why MECA is needed. "MECA is the framework and what goes into the framework is entirely up to the publishers. Every journal has different policies and different needs. MECA is not a one-way trip," he stated. Things can transfer between journals and come back again, but "the hardest thing is getting the policy right, sit down with the affiliated organizations and talk candidly about the kind of data you are comfortable receiving and sending, what is the end goal and how much do you want the author to have to do." Hall continued his presentation on the necessity of content management systems knowing what is important for each party. Regarding preprint servers, he pointed out that bioRxiv receives thousands of submissions monthly and editors want to find a way to move papers from preprint servers to journal submission systems. He continued, if a manuscript is rejected with the option to post a preprint while an author submits it to another journal for consideration, this would be scenario made possible by MECA. Another point he raised is how more journals are doing open peer-review, sharing review commentary alongside the published article, and he believes we will see more of this going forward. The Company of Biologists, for example, sends all peer-review content to Nova Techset and it comes back through MECA. Hall cautions to "think very carefully how you would want to display peer review alongside the published article." Do you show all reviews at each version? Are you going to share reviewer names and the back and forth with authors and reviewers/editors and reviewers/authors, etc.?

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Questions Raised:

- Do you tell the reviewer you are going to share your review? According to Hall and Plotkin, yes, you have to obtain their consent. Plotkin followed up that technology-wise you have to be concrete about what you decide to share. Webber indicated that there are questions built in—and believes they are modifiable—that allows reviewers to answer if they want to have their review shared, if they are okay with their name being shared, etc. The framework is in place, but we are also learning from the publishers themselves.
- What are the timelines to the next milestones? The NISO approval and making it viable on the systems? The NISO group is working through the specifics of implementation and, if everything goes well and all 15 organizations involved agree, will send it to NISO for a vote as recommended practice, summer 2019. According to Alves, the “recipe” is ready for use.
- What is the cost of using MECA? There is no cost to use MECA, but there may be a cost to configure a system. With a Creative Commons CC BY license, anyone can use it with attribution.

Mentoring of Journal Authors and Reviewers

MODERATOR:
Emilie Gunn

 Managing Editor
 ASCO
 Alexandria, Virginia

Justin Schreiber

 Assistant Professor of Psychiatry
 and Pediatrics
 Children's Hospital of Pittsburgh
 Pittsburgh, Pennsylvania

SPEAKERS:
Ashley Ketelhut

 Managing Editor
 ASCO
 Alexandria, Virginia

REPORTER:
Liz Haberkorn

 American Pharmacists
 Association
 Washington, DC

This insightful discussion provided opinions and advice on the benefits and challenges of the mentor–mentee relationship between editors and journal authors or reviewers. The experienced speakers Ashley Ketelhut and Justin Schreiber, and moderator Emilie Gunn presented and examined many challenges and provided some solutions.

Perhaps the best way to tackle the mentorship of authors and reviewers is by relying on your previous experiences with managing people. As a former teacher, Gunn pointed out that “learning to manage middle schoolers has helped with the management of adults.” Good teachers must know students well and how to motivate them on an individual level. In the same way, a mentor must become familiar with the mentee’s goals, but unlike a teacher, the mentor should not decide the goals for the mentee. A mentor must know the mentee’s strengths and weaknesses and should “prompt action” and thought within the mentee. Mentees usually arrive with a working knowledge of their own that can be developed and, under proper mentorship, will flourish.

Mentorship is a two-way street. The mentor has work to do, too; they must figure out what questions to ask and what to provide by way of encouragement. They must assess what it is the mentee needs from the mentoring relationship in order for it to be as useful as possible. They also have to be able to dedicate the time necessary to invest in and guide the mentee through the good and the bad.

It is up to the mentor to prompt action and get the mentee to think about things in a different way. For instance, the mentor must take into account what it is the mentee is seeking. Is it guidance on managing a difficult teammate? Do they need to develop a particular skill, or a general ability that isn’t teachable in the classroom or is only learned through experience? Is someone entering a new

career path and just needs to be orientated to procedures, jargon, and roles?

Likewise, there are criteria for someone to meet in order to fit the role of mentee: They need to be teachable; they must identify something that they have to learn; and, most importantly, they must be open to feedback and advice. Specific goals must be established for the mentor–mentee relationship to be measurable in success.

The two managing editors from ASCO shared their experiences with mentoring reviewers for a new journal launched by the society that was not receiving quality reviews. The new journal needed to expand its reviewer pool in order to reduce reviewer fatigue and broaden scope. They looked to younger professionals who had just started out in their careers. Although faced with promising and eager candidates, many of the reviewers lacked experience or reliability. The solution was to create a Journal Editorial Fellowship where five fellows are selected each year and paired with associate editors who they work with one-on-one for a period of six months. Under this fellowship, the fellow is given at least one paper per month to review, on which they are given feedback. The idea is for the fellow to become comfortable with reviewing someone else’s work. The fellowship also requires the completion of two free online courses through ASCO’s community, as well as monthly reading assignments. At the end of the fellowship, the fellows each must complete a final project to demonstrate what they learned.

Assistant Professor Justin Schreiber, and mentee in the McDermott Editor in Residence program with the *Journal of the American Academy of Child and Adolescent Psychiatry*, can vouch for the success of mentoring those young professionals who want to become better writers and stronger editors. His experience has been that those who are interested in becoming better writers will go on to become mentors themselves, and to write articles for journals or give presentations at universities on the many aspects of publishing and advantages of being involved in the industry.

It’s important to reward, or acknowledge, the success and growth of the mentee. Certificates of completion and acknowledgment are appreciated and included alongside CVs and applications. But mentorship does not end with the presentation of a certificate—it coincides with life-long learning, and eventually, the mentee will become a mentor to someone else.

Getting Out of the Reporting Rut

MODERATOR:

Julie Vo

Senior Editorial Coordinator
American Society for Clinical
Pharmacology & Therapeutics
Alexandria, Virginia

SPEAKERS:

Christine Melchione Adams

Publications Coordinator
American Society of Clinical
Oncology (ASCO)
Alexandria, Virginia

Jason Roberts

Senior Partner
Origin Editorial
Ottawa, Ontario, Canada

Morgan Sorenson

Managing Editor
*Neurology: Neuroimmunology &
Neuroinflammation*
American Academy of Neurology
Minneapolis, Minnesota

REPORTER:

Meghan McDevitt

Managing Editor
The Journal of Pediatrics
Cincinnati Children's Hospital
Medical Center
Cincinnati, Ohio

Editorial offices are often asked to provide reports, perhaps annually for an editorial board meeting or ad hoc when requested by an editor. But are these reports being used effectively to influence better editorial decisions? This practical session on editorial office reporting provided attendees with an overview of reporting practices, pitfalls and how to avoid them, and case-based examples.

Jason Roberts, Senior Partner at Origin Editorial, began by discussing the many reasons reports are run and used, such as to monitor progress, set benchmarks, or to anticipate or plan for future developments. However, running a report, obtaining the data required, and analyzing it is not always simple. Many problems exist in editorial office reporting including placing too much meaning on too few data points, overusing a solitary average (rather than a mean and range), and ignoring confounders when interpreting the data. Additionally, a lack of industry standards makes it impossible to compare data across journals. Many editorial offices also experience a lack of continuity between the reports run year-to-year, and thus have no historical context for the data they're trying to interpret. Roberts recommended making sure that the report methodology is recorded in detail so that it can be repeated in the future. This ensures that the same information is being compared each time and provides continuity.

It is also important to make sure that data are presented clearly and that the correct type of visual representation of the data is used. Visual presentation of the data can help

simplify complex messages. For instance, a graphic such as a box plot (alternatively a box and whisker plot) can show the spread of data around a median much more clearly than a number such as a mean with standard deviation or median with the interquartile range (especially for those of us that find statistics challenging). Sometimes the correct chart can reveal patterns otherwise hidden in a table. A scatterplot might usefully reveal, for example, which editors are hitting targets for manuscripts handled and associated rejection rates.

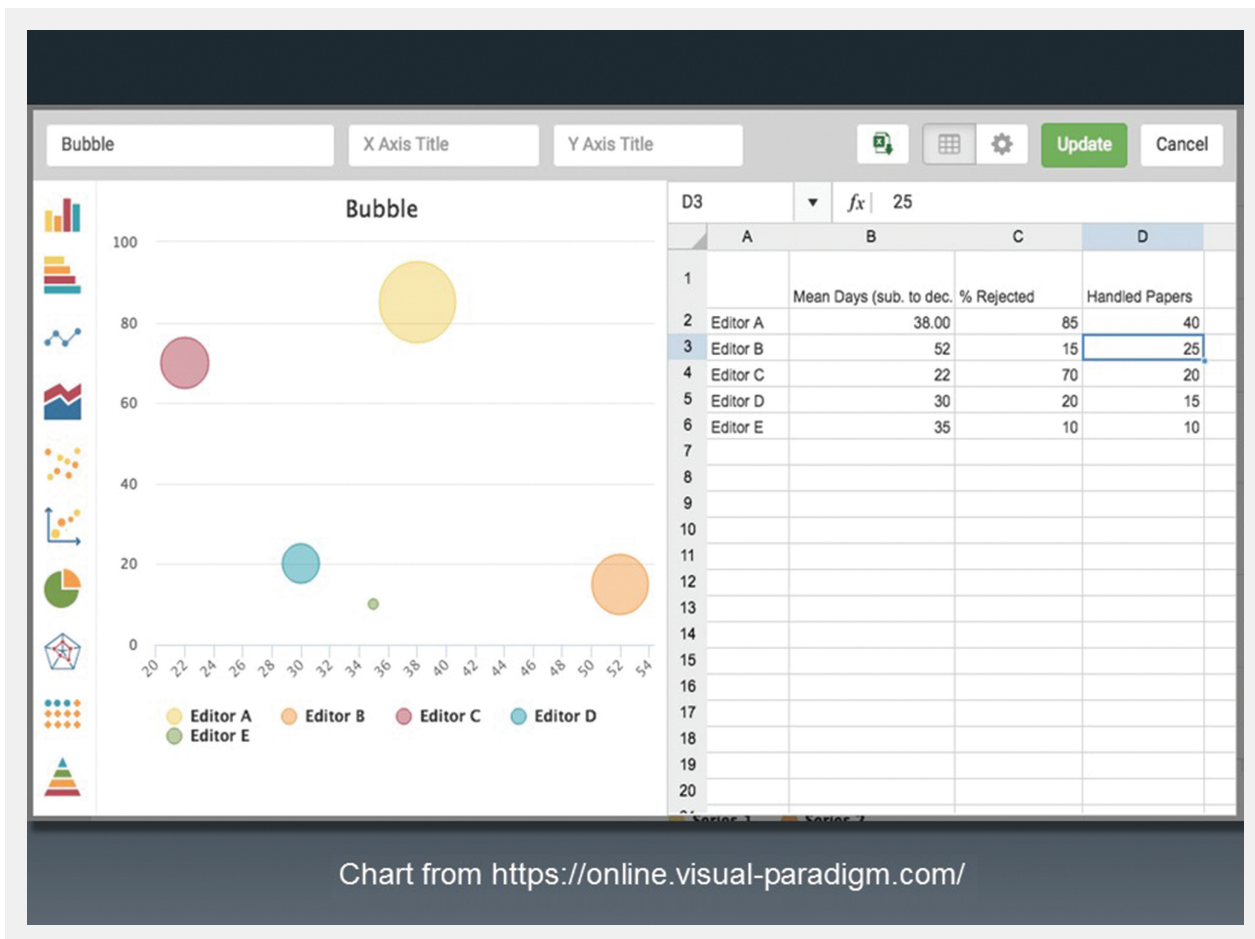
Managing Editor Morgan Sorenson explained how at *Neurology*, a rejected article tracker was developed to examine the fate of rejected manuscripts submitted to the journal. Because 75% of submissions are rejected, and this rate had been increasing, they wanted to learn if these rejected manuscripts eventually are published in other journals, especially in ones of which they were not aware. Data from the rejected article tracker allowed them to examine which topics were being rejected and then eventually accepted (and cited) elsewhere, which provided feedback for the editors who might wonder if they were rejecting good papers. Additionally, they can use the report to better evaluate papers that could be resubmitted to their spoke journal.

Sorenson mentioned several caveats about this report. Even if a "good" paper was rejected, the field may be saturated with specialty journals in that topic area. The rejected papers might not have been within the scope of the journal, and thus were not a good fit. Additionally, not all rejected papers could be found through the report for a variety of reasons, such as maybe the paper was never published or the article's title changed drastically.

Christine Melchione Adams, Publications Coordinator at the American Society of Clinical Oncology (ASCO), presented attendees with a challenge most journals encounter: How to ensure equal distribution of responsibilities among editorial board members? Although they were aware of the problem, as well as some of the causes, the team wanted to find a way to measure and track this issue in the hope of finding a "Goldilocks solution."

They developed the EBM Utilization Report to track editorial board members' activity in order to determine which board members were being underutilized as reviewers. For their journal, the goal was for each editorial board member to complete three reviews per year. However, associate editors were more likely to select those members who had

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served for a longer time on the board and new editorial board members were not gaining experience as reviewers.

Prior to the development of the report, Adams reported that 47% of editorial board members were being underutilized. Their goal was to decrease this by 10%. The report collected reviewer data from the editorial system and they were able to sort each editorial board member into one of three categories: underutilized (<3 reviews completed), on target (2–4 reviews completed), and overutilized (>4 reviews completed). By tracking this data and sharing it with the associate editors, they were able to decrease the number of editorial board members who were being underutilized

to 35%. Although they met their goal, Adams mentioned that one-third of their editorial board members are still being underutilized so more work is needed to continue to decrease disparities and create a balance among editorial board members' responsibilities.

This session was particularly useful to managing editors or other editorial office staff who run regular reports. Journals should strive to make better, informed policies and protocols based on actual data, rather than anecdotal observations, and editorial offices can use the information covered in this session to take practical next steps.

Preprint Submissions to Journals: What's Your Policy?

MODERATOR:**Helen Atkins**

Senior Manager, Journal & Product Support
American Chemical Society
Washington, DC

SPEAKERS:**Darla Henderson**

Publisher, Global Journals Development
Assistant Director, Open Access Programs
ACS Publications
Washington, DC

Allison Leung

Senior Editor, Social Science Journals
SAGE Publishing
Thousand Oaks, California

Laura Remis

Assistant Managing Editor, Science Advances
American Association for the Advancement of Science
Washington, DC

REPORTER:**Becky Rivard**

Associate Production Editor
American Mathematical Society
Providence, Rhode Island

Many authors—in both the sciences and humanities—are submitting to online preprint platforms. In fact, more people read these than the accepted publications, perhaps because they are available earlier or perhaps because they are open access. Some stakeholders embrace preprint servers, while others have reservations. In this talk, three scholarly publishing professionals spoke on the pros and cons of working with preprint systems, as well as the challenges involved in creating and updating policies around preprints and preprint submissions.

First, Darla Henderson of the American Chemical Society (ACS) talked about the chemistry community's need for a preprint system and how ACS worked with fellow societies Royal Society of Chemistry (RSC) and the Gesellschaft Deutscher Chemiker (GDCh) to launch, support, and develop the service. Preprints and accepted articles both have merits: disclosure and rapid dissemination in the former, and validation through peer review in the latter. In the end, the three societies decided to create a community preprint server as part of their core values of being community-driven. Their preprint server, ChemRxiv, also has a direct journal transfer option so that authors can then easily submit to any ACS, RSC, or GDCh journal, if they choose.

Next, Allison Leung talked about SAGE Publications' preprint server, Advance, and how one size does not fit all (since SAGE processes journals from different societies, of different sizes, and of different subject matters). Similar to ChemRxiv, SAGE's preprint server allows authors the option to easily submit to a journal after submitting a preprint. Some questions that remain include how to handle citations, whether it takes readers away from peer-reviewed journals, how to ensure that plagiarism-detection software does not flag preprints, and whether double-blind peer review is discredited by reviewers being able to see who wrote the preprint. Although there were different reactions from the editors that SAGE reached out to, most eventually came around to the idea. SAGE is now updating their guidelines and systems, refining their policies, and educating others to adapt to the introduction of Advance.

Finally, Laura Remis discussed American Association for the Advancement of Science's (AAAS's) policy on preprint servers, bioRxiv, and the arguments for and against preprints. Some of the common arguments for preprints include: it engages the scientific community, it shortens time-to-publication, it helps scientists obtain funding, and it fosters collaboration. Some arguments against preprints include: the fear of ideas being "scooped," the possibility of decreased quality, a decline in submissions to peer-reviewed journals, and issues with press releases on "new" information (which may have, in fact, already been disseminated online). Academics, funders, and journals are all (mostly) in agreement that preprints can serve the scientific community, but that peer-reviewed products still have value.

In a brief Q&A, someone brought up how comments on preprints can affect peer review. This can either foster positive communication or hinder the peer-review process, depending on how it is used. There was also some more discussion about plagiarism-detection software. Lots of questions still remain, but overall it appears that preprint servers will be a big part of the future of science publishing.

Creating and Implementing a Data Policy

MODERATOR:

Anne Coghill

Senior Manager, Peer Review
Services, Global Journals
Development
American Chemical Society
Washington, DC

SPEAKERS:

Michael Friedman

Acting Co-Director of
Publications and Journals
Production Manager
American Meteorological Society
Boston, Massachusetts

Kerry Kroffe

Director, Editorial Services
PLOS
San Francisco, California

Shelley Stall

Senior Director, Data Leadership
American Geophysical Union
Washington, DC

Alyson Weidmann

Managing Editor
American Chemical Society
Washington, DC

REPORTER:

Erin Landis

Vice President of Publications
American Gastroenterological
Association
Bethesda, Maryland

Given the burgeoning amount of data that exists in the scientific enterprise and in the world at large, many journals are now aware of the need to create a policy around the handling, archiving, and dissemination of data. However, the roadmap for creating such a policy remains unclear for many. In this session at the 2019 CSE annual meeting, four experts on the creation and implementation of data policies for journals shared their experience and advice for making the process less intimidating.

Shelley Stall, from the American Geophysical Union (AGU), explained that her organization has a specific position statement on data that expresses that documented, credited, and preserved data ultimately advances science. She also shared data from a survey conducted by the Belmont Forum that demonstrated the motivating factors for scientists to share their data, which include increasing the visibility and impact of their research and public benefit.

Stall's presentation largely focused on the FAIR Data Principles, which were developed by stakeholders from academia, industry, funders, and publishers who wanted to improve the infrastructure around the reuse of scholarly data. FAIR stands for making data Findable, Accessible, Interoperable, and Reusable. A full explanation of these principles can be found at <https://www.force11.org/group/fairgroup/fairprinciples>. AGU is a member of COPDESS, the Coalition for Publishing Data in the Earth and Space Sciences, as a means to enable the FAIR project. There

are over 100 signatories of COPDESS. COPDESS seeks commitments from researchers, publishers, and authors to the FAIR principles to help elevate the transparency and reproducibility of data.

Michael Friedman, from the American Meteorological Society (AMS), discussed his organization's experience with implementing the FAIR project (AMS is also a signatory of COPDESS). He explained that AMS took a more deliberate approach, given the smaller size of their community and the internal structure of their governance process. AMS is implementing the FAIR principles and taking advantage of the built-in flexibility because some aspects would have been more difficult than others to implement. The fact that the FAIR commitment statement is more aspirational than prescriptive has been an advantage. This approach allowed AMS to implement what was feasible on a schedule that works for them, while still agreeing and complying with the overall goals of the initiative. Coincidentally, AMS was amid revising their data policy at the time FAIR was launched; hence, FAIR informed the revisions they made to their policy.

Using FAIR as their guide, AMS drafted a revised data policy. After internal review, the policy was open for public comment. After reviewing the feedback, the final policy was approved by the AMS Board on Data Stewardship and received final approval by the AMS Council. Friedman noted that ultimately there were some differences between AMS's data policy and FAIR, but the overarching goals were aligned.

Kerry Kroffe, from PLOS, described his organization's experience with establishing a data policy. PLOS has been a proponent of data sharing since it was first launched in 2003. In their original data policy, PLOS required that authors share their data upon request, once the paper was published. In 2014, they strengthened their policy to require that all data is accessible and reusable at the time of publication. Additionally, authors must include a data availability statement in their manuscripts; since 2014, more than 115,000 published papers contain such statements.



Kroffe noted that PLOS faced several challenges implementing this stronger data policy, including the various norms of data sharing and tools among disciplines, a cultural shift toward data sharing being the norm versus the exception, and an increase in personnel resources among staff, the editorial boards, and reviewers. Also of importance, Kroffe emphasized, was the need to provide

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Upholding excellence at ACS Publications

Goals for ACS Data Guidelines:

- Promote transparency and clarity in data collection and analysis
- Ensure reproducibility of published results
- Provide guidance to authors for reporting methods, data, and statistics
- Align journals with funder requirements for data



Proprietary and Confidential
Chemical Society

American

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clear guidance around the data policy and to involve the scientific community.

Alyson Weidmann rounded out the session by sharing the American Chemical Society's (ACS) experience with creating a data policy. ACS's goals for developing such a policy were multifold, not the least of which was to ensure the reproducibility of published results. Weidmann shared a survey published in *Nature* where, of 1,500 scientists in biology and chemistry polled, over 80% could not reproduce reported results. To address concerns of reproducibility, ACS convened a taskforce that comprised Weidmann, editors-in-chiefs of three ACS journals, and other publishing staff.

The taskforce developed a policy that contained four primary tenets: 1) the proper use of statistical tests and explanation of methods; 2) the use of database identifiers for reagents and materials, and the deposition of new materials in repositories; 3) the reporting of sources for all reagents and validation where possible; and 4) the promotion of transparency and accuracy in data representation and visualization. ACS intends to expand their data policy to all 56 titles and develop guidelines for other core areas of chemistry, beyond biological data. They also hope to strike a balance with their scientific community by being informative and clear about the new standards without being too prescriptive.

The session concluded with a lively Q&A segment.

Plagiarism: Premeditated or Involuntary?

MODERATOR:

Kelly Hadsell

KWF Editorial
Philadelphia, Pennsylvania

SPEAKERS:

Nancy R Gough

BioSerendipity, LLC
Baltimore, Maryland

Kasey Hayes

AAAS/Science Advances
Washington, DC

REPORTER:

Alaina Wangsgaard

Western North American
Naturalist
Provo, Utah

Plagiarism has a simple enough definition in theory, but when actually put into practice in the field of scholarly publishing, its rules become much more nuanced. At the CSE 2019 meeting, the session “Plagiarism: Premeditated or Involuntary?” provided insight into this complicated issue, giving editors the tools to combat plagiarism in all its forms and authors the ability to avoid plagiarizing in the first place.

Nancy R Gough, a freelance editor who was formerly the Editor of Science Signaling, explained the nuances of plagiarism in the world of scholarly publishing. Not only is it important for authors not to use others’ work without citing it, but authors must also be careful not to use their own past papers without proper citation. Because the rights of a paper often transfer from author to publisher after publication, the author no longer holds the copyright or has granted an exclusive license to the publisher and must be aware of that fact when using his or her own work in any subsequent papers.

Gough outlined steps she took when encountering suspected plagiarism. When an editor suspects self-plagiarism, or plagiarism of any kind, she recommended the following steps. First, a complete copy of the suspected article should be compared against the previously published work, with special attention to the overall organization of the articles, the organization of individual sections, and the order and number of references in the paper. Once these elements are analyzed and plagiarism has been detected, the editor must flag the issues in the manuscript tracking software. Whether the plagiarism is egregious enough to reject the paper outright or it is simply an indication of a misunderstanding is up to the editor, but either way, full documentation of the investigation of the plagiarism is crucial. Correspondence between editor and author, along with reports on the plagiarized percentage of the work, must be documented for later reference.



Gough also described some warning flags that could indicate plagiarism, such as mismatched writing styles; introduction of new names or abbreviations for terms that are written out elsewhere in the document; statements with citations that do not have appropriate context or interpretation; and an inability of authors to rephrase when requested to do so. In addition to this list of warning flags, Gough also highlighted a more insidious problem: sometimes authors lift segments from abstracts that are freely available without reading the full text. While this may not be plagiarism if it is cited, it could indicate a deeper problem with the article, especially in the context of a review article.

After Gough’s presentation, Kasey Hayes of AAAS/Science Advances took the floor. His presentation spoke to authors and how they can avoid plagiarizing their own work and the work of others. Hayes highlights a particular problem in self-plagiarism called “salami slicing,” where authors take “slices” or small sections of larger works and try to publish them in a variety of journals in order to get more publications from a

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single study. At AAAS, Hayes explained, *Science Advances* prefers to publish a whole study rather than parts of one, so this practice of salami slicing is looked down on.

Hayes went on to describe the different levels at which an author can plagiarize—at the syntax level, at the word level, and at the meaning level. Some ideas are common knowledge (such as the fact that plants are fertilized by pollen) and cannot be copyrighted at the meaning level, but the specific words used to explain them may be subject to copyright depending on the context. Therefore, authors must carefully check any information they take from another source, and when in doubt, cite it or use a direct quote.

At the conclusion of these presentations, audience members engaged in a lively discussion on the nuances of plagiarism and the abilities of plagiarism-detecting software. One question that was raised pertained to the percentage of a document that would trigger plagiarism-detection software: What percent of similarity in a paper will issue a flag when using plagiarism-detecting software? (The answer is that different publishers and journals use different thresholds to trigger plagiarism flags. According to Kasey Hayes, the percentage for *Science Advances* is 25%, and that percentage excludes quotes, bibliography, abstract, and materials and methods.)

Several people expressed concern that many papers are plagiarized because many scientists and experts who write scholarly papers are not trained to paraphrase or even to write very well—because they cannot paraphrase and cite, they plagiarize and cite. There was also discussion of what should constitute self-plagiarism and what should not—both presenters and many attendees agreed that the methods section is often replicated, so with proper citation, a heavily lifted methods section is not cause for concern. On the other hand, more unique sections like the abstract and discussion should be carefully searched for these issues.

Lastly, audience members discussed the timing of running papers through plagiarism-detecting software. Since it can be expensive to use, many journals do not run papers until after they have been accepted and have gone through revisions. There is still variability, however, in the ways that many journals approach the use of plagiarism-detecting software. Although plagiarism-detecting software is an undeniably valuable tool, editorial efforts to rectify these issues are also of key importance. Avoiding plagiarism in all forms improves the world of scholarly publishing, one properly-cited paper at a time.

Advanced Publication Management Short Course

MODERATOR:

Amy McPherson

Director of Publications
Botanical Society of America
St Louis, Missouri

Lindsay MacMurray

Managing Editor
Society for Healthcare
Epidemiology of America
Arlington, Virginia

SPEAKERS:

Rob Bernstein

Senior Publisher, Americas
IOP Publishing
Washington, DC

Julie Steffen

Director of Publishing
American Astronomical Society
Washington, DC

Angela Cochran

Managing Director and Publisher
American Society of Civil
Engineers
Reston, Virginia

REPORTER:

Jennifer Chapman

Managing Editor
American Society of Civil
Engineers
Reston, Virginia

Jennifer Deyton

Senior Partner
J&J Editorial, LLC
Cary, North Carolina

Lindsay MacMurray, Managing Editor for the Society for Healthcare Epidemiology of America, started the day off with leading organizational change. Change is constant in the industry and being able to adapt to these changes plays a role in management. A key to remember that Lindsay said, “we represent a significant revenue stream for our societies and we represent the field for our members, so changes to our publications can significantly impact the field in which publish.”

Two models that can aid in being effective in your own organization are Lewin’s Three Phase Model and Kotter’s 8 Step Process.

Lewin’s Three Phase Model:

1. Unfreeze: preparing the desired change
2. Change: implementing the desired change
3. Refreeze: solidifying the desired change

Kotter’s 8 Step Process:

1. Establish a sense of urgency
2. Create a guiding coalition
3. Develop a change vision
4. Communicate the vision for buy-in

5. Empower broad-based action
6. Generate short-term wins
7. Never let up
8. Incorporate changes into the culture

Angela Cochran, Managing Director and Publisher, American Society of Civil Engineers, spoke about the story your data provides. Where does the data come from, and how do you provide this in the best manner to the end users? Your editorial system is a key component that can provide tons of information. Another source is the bibliographic data, online platforms, citation databases, and third-party analytics tools such as Impact Vizor. Providing data that tells the whole story, and not just bits and pieces, along with being able to pull different pieces from multiple sources guides us in being able to accomplish the end goal.

Cochrane indicated that one of the biggest game changers for her organization was pulling five years of information. This provides a wide base to the journals and how they compare to others. It lets us see where we are, where we have been, and how we are either growing or declining in important areas. Never disregard the competitive factor.

Not only pulling the right information but being able to place that information into the right hands makes a difference. Editors, associate editors, board members, publishers, authors, and reviewers all may have different questions, and being able to provide the appropriate data is key. Remember though, the more data you provide the more they may want. Make sure the data is valid and key for them to build on.

Document changes to your process and be able to explain what happens and why. Be consistent when providing data and where it comes from. Using this data to affect change is key.

Jennifer Deyton, J&J Editorial, spoke on peer review and its process. She handles a variety of different review processes which gives her a bird’s eye view of how things are changing and moving and the different technologies that are coming forth. She reviewed the different models, systems, and workflows that are relevant.

Before we move into those, what is peer review? Per the CSE White Paper on Publication Ethics,¹ Peer review is the principal mechanism by which the quality of research is judged.

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Different types of review:

- Blind review: authors do not know the reviewers, but the reviewers know the authors
- Double blind review: both authors and reviewers do not know each other
- Open peer review: authors are known to the reviewers and reviewers are known to the authors and other reviewers

Review process in-house:

- Review your journal workflow and make sure it's the best fit for your derived outcome.
- Have a detailed protocol for your editorial staff. This will help when you have turnover, and new staff is added.
- When you're just beginning, a standard workflow gets you off your feet and towards setting goals. Before moving into a more complex workflow ask what the benefits are; does it provide increased profitability for your overall production?
- Optimize your workflow to hit key elements regarding data, authors, reviewers, and editors along with the end goal.

Julie Steffen, Director of Publishing for American Astronomical Society, spoke on the collaboration outside the boundaries of our jobs and how this can benefit your journal. Do outreach and provide marketing to promote your journals and gain a wider audience. Some of the different collaboration are:

- ORCID: provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submissions, supports automated

linkages between you and your professional activities, ensuring that your work is recognized.²

- Crossref: makes research outputs easy to find, cite, link, and assess.³
- CHORUS: leverages existing infrastructure to ensure the output flowing from funded research is easily a permanently discoverable, accessible and verifiable by anyone in the world.⁴

Rob Bernstein, Senior Publisher, Americas, at IOP, spoke on customer service, customer focus, and customers experiences. Getting to know your customers by studying their actions and reactions, including the demographics of the customers, to the programs you offer can increase your ability to deliver on your mission.

Focusing on the customers and getting feedback with customer surveys and using the data in ways to gain insight will enhance the user's quality of time. Make it easy for the customer to be able to find specific items directed to your services. When replying to a customer's complaint or question write in simple terms. Do not use jargon that is not understandable or overcrowd your words. Apologize to the customer and keep the conversation open at the end.

Ways to stay ahead of complaints:

- Answer in a timely manner.
- Be easily accessible either by phone or email.
- Tack the issues to decrease them in the future.

References and Links

1. <https://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-on-publication-ethics/2-3-reviewer-roles-and-responsibilities>
2. <https://orcid.org/>
3. <https://www.crossref.org/>
4. <https://chorusaccess.org/>

There are about 34,550 active scholarly peer-reviewed journals, collectively publishing about 2.5 million articles a year.

(The STM Report, Fourth Edition)

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