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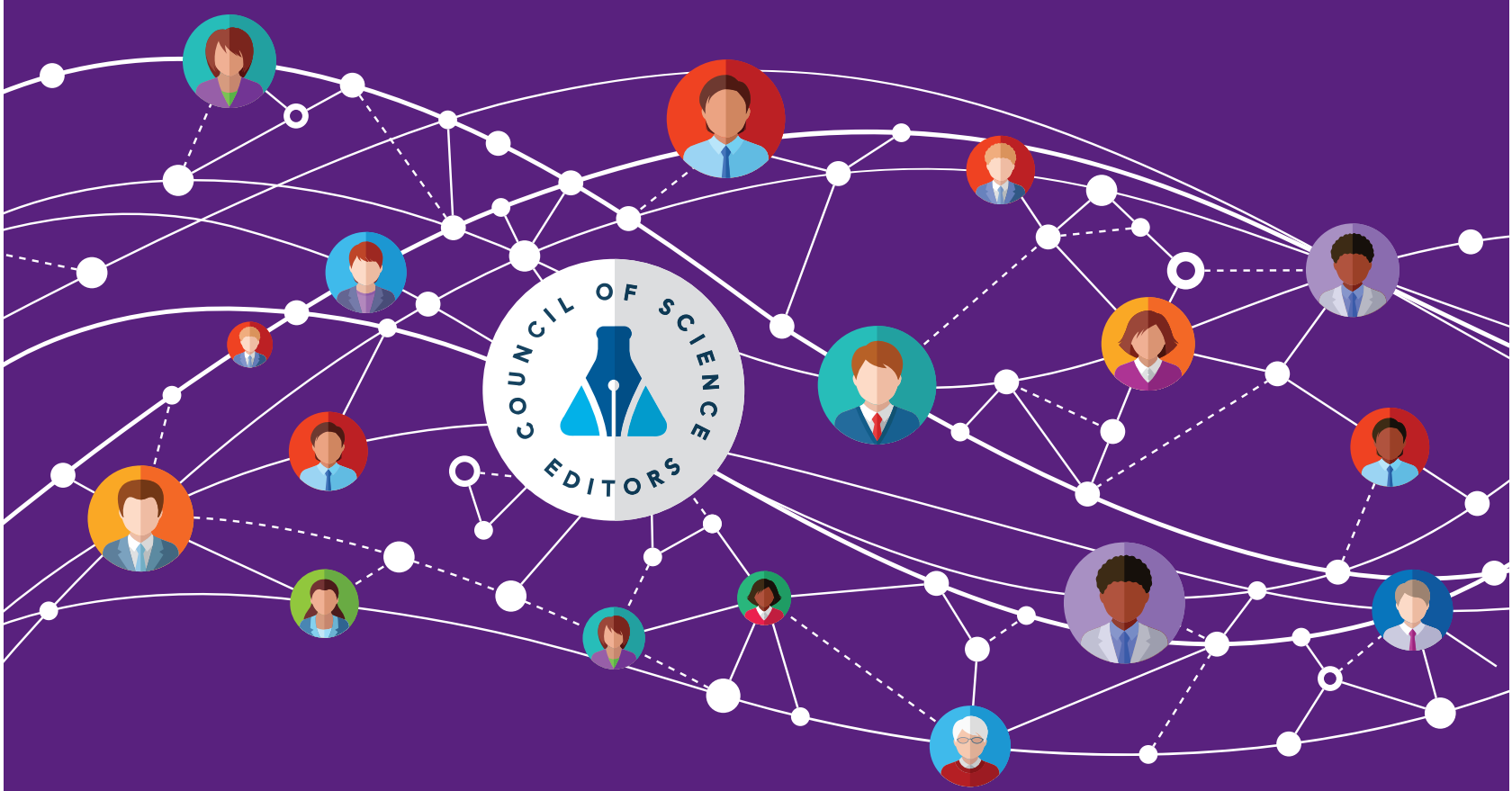

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ANNUAL MEETING REPORTS

Repair Work by Jonathan Schultz

When a blood vessel is torn, various cells converge on the wounded area, and after the bleeding has been stopped, these cells create collagen to provide a scaffolding upon which the healing process can build. That scaffolding is essential as it provides protection and guidance for the cells that heal the wound. Similarly, as we work to repair and improve scientific editing and publishing from damage caused by the pandemic, social injustice, or simple growing pains, we need the strong scaffolding of the information and insights provided by colleagues, such as in the articles in this issue of *Science Editor*.

The full version of this Viewpoint is available online at https://www.csescienceeditor.org/article/repair-work

On the cover: Red blood cells rush by a blood vessel tear starting to heal as platelets and collagen form a clot. Credit: Nicolle R. Fuller (Courtesy: National Science Foundation)

Sciety and the Rise of the Overlay Service

Hannah Drury

Recent global events have given rise to explosive growth in preprint deposition. With the subsequent response from volunteers willing to evaluate the increased volume and with software development to connect the pipeline, is there a realistic way forward for a "publish first" model of publication?

Preprinting in the Biomedical and Life Sciences

Preprinting in general is not a new concept. Briefly, it entails an author or authors depositing an early version of their scientific manuscript to a public server as soon as they deem it ready, thereby disseminating the results to the widest possible audience earlier than would often be achievable, for example, by waiting for publication in a journal.

There are many well documented advantages to preprinting for both the authors and readers of scientific publications.[1] Authors retain control over when and where their manuscript is available, along with any priority claim to the reported results, while readers are rewarded with free and immediate access to the latest developments in their field. Furthermore, posting a preprint ahead of journal submission has been shown to increase the number of subsequent citations.[2]

Indeed, the notion of preprinting as a practice is gathering momentum, even within the biomedical and life science fields for which it is a relatively recent phenomenon. It will perhaps be news to no one that in recent years the number of biomedical preprints posted has steadily risen to finally reach a peak in response to the threat from COVID-19 (Figure 1).

While the preprint format arguably represents a major shift in the narrative of scientific publication, it is not without criticism. Most notably, preprints are yet to undergo the cross-examination levelled at those manuscripts published in journals; the virtues of which it is beyond the scope of this article to scrutinize. Detractors have argued that preprints not only dilute the scientific record, but also contribute to the spread of misinformation amongst the public. Above all, most preprints lack the value afforded by the process of peer review itself, whereby experts in one's field offer feedback and recommendations for improvement.

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Preprint Evaluation

If preprints are truly to be accepted as research artifacts by the scientific community and beyond, then they must be subject to the same scrutiny: not to determine if they are suitable for publication in a particular journal, but if their conclusions are supported robustly within the context of the manuscript itself.

To address this issue, several initiatives have begun to openly evaluate preprints, making their opinions publicly available. The advantage of reviewing already published work via a so-called "overlay journal" or other "overlay review service" in this way is that there is no need for the opaque editorial selection that characterizes traditional journal publication. This can foster more constructive reviews that are focused on the improvement of the science within the context of the article itself, in turn serving the interests of both authors and readers alike.

Open evaluations also mean readers can gain more context around the articles they are interested in, not only increasing their understanding but helping to validate and shape their opinions. Given that these readers will in turn be expected to contribute to the community as peer reviewers themselves, such transparency would also seem to offer a valuable learning tool, and this has borne out in several user interviews undertaken with researchers who are early in their scientific careers.

The format that these open evaluations take is as varied as the initiatives themselves, hence why the umbrella term "evaluation" itself is more appropriate than "review". Some efforts, it is true, are reminiscent of the journal process and produce multipart reviews from multiple experts overseen by a handling editor. Others are briefer; their output perhaps comprising answers to standardized questions about the manuscript's strengths and weaknesses. Still others take the form of reports generated from results produced by automated tools. Such diversification represented by different models is encouraging because it implies a spirit of experimentation, where popular models attract a greater readership or lead to a greater effect, and less popular options are forced to adapt to better serve the scientific community as a whole.

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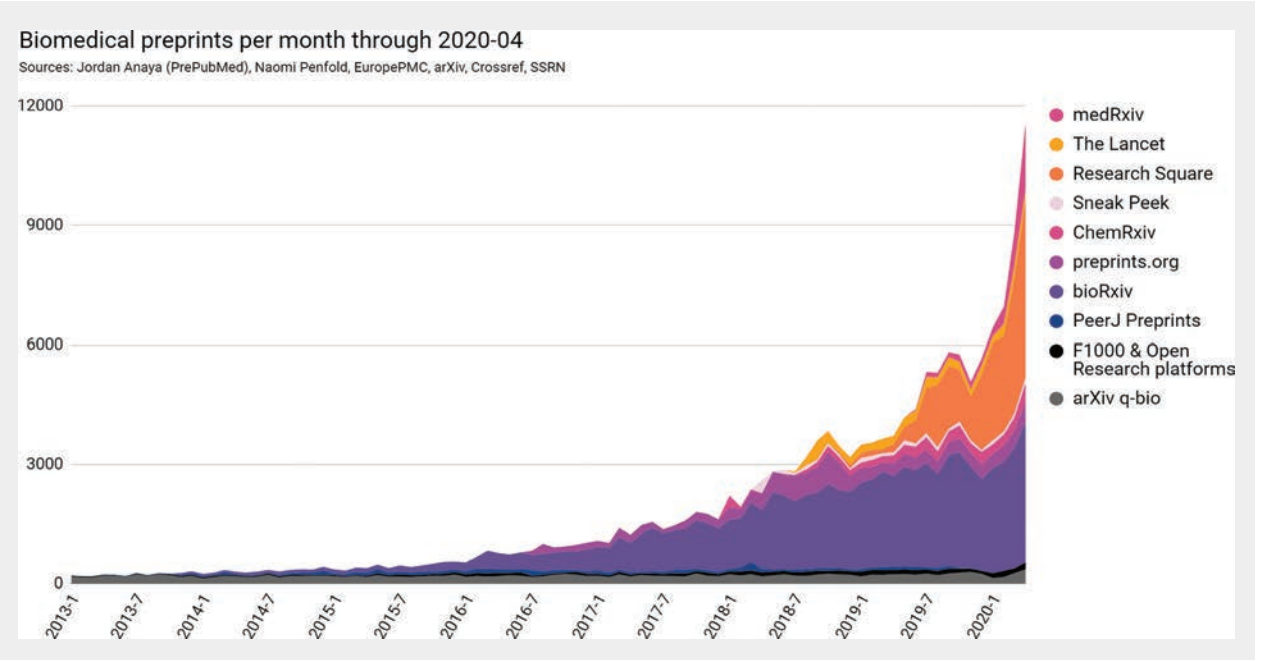

Figure 1. The growth of life science preprint deposition over time.[3]

One side effect of such diversification is a level of sporadic distribution. The unprecedented nature of these overlay activities means that there is no agreement on a suitable technical infrastructure to support them, so initiatives have been forced to either build their own or use tools that were not intended for such purposes. Furthermore, the evaluations themselves are scattered across the internet, often in public repositories or on individual websites, divorced from the preprints themselves as well as the full overlay service spectrum. While this doubtless allows each initiative to provide suitable context and transparent information about their processes to garner trust from their readers, those same readers struggle to find the evaluations in the first place.

Sciety as a Solution

Sciety emerged as a solution to the problems posed by the "publish first" model of scientific publication. It is a freely available online application that enables researchers, policy makers, funders, and other stakeholders to search for preprints and discover and share the kind of additional information that may have once been limited to journal publications. This information is presented in the form of an ever-evolving activity feed associated with each preprint (Figure 2), challenging the notion that the output of research is ever truly "finished". Activities currently include evaluations and version history but will be extended in line with Sciety's growing functionality to include richer information about the preprint's history.

Our vision for Sciety is for it to become the primary tool for navigating the growing preprint landscape. We aim to aggregate the outputs of these diverse services and make them more discoverable, increasing their reach while providing researchers with crucial trust indicators that help them decide in which preprints to invest their limited reading time. In this way, we question the traditional definition of "overlay" as an indicator of secondary tier review, and you will not see this term while navigating around the website.

Because the article is publicly available, there is no limit to the number of activities its feed may accumulate, or indeed the number of groups contributing evaluations. In this way, it is possible for a single preprint to attract multiple, diverse opinions that work together to inform a reader's overall interpretation. When interleaved with notifications of subsequent version updates, and even journal publication events, the feed becomes a living document of a preprint and its evolution.

Sciety Groups

The entities providing evaluations on Sciety are known as groups. We found this term to be the least overloaded with existing expectations, which has allowed us to be completely agnostic with regards to the processes each group follows and the outputs they produce.

Each group we partner with has its own homepage on Sciety, and we work with representatives from the group to

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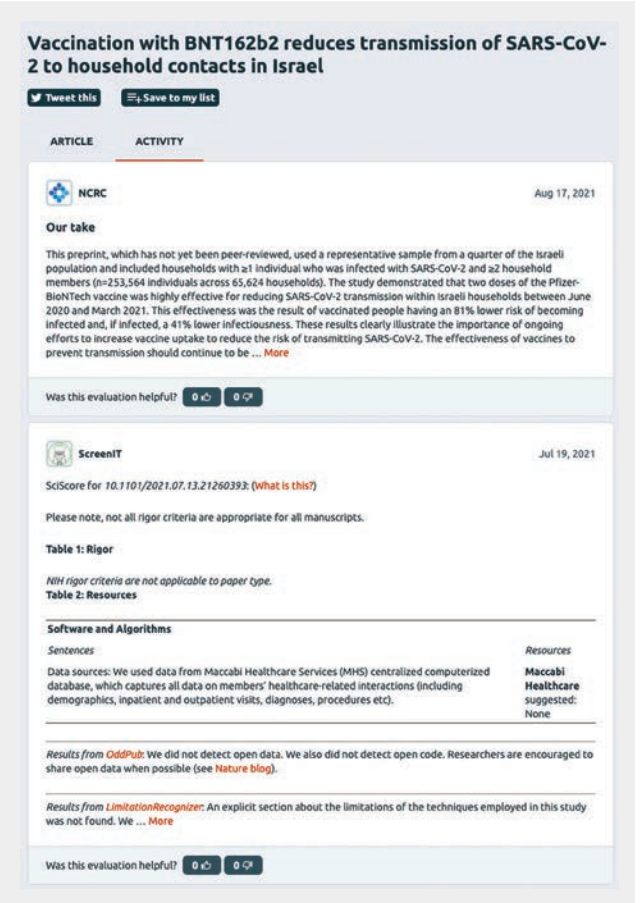

Figure 2. A feed of evaluation activity for a preprint on Sciety.

ensure interested readers are provided with a rich summary, an explanation about its review model, and the people involved. This transparency should foster trust in the group's evaluation activities.

The Novel Coronavirus Research Compendium (NCRC),[4] an initiative that provided a rapid response to the rise in COVID-19-related literature, is one of the more recent groups to join Sciety. They currently maintain their own website to which their evaluations are published, and we use the same pipeline to display the evaluations in Sciety activity feeds alongside any other information we have relating to that preprint. An evaluation from the NCRC takes the form of answers to standardized questions related to the study, and this model is laid out on the group's Sciety homepage (Figure 3).

Since partnering with our first group last year, we have begun ingesting evaluations from 14 different groups of experts, bringing our total corpus to approximately 18,500 evaluations of over 14,000 preprints at the time of writing.

Curation

Beyond evaluation, journal publication provides researchers with an additional level of curation that helps them keep track of particularly important developments in their field. We feel it is important that Sciety supports the same intention to collect different preprints together based on a shared context or relationship, however that may be defined by the curator.

In speaking to researchers, we identified two distinct use cases for curation activity. The first we might call "personal curation," and it involves saving or bookmarking particular preprints for easy future reference. We anticipate supporting this form of curation by extending Sciety's current functionality, a single default list per user that may be added to one preprint at a time, to allow for dynamic organization across multiple lists with customizable titles and descriptions to provide additional context.

The second use case requires the same level of discovery and subsequent organization, but with the purpose of informing the wider community. Such "social curation" may require Sciety to help users to achieve additional goals such as sharing via a range of networks or media, or the ability to follow others' curated lists in order to be notified when new preprints are added. Collaboration is another important aspect of this form of curation, and we expect multiple experts will eventually wish to contribute to a single list. This level of shared responsibility is likely to increase the collection's longevity and persistent relevance for followers. In the future, there may well be additional scope to support computer-assisted curation, enabling a curator to add preprints from a list of suggestions based on titles already known.

What's Next?

Sciety can currently only be used to search for preprints deposited in bioRxiv or medRxiv, but we plan to surface content from other preprint servers in the future. Similarly, we continue to build upon the number of groups we work with, adding to the diversity of opinions within the network. We remain deliberately agnostic with regard to the review model and subsequent output each group employs and produces, meaning Sciety poses no barrier to entry besides a commitment to transparency.

As the application continues to evolve, we will bolster our outreach efforts to help build a community of researchers, policy makers, and funders who share the same passion for a publish-first model of scholarly communication. Ultimately, Sciety's success will depend on behavioral and cultural changes that can only ever be supported, rather than driven, by software development.

The Future of Preprint Evaluation

It seems that recent global events have worked to shift the perception of preprints in the research community's collective consciousness. Now that we have seen what is possible ahead of, and even instead of, journal publication, it is not certain that we can return to that previous state of low-level tolerance. Preprints are becoming first class

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Figure 3. The Novel Coronavirus Research Compendium's (NCRC) group page summarizing the group's process and recent activities.

citizens of scientific output, particularly when considered alongside the scrutiny of so many overlay services, and I predict that the trend will only continue to flourish.

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DocMaps Helps Tell a Story

Tony Alves

No research article exists in a vacuum. There are no scientific texts in modern science that do not reference other works, and generally those references are meant to support the authors' assertions. References are a well-understood way to evaluate a piece of research, and those references help tell a story about how the authors reached their conclusions. References tell the story of the research itself; they show the history, they reveal facts that support the assertions, and they lead the reader to the underlying data.

But what about the story behind the evaluation process that brings that research to the public? There is an important story that needs to be told about this part of the life of the research article. The story behind the editorial process—the subplot, so to speak—can help readers and other researchers understand and evaluate the rigor of the peer review and the quality of the publishing process. It would be really useful for readers, funders, and institutions to know what kind of quality checks were made on the manuscript, how many reviewers assessed which versions, and what changes the editor asked the author to make. All of these rich details that are hidden within the editorial workflow should be part of the story.

There is an interesting initiative underway to help tell the story behind the editorial process for any document that claims to be a scholarly work. The initiative, called the DocMap Framework, seeks to define a machine-readable protocol that anyone can use to either communicate the details of the editorial process or to receive and interpret those details. DocMaps has been described as a sort of breadcrumb trail that shows the path that a piece of research, such as a research article, has followed during the evaluation process. Unlike actual breadcrumb trails, DocMaps do not necessarily tell a linear story, since evaluation of an article can have multiple paths that might occur in parallel or in nonsequential ways. It should be noted that this initiative is not intended to be limited to scholarship, and the DocMaps Framework could be used to tell the story of any document that claims to have undergone any sort of vetting, such as a news article or government report.

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An editorial story might sound like this: AUTHOR submitted an ARTICLE TYPE called TITLE to JOURNAL on DATE. The article went through SIMILARITY CHECK and REFERENCE CHECK. The EDITOR assigned REVIEWER 1 and REVIEWER 2. REVIEWER 1 said BLAH BLAH BLAH. Reviewer 2 said YADA YADA YADA. EDITOR felt that the paper needed a statistical review, and so she asked STAT-REVIEWER to weigh in. STAT-REVIEWER said that the paper needed to conform to SPECIFIC STATISTICAL METHODOLOGY. EDITOR asked AUTHOR to REVISE.

As humorist John Hodgman says, "Specificity is the soul of narrative," and in the above story, the words in uppercase would be filled in with the actual details of what evaluation took place during the editorial process.

To be clear, the DocMaps Framework does not tell a story in the narrative way demonstrated above; rather, the DocMaps Framework provides a machine-readable structure in which the details are meaningfully listed (Figure). The DocMap would be embedded in the electronic document, not to be read by the reader, but rather to be received and read by other systems. Those other systems can then take that information and assemble the narrative in whatever format the receiver intends. For example, a journal platform or indexing service might develop a badging system to indicate that certain quality checks were performed. A funding body might use the information to analyze the rigor of peer review, and to draw comparisons between specific types of peer review and article impact. A publisher might use the information to assess their editorial processes in general and make adjustments to increase efficiency.

DocMaps Origin

DocMaps was started by a small group of individuals from the Knowledge Futures Group, a nonprofit which started as a collaboration between MIT Press and MIT Media Lab, ASAPbio (a scientist-driven nonprofit advocating for open communication in the life sciences), and Graz University of Technology (an Austrian public university offering degrees across all technology and natural science disciplines). The DocMaps Framework initiative receives financial support from Howard Hughes Medical Institute. In a press release[5] from August of 2020, Gabriel Stein, Jessica Polka, and Tony Ross-Hellauer announced the project as a "new community-endorsed framework for representing editorial research events

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    }
]
```


Figure. DocMap[1] created by Sciety[2] for an NCRC evaluation[3] of a recent medRxiv preprint[4].

at the research output level." In other words, they are seeking to define a mutually agreed method for communicating what milestones a research article has passed through once it is released into the scholarly communications ecosystem.

They noted that they were responding to "numerous efforts to better capture the review processes used on individual articles." Some of these efforts included the following:

- *Transpose (TRANsparency in Scholarly Publishing for Open Scholarship Evolution)*: a database of peer review journal policies focused on open peer review, coreviewing, and preprints. The goal is to catalog existing policies, to foster experimentation, and to help journals share ideas around peer review.[6]
- *Peer Review Transparency*: an initiative to create agreed definitions of how peer review is conducted, and to disclose to readers the kind of review a published scholarly work has gone through. This initiative is supported by the Open Society Foundations.[7–9]
- *Review Maps*: an initiative that advocates for the creation of machine-readable "maps" that can be published alongside research articles and other scholarly output. These "maps" would facilitate evaluation of the editorial process by surfacing indicators such as thoroughness and trustworthiness.[10]
- *Peer Review Taxonomy*: from the International Association of Scientific, Technical and Medical Publishers (STM), this initiative seeks to standardize definitions and terminology in peer review. STM has stated that, "An agreed peer review taxonomy will help make the peer review process for articles and journals more transparent and will enable the community to better assess and compare peer review practices between different journals."[11]

It is also useful to mention 2 other initiatives that seek to create structure around peer review for the purposes of communicating details of the editorial process.

- *JATS for Reuse (JATS4R)*: a working group devoted to optimizing the reusability of scholarly content by developing best practice recommendations for tagging content in JATS XML. The JATS4R Steering Committee reviews recommendations on the use of JATS XML tags that are being proposed by groups working with the National Information Standards Organization (NISO) on related Recommended Practices.[12,13]
- *Manuscript Exchange Common Approach (MECA)*: a methodology to package files and metadata, including peer review data, in order to transfer that package from one system to any other system, such as from one submission system to another, or from a preprint server to a submission system (and vise versa), or from an authoring system to a preprint server or submission system. Secondarily, MECA can be used to transfer a package of files and data from a submission system to a production vendor. The goal is to have a common process and method to exchange manuscripts in any direction without having unique requirements from system to system. MECA is a NISO Recommended Practice.[14]

What Is DocMaps?

Each of these initiatives approach the topic from different, usually more narrowly focused perspectives. However, DocMaps is intended to accommodate a wider set of constituents as well as a wider set of use cases. The DocMaps project goes beyond traditional scholarly publishing practices and seeks to also support new, emerging editorial models, like preprints, postpublication review, and open science.

Three requirements were identified as essential for developing a framework that could be used by a constituency as varied as scholarly publishing.

1. *Extensibility*—a wide range of editorial process events should be able to be represented, ranging from a simple assertion that a review occurred to a complete history of editorial comments on a document to a standalone review submitted by an independent reviewer.

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2. *Machine-readability*—assertions should be represented in a format that can be interpreted computationally and translated into visual representations.
3. *Interoperability*—a single service should be able to interpret multiple taxonomies against the same criteria and arrive at the same interpretations.

The DocMaps team, which was expanded to also include Gary McDowell, of Lightoller LLC, has produced a white paper,[15] which has been posted on the bioRxiv preprint server. This preprint describes the efforts of the DocMaps Technical Committee, of which I was a member. The technical committee met several times over the course of a

Table. JSON examples of DocMaps.

1. "In this example, a journal is describing a double-masked peer review of an article with two rounds of revisions. They do this by nesting a Review context within an Article Context. They then further nest two Version Contexts within the Review Context to describe multiple rounds of feedback."	{ contentType: "article" content: https://doi.org/article/123 createdOn: 2020-08-16T00:00:00Z provider: https://myjournal.org title: 'An article about something!' contributors: [{ name: "Liz Jones" id: https://orcid.org/0002-0002 role: "author" } { name: "Eric Mays" id: https://orcid.org/0005-0001 role: "data visualization" }] datePublished: 2020-01-01T:00:00Z versions: [{ contentType: "version" content: https://doi.org/article/123v1 date_submitted: 2019-12-20T00:00:00Z date_online: 2020-08-15T00:00:00Z ethics_statements: "This was conducted ethically." ocmpeting_interests: "There were no conflicts of interest." }] reviews: [{ contentType: "review" content: https://doi.org/review/abcd createdOn: 2020-06-01T00:00:00z provider: https://myjournal.org decision_date: 2020-07-20T00:00:00z decision: 'accept with revisions' contributors: [{ name: "John Doe" affiliation: "Wassamatta U" roles: [editor, author] } { id: 12345 roles: [reviewer] } { id: 23456 roles: [reviewer] }] identity_transparency: 'double-anonymized' reviewer_interacts_with: [editor] review_information_published: [editor-identities] versions: [{ contentType: "version" createdOn: 2020-06-15T00:00:00Z contributors: [{ id: 12345 roles: [reviewer] } { id: 23456 roles: [reviewer] }] } { contentType: "version" createdOn: 2020-07-10T00:00:00Z date_online: 2020-08-15T00:00:00Z contributors: [{ id: 12345 roles: [reviewer] }] }] }] }
2. "In this example, a review service is describing a fully transparent review of a preprint article with links to the review report and author response. They do this by including a content field for the review object and filling out the author response and STM Association Taxonomy metadata to describe the process of the review."	{ contentType: "review" content: https://doi.org/review/123 createdOn: 2020-08-01T00:00:00z provider: https://myreviewservice.org decision_date: 2020-07-20T00:00:00z decision: "accept" contributors: [{ name: "Tricia McMillan" affiliation: "Maximegalon University" roles: [editor, author] id: https://orcid.org/0000-0000 author_suggested: false }, { name: "Zaphod Beeblebrox" affiliation: "Betelgeuse State College" roles: [reviewer] id: https://orcid.org/0001-0001 author_suggested: true } { name: "Arthur Dent" affiliation: "BBC" roles: [reviewer] id: https://orcid.org/0002-0002 } { name: "Ford Prefect" affiliation: "Pan Galactic Gargle Blaster Society" roles: [invited_reviewer] id: https://orcid.org/0002-0002 }] author_responses: [{ contentType: "version" content: https://doi.org/response/123 date_online: 2020-07-31T00:00:00Z date_submitted: 2020-07-15T00:00:00Z }] identity_transparency: [all-identities-visible, opt-in] reviewer_interacts_with: [editors, reviewers, authors] review_information_published: [reviewer-identities, editor-identities, review-reports-author-opt-in] versions: [{ contentType: "version" date_submitted: 2020-06-15T00:00:00Z date_online: 2020-07-31T00:00:00Z }] isReviewOf: [{ contentType: "article" content: https://doi.org/preprint/123 }]

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few months, and using the Delphi Method, this group of 18 people from across scholarly publishing defined 2 use cases on which to focus their efforts.

When examining editorial processes, it becomes clear that there are many variations in workflow. There are various participants (e.g., types of editors and reviewers), QA procedures (e.g., plagiarism and reference checks), and different ways that events are sequenced. In the wake of COVID-19, new paradigms have arisen, such as the increased use of preprints, overlay journals, and presubmission peer review, which meant that the technical committee had to consider what seemed like an ever-expanding array of options. Limiting this initial exploration to just 2 use cases had the practical effect of keeping the conversations focused.

The 2 use cases were as follows:

1. A publisher captures context about a review of an article published in their journal.
2. An independent review service notifies a preprint server about a review of an article on their platform.

Once the use cases were identified, the technical committee went about creating the actual DocMaps Framework by identifying what events would likely take place, what aspects of those events needed to be described, and how they would be described. Content type schemas were drafted and the resulting proposed DocMaps Framework was posted online[16] on January 11, 2021.

The draft DocMaps Framework document includes sample JavaScript object notation (JSON) along with usage guidance for constructing a DocMap. These are really just examples that have not yet been finalized. The JSON samples for the 2 use cases, as shown in the preprint on bioRxiv, can be found in the Table.

Next Steps

There is now an informal working group with members from Knowledge Futures, Cold Spring Harbor Laboratory, eLife's Sciety, and EMBO's Early Evidence Base working on a DocMaps pilot implementation focused on use case no. 2. This working group will pilot the DocMaps Framework by applying it to the evaluation of preprints posted on the bioRxiv and medRxiv preprint servers, using evaluations aggregated by Early Evidence Base and Sciety. The intention is to show how DocMaps will provide machine-readable data and context about how community groups and peer review platforms are evaluating preprints.[17]

Exposing the details and telling the full story behind what goes into preparing a piece of research will help people identify bad, or at least insufficiently evaluated, science. It will also increase trust by confirming that a piece of research has been sufficiently and rigorously vetted. Through embedded code that can be read by any system set up to do so, DocMaps will reveal the inner workings of the editorial process—from technical checks, to peer review, to the editor's communication with the author. These important details are part of the story that needs to be told. By providing a standardized, machine-readable way to tell the story, downstream systems can take those details and build reports, compare processes, and supplement the research narrative with a subplot about the evaluation process. This means that funders, researchers, journalists, policy makers and readers will have a means by which they can evaluate the rigor of the editorial process. The eventual adoption of the DocMaps Framework means greater transparency in scientific communications and scholarly publishing.

Disclosure

Tony Alves participated on the DocMaps Framework Technical Committee and is co-chair of the NISO MECA Standing Committee.

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Building More Creative and Interactive Conference Sessions

Heather Staines

Many industry conferences, including CSE, have gone online (or hybrid, at least) to comply with Covid 19 restrictions. Online formats necessarily have fewer session tracks, making it even harder to get a proposal accepted; combine that with Zoom fatigue and coming up with an interesting and engaging program is even more challenging. When we are mostly still working and even socializing on our computers, the last thing we may want to do is watch a long uninterrupted set of PowerPoint presentations online. How can we draw the audience in?

Challenges for Programming: Online Conferences

I began my publishing career as a book acquisitions editor, so my conference experience was largely in the exhibit hall, meeting with authors and looking for new projects. Whether it was a history or a library meeting, I rarely took the time to attend informational sessions, and I never gave a thought to who planned them. It wasn't until I started attending publishing meetings that I really became aware of the volunteers that made such events go. Once I joined a program committee for the Society for Scholarly Publishing (SSP), and got involved with folks from across the industry, I was hooked. What better way to explore interesting topics than to meet the experts and craft sessions that enabled them to share their knowledge? I'm always on the lookout for topics I've not seen addressed before and new potential speakers. That has made the Covid transition difficult.

Online conferences are hard for speakers and attendees, but I've found that they open up many possibilities for organizers. With increasing emphasis on diversity, it's been so refreshing to cast a net wider than the folks who could already afford to travel to a meeting. I've moderated panels that spanned continents, spanned disciplines, with every age and career stage represented, along with many cultural and ethnic perspectives. With hybrid conferences on the horizon for attendees, I'm hoping that the ability to support remote speakers will remain too. Attendee demographics have also changed, giving the opportunity for those who cannot travel for health, mobility, or time issues. Registration costs are typically lower for online conferences, reducing the financial barrier.

Many conferences pivoted to online formats with almost no notice, and conferencing platforms are still evolving to meet stakeholder needs. I don't intend any of this to be a criticism of events or platforms, but these are things I have found disagreeable. While recording sessions ahead of time reduces technical issues, there's something to be said for those speaking live, reacting in response to attendee chats. Some platforms make other attendees invisible, which removes any notion of a shared experience. Speaking at an event like that is like shouting into the void. Recently, more events have offered interactive networking space with tools like Spatial Chat, GatherTown, or REMO. While zipping an avatar around a virtual space is no substitute for meeting in the exhibits or the hotel bar, it does meet some key needs to catch up with friends and meet new people.

Mixing Things up With Interactive Sessions

I'd actually been experimenting with more interactive sessions at in-person conferences for a while, particularly around how to boost audience participation. A typical interactive session involves speakers crafting brief scenarios designed to illustrate a challenge or a misconception around their topic and then providing stakeholder perspectives that speak to that issue. Audience members receive a card identifying them as an author, editor, librarian, or more. They can then choose from answers already on their card (should it be a topic they are not experienced with) or supply their own response if it is an area they know well. Some participants are reluctant; some are eager. Some are deadpan in their delivery; others ham it up. Everyone seems to have a fun time though, and it's more entertaining than watching a 5 minute presentation on the same topic. Using this format, I've helped with sessions on standards, peer review, preprints, and accessibility. (Ask me if you want to know more about this technique which can be adapted to online conferences as well.)

Other interactive formats have included roundtables, interviews, or a riff on "PowerPoint Karaoke" where speakers

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The adventurers face the three-headed troll of conflicting author mandates on their way to the Castle of Compliance. (Credit: Barry Martin, https://www.linkedin.com/in/barry-martin-36151971/; https://www.instagram.com/randommonstertable/)

react to topics depicted in pictures on slides. All of these involve a bit more preparation than the usual 3 presentations plus Q&A format. But I do think it is worth it in terms of the engagement level of the session.

Taking Interactivity to a Whole New Level

Fast forward to winter 2020–2021, I was doing some business development work for a startup called DataSeer (https://dataseer.ai), and we submitted a proposal for SSP later that spring for consideration. I thought we could organize the session as a game that could play out across PowerPoint slides. (Full disclosure: I was thinking Shoots and Ladders or Candyland.) Enter Tim Vines, founder of DataSeer, who had a different idea in mind: Dungeons and Dragons—a quest! One of the key value propositions of DataSeer, which uses machine learning to identify datasets within papers to help authors and editors comply with funder mandates, is compliance. Our draft title: "Walking the Rocky Road from Policy to Compliance: A Live Adventure." Online D&D is already well established, as is tuning in to watch other people play via, e.g., Twitch, so the idea of transplanting it into a conference session wasn't as crazy a leap as it might sound.

We had some initial ideas for speakers, but we needed to be sure they would be comfortable with our approach. We were going to need them to be onboard in crafting the quest narrative. That meant securing speakers with the relevant expertise who would be willing to put themselves out there a bit (and, as it turned out, fashion some rudimentary costumes).

We couldn't have gotten luckier with an amazing set of presenters, as seen in their entertaining introductions below. With 2 speakers on the U.S. East coast, 1 in Vancouver, and 2 in Brisbane, our planning calls were sometimes challenging to schedule, but everyone was so committed to the project that they were always a pleasure.

Below is Tim's entertaining introduction:

Our Ranger, Jessica Miles, is from an obscure organization known only as "Elsevier." Rumour has it that she has tamed numerous strange beasts known as "Trends Journals" and must struggle daily to keep up with their demands for fresh manuscripts to devour. I suggest that you stay on her good side.

Our Cleric, Natasha Simons, hails from the sacred order of the Australian Research Data Commons. The order devotes itself to making things open, particularly datasets and research infrastructure, but also cans and cupboards. Beware, for the order's influence grows throughout the land.

Finally, you are fortunate to be joined by our dashing Brava, Ginny Barbour. She has been the hidden hand behind many pivotal events in the land of science publishing. She was there when PLOS Medicine was discovered. She ruled the Committee for Publication Ethics for many years, and lurked in the shadows as the great guidelines of PRISMA and CONSORT were forged from community consensus. Even now, she flits between an identity at Queensland University of Technology and a disguise as the director of Open Access Australasia.

We knew we wanted to depict a quest, but what kind of quest with what challenges or obstacles? Tim's creativity was boundless. We settled eventually on 3 obstacles that each journeyer would have the expertise to navigate. A

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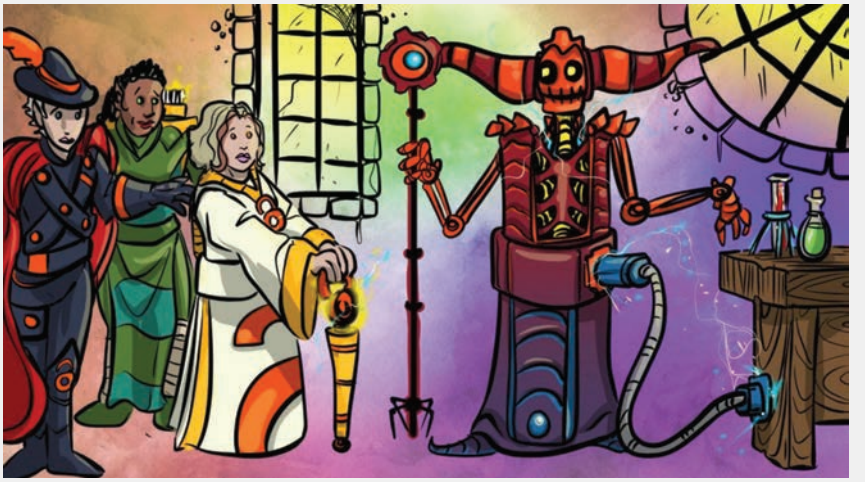

Our brave questers must outwit the Wizard of Machine Actionable Metadata. (Credit: Barry Martin, https://www.linkedin.com/in/barry-martin-36151971/; https://www.instagram.com/randommonstertable/)

friend of Tim's brought all of us and the obstacles to life in amazing drawings. We battled the 3-headed troll of conflicting mandates, outwitted the Wizard of Machine Actionable Metadata, and avoided the temptations of the Chasm of Publishing Integrity to reach the Castle of Compliance! Along the way, Tim's carefully crafted script was brimming with entertaining references to publishing, societies, standards, and more. However, we wanted to take this game a step further.

From the outset, we knew we wanted to involve the audience, and we settled on a tool called Slido (https://www.sli.do) which attendees could navigate to via a link. Each obstacle had a question with multiple fun answers to get our band past the challenge. The last question was created as a riddle, incorporating the four FAIR data principles into the responses—with yours truly doing the big reveal! Our weary travellers celebrated in the Castle of Compliance. We even had time for questions.

On the day itself, our players were bristling with energy. We'd done some run-throughs, but never truly tested it for time. We knew we were going to have a lot to juggle with Slido responses. In general, I'd give us good marks on technical navigation. Tim forgot to return to the slides at one point, and we had some issues getting Slido results to appear properly. But, judging from the audience responses (in particular the always evocative Anna Jester), nobody was too critical of these foibles. I had said all along the session would be epic—either an epic fail or epic, and I'd say that we pulled it off.

I leave you with an additional excerpt from the session, below. I'd love to hear about your creativity for past and future sessions. Let's take these presentations to the next level!

The Cleric's Challenge

As they reach the wrought iron gates, Blessed Natasha steps forward and runs her hand over the metal. With a shudder she realises that she recognizes these symbols. They're poorly formatted DOI's! What mad hand could create such a monstrosity?

Our party's vision swims and with a lurch they find themselves suddenly inside the tower. Across the room stands a strangely wired wizard…

With a crackle the wizard turns to face them. "More poor fools trying to reach the Castle of Compliance! What makes you think your feeble bodies can make it there without my help? The road is paved with millions of research outputs and more appear every day! No… you must pay tribute to me, for I am the Great Wizard of Machine Actionable Metadata. Without my help, every path you take from here generates a 404 error."

The party huddles around—what offering can they make to satisfy the Wizard of Machine Actionable Metadata? Should they try to defeat it instead? Dear audience, they cast their beseeching eyes to you!

[Poll 2 opens]

Help Natasha choose among these 4 options!

1. The party promises to label every one of their possessions with an RRID.
2. Ask the wizard if it's OK if only one of the party has an ORCID and hope it explodes.
3. Vow to henceforth always add a data citation to their references section.
4. Apologize profusely for not acknowledging the funding for this expedition, but explain that "stolen dragon hoard" wasn't on the FundRef list

Reinventing Our Publications Department: How the COVID-19 Quarantine Pushed Us Into the 21st Century

Matt Ferguson, Scott D Morrow, Jon Munn, and Kathleen Washawsky

Half a century ago, paperless work environments were a speck on the horizon. Theoretically, the introduction of computers with visual displays would eliminate the need for printing because information could be shared digitally. The idea of paperless publishing—rapid delivery of content to an expanded audience—followed. But what about publishers themselves becoming paperless? Would the workflow process, and final product, suffer? This case study details how the Publications Department at the American Urological Association navigated the transition to a paperless office during the COVID-19 pandemic, propelled by the sudden switch to a virtual work environment.

When our organization's headquarters shut down in March 2020 for the COVID-19 pandemic quarantine, our publications department was still heavily paper-based. We'd made steps into the 21st century in our use of the cloud-based platforms Editorial Manager (EM) for manuscript submission/tracking and Citrix Files (ShareFile) for copyediting, but much of our work still involved printing out reams of article correspondence and proofs to mark by hand, scan, and email to our publisher.

Our department produces 2 peer-reviewed journals, a monthly organizational news magazine, and a yearlong continuing medical education (CME) series—all handled by a relatively small group of 8 people (3 managing the peer-review/acceptance process and 4 handling all duties related to production, including copyediting and proof management, overseen by an executive editor). Though our peer-review team had been whizzing through the ins and outs of EM for years, our production team had barely started using the companion ProduXion Manager for content management and postacceptance tracking.

As we watched the reports of the spread of COVID-19 in early 2020, we realized that the switch to working from home was a matter of "when" and not "if." Over a period of about a week, we conferred to determine how we could continue to operate on a fully remote basis.

Communication

One of the first issues was communication between our peer-review and production teams. Traditionally, information was passed to production staff via printed pages and handwritten notes in the bundled "correspondence"—a stack of papers for each article with printouts of submissions, notes and forms that could range up to hundreds of pages, bound by a rubber band or metal clip. We knew immediately that these bundles would not translate to a remote environment.

We'd already been sharing documents through ShareFile, creating a folder for each scheduled issue where peer-review staff could upload invited content (such as editorials/commentary/author replies) as it was received, and had also been keeping our production status list for each issue there. We decided to expand our system of folders on ShareFile to accommodate article files at each stage of production and developed a file-naming system that would enable us to immediately recognize what had been done with an article as it passed through our workflow. We also began recording all of our notes for each article in the "Details" box in EM, which served as a virtual notepad to which we all had access.

Full Speed Ahead

Just as the finer points of our production process were being hammered out, our executive editor unexpectedly retired a few weeks into the quarantine, and our remote office experiment moved into its next phase. We were now a ship without a captain in somewhat unfamiliar waters (a virtual

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work environment), but not uncharted territory. Strangely, in this new environment, with its requirements of near-constant communication, we began working more closely than ever, continuously adjusting and refining our workflow.

Within 2 months, a new executive editor was brought onboard, and our course changed again. An ongoing sticking point had been our issue-driven deadlines. Since before we could remember, these deadlines had served as the framework for the production schedule. During any given month, proofs for one publication could be due on the same day as copyedited manuscripts for another, and proofs for our newsletter could be due around the same time as copyedited manuscripts for our CME series.

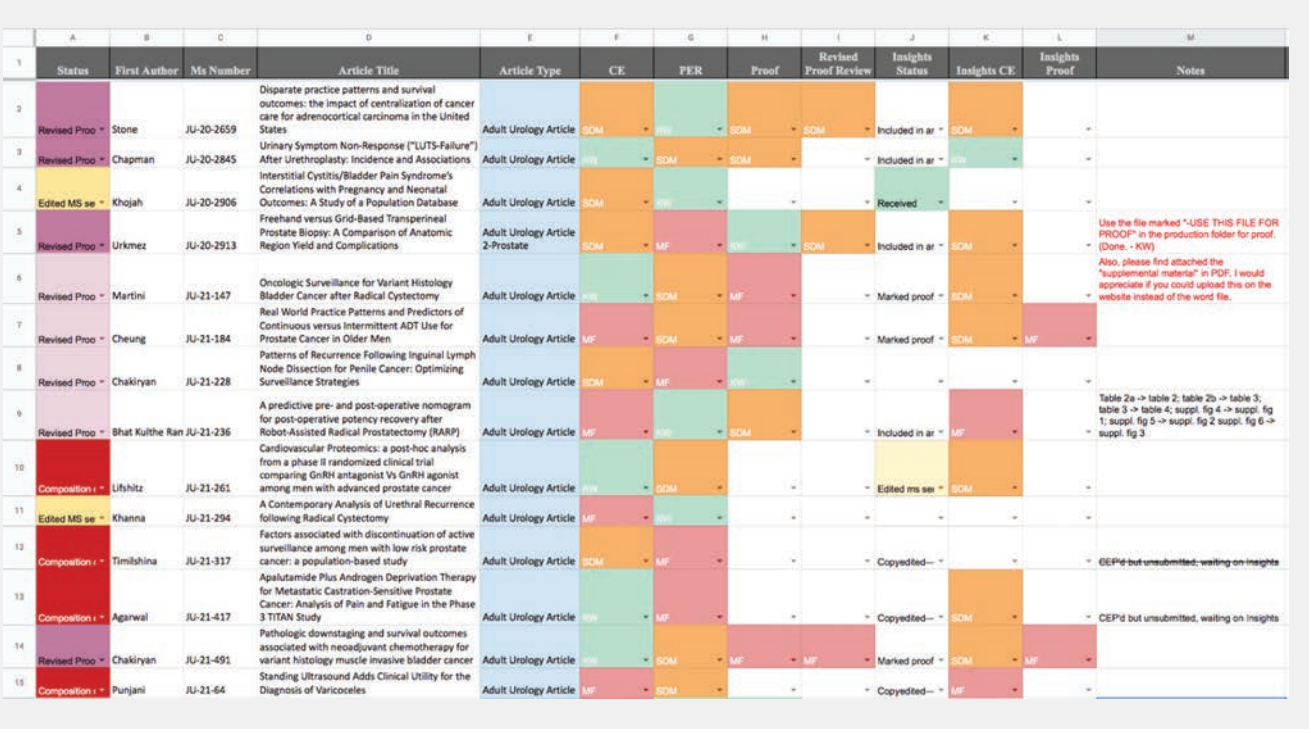
Our first order of business was to transition from issue-based deadlines to an article-based workflow to eliminate the inevitable buildup of work being turned in at the end of a production cycle. This shift would involve copyediting manuscripts as soon as they came in from conversion and reading proofs as soon as they came back from composition, regardless of publication or issue month. Where we previously had a dedicated proofreader and 3 copyeditors, now the team (made up of 2 copyeditors, an editorial coordinator, and a publications production manager) would work on every phase of production for all publications, moving seamlessly across various tasks in a typical workday.

Streamlining

As we leaned into initiating this article-based workflow, it quickly became evident that the sheer volume of articles printed across our publications necessitated an internal tracking system. With that need in mind, we created the Journals Production Tracker in Google Sheets (Figure). The beauty of this Web-based spreadsheet software (apart from its $0 price tag) is its collaborative nature: every member of our team can simultaneously view and edit the spreadsheet, allowing us to see the work being copyedited and processed in real time, and preventing any redundancies or missed tasks.

Each scheduled issue is given an individual sheet in the tracker, which is then populated with a row for each article in that issue. With a little spreadsheet magic, thanks to data validation (dropdown menus) and conditional formatting (color coding), the result is an easy-to-use tool that allows us to track articles through all stages of the production lifecycle.

It's important to understand that the Production Tracker did not replace anything. We still use ProduXion Manager for the actual production process. Edits and comments are still made in Microsoft Word. Proof markups still appear on PDFs in Adobe Acrobat. We still get plenty of mileage out of Outlook. Instead, the tracker supplements the process: it pulls back the curtain and allows every member of our team to know exactly where we are at any given point.



Status	First Author	Ms Number	Article Title	Article Type	CE	PER	Proof	Revised Proof Review	Insights Status	Insights CE	Insights Proof	Notes
Revised Proo	Stone	JU-20-2659	Disparate practice patterns and survival outcomes: the impact of centralization of cancer care for adrenocortical carcinoma in the United States	Adult Urology Article	SDM	KW	SDM	SDM	Included in ar	SDM		
Revised Proo	Chapman	JU-20-2845	Urinary Symptom Non-Response ("LUTS-Failure") After Urethroplasty: Incidence and Associations	Adult Urology Article	KW	SDM	SDM		Included in ar	KW		
Edited MS se	Khojah	JU-20-2906	Interstitial Cystitis/Bladder Pain Syndrome's Correlations with Pregnancy and Neonatal Outcomes: A Study of a Population Database	Adult Urology Article	SDM	KW			Received			
Revised Proo	Urkmez	JU-20-2913	Freehand versus Grid-Based Transperineal Prostate Biopsy: A Comparison of Anatomic Region Yield and Complications	Adult Urology Article 2-Prostate	SDM	MF	KW	SDM	Included in ar	SDM		Use the file marked "-USE THIS FILE FOR PROOF" in the production folder for proof. (Done. - KW)
Revised Proo	Martini	JU-21-147	Oncologic Surveillance for Variant Histology Bladder Cancer after Radical Cystectomy	Adult Urology Article	KW	SDM	MF		Marked proof	SDM		Also, please find attached the "supplemental material" in PDF. I would appreciate if you could upload this on the website instead of the word file.
Revised Proo	Cheung	JU-21-184	Real World Practice Patterns and Predictors of Continuous versus Intermittent ADT Use for Prostate Cancer in Older Men	Adult Urology Article	MF	SDM	MF		Marked proof	SDM	MF	
Revised Proo	Chakiryan	JU-21-228	Patterns of Recurrence Following Inguinal Lymph Node Dissection for Penile Cancer: Optimizing Surveillance Strategies	Adult Urology Article	SDM	MF	KW					
Revised Proo	Bhat Kulthe Ran	JU-21-236	A predictive pre- and post-operative nomogram for post-operative potency recovery after Robot-Assisted Radical Prostatectomy (RARP)	Adult Urology Article	MF	KW	SDM		Included in ar	MF		Table 2a -> table 2; table 2b -> table 3; table 3 -> table 4; suppl. fig 4 -> suppl. fig 1; suppl. fig 5 -> suppl. fig 2 suppl. fig 6 -> suppl. fig 3
Composition i	Lifshitz	JU-21-261	Cardiovascular Proteomics: a post-hoc analysis from a phase II randomized clinical trial comparing GnRH antagonist Vs GnRH agonist among men with advanced prostate cancer	Adult Urology Article	KW	SDM			Edited ms se	SDM		
Edited MS se	Khanna	JU-21-294	A Contemporary Analysis of Urethral Recurrence following Radical Cystectomy	Adult Urology Article	MF	KW						
Composition i	Timilshina	JU-21-317	Factors associated with discontinuation of active surveillance among men with low risk prostate cancer: a population-based study	Adult Urology Article	SDM	MF			Copyedited--			~~CEP'd but unsubmitted, waiting on insights~~
Composition i	Agarwal	JU-21-417	Apalutamide Plus Androgen Deprivation Therapy for Metastatic Castration-Sensitive Prostate Cancer: Analysis of Pain and Fatigue in the Phase 3 TITAN Study	Adult Urology Article	KW	MF			Copyedited--	SDM		CEP'd but unsubmitted, waiting on insights
Revised Proo	Chakiryan	JU-21-491	Pathologic downstaging and survival outcomes associated with neoadjuvant chemotherapy for variant histology muscle invasive bladder cancer	Adult Urology Article	KW	SDM	MF	MF	Marked proof	SDM	MF	
Composition i	Punjani	JU-21-64	Standing Ultrasound Adds Clinical Utility for the Diagnosis of Varicoceles	Adult Urology Article	MF	SDM			Copyedited--	MF		

Figure. Production Tracker segment for *The Journal of Urology®*.

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For the production team to achieve a fully functioning article-based workflow, we realized that we needed to focus on both the small picture (those tasks that were imminent) and the big picture (those tasks that were on the horizon). To help reach this goal, we devised a daily team email that contains a list of 3–4 tasks, including copyediting, postedit review, proof review, revised proof review, and article formatting, listed in order of importance for that day. Each day, the production manager assesses all of the tasks remaining across the 4 society publications to determine which need the most immediate attention and puts together a daily workload for an 8-hour workday.

The daily team email includes a list of the issues of each of the publications currently in production, with updated counts on which articles still need copyediting, postedit review, proofreading, and revised proof review, along with all of the important production deadlines leading up to the publication of each issue. At the end of the day, the team members send the production manager their accomplishments, which the production manager reviews to determine the next day's goals. Importantly, daily accomplishments are not viewed as an indication of failure or success, but as a gauge of real-life expectations for future scheduling. Weekly check-ins between the production manager and each team member are held to assess how team members are doing in hitting the daily goals, and what is needed to overcome any "pain points." This practice has enabled the team to maintain focus on what needs to be done each day while not losing sight of what's on the horizon. Also, by dividing the total workload into "bite-sized" pieces, we're able to chip away at the iceberg at a much reduced stress level.

Conclusion

Fast forward to June 2021. With all our new efficiencies in place, we have increased the size of our publications, added 1-page Insight articles that summarize our full-length clinical articles, achieved a fluid workflow (avoiding end-of-cycle pileups) and are considering launching a new Open Access publication. A welcome byproduct of our new modus operandi is that every team member can take time off knowing that the rest of the team can step up, step in, and handle virtually any task required.

Important factors in our success were team communication and respect. Whether marking the status on the tracker as "in progress" or changing a filename to include "waiting for reply," we have created a workflow where any of us can assess what needs to be done at any moment. And in a supportive environment we all feel comfortable suggesting improvements. To be sure, our process continues to evolve. But, based on our handling of all the attendant changes during the past year, our department feels ready for whatever comes next.

Diversity, Equity, and Inclusion (DEI) Task Force Update and Future Direction

Melissa B Schmidt and Otito Frances Iwuchukwu

As members of CSE, you've undoubtedly seen, in some capacity, our mission statement: "To serve editorial professionals in the sciences by creating a supportive network for career development, providing educational opportunities, and developing resources for identifying and implementing high-quality editorial practices." While there's no explicit mention of equitable representation and access in that single phrase—with respect to either the data published by the journals we represent or to our profession itself—there is an allusion to it in the supportive network verbiage that CSE leadership has taken great care to formalize in recent years. In 2017, CSE became one of 10 founding organizations of the Coalition for Diversity and Inclusion in Scholarly Communications (C4DISC). The mission of C4DISC is to "work with organizations and individuals to build equity, inclusion, diversity, and accessibility in scholarly communications." In 2019, the CSE Board of Directors ratified a code of conduct affirming the organization's commitment to equal opportunities and treatment for all regardless of race, ethnicity, gender, sexual orientation, gender identity and expression, disability, religion, age, appearance, or political affiliation, as well as its commitment to maintaining an environment free of harassment, discrimination, and hostility. Further, consequent to the nationwide protests against systemic racism, the CSE Board agreed upon the need for further action within our organization and, on June 8, 2020, approved the formation of the Diversity, Equity, and Inclusion (DEI) Task Force.

With this inaugural column from the DEI Taskforce, we intend to create a regular open channel of communication between the Task Force and all CSE members, with whom we hope to interact in a variety of ways. At the time of this writing, CSE leadership is in the process of finalizing a charter that will transition our group into an official Committee. We consider it necessary at the beginning to provide you with an overview of where the CSE DEI Task Force has been and where the new DEI Committee plans to go.

Upon its inception in the summer of 2020 and commencement of regular meetings in the fall of that year, the DEI Task Force members viewed as their purpose 3 key objectives: 1) to collect information about the programs being offered to current CSE members to increase their knowledge about DEI initiatives within the profession; 2) to assess knowledge gaps among current CSE members regarding DEI initiatives that pertain to either their individual positions or to best practices in editing and publication management; and 3) to envision ways to engage and support new members who have not traditionally seen science editing, scientific publishing, STEM publishing, and/or membership in CSE as inclusive. In a series of monthly meetings, the 11-member Task Force conducted a series of lively discussions centered primarily around how we might conduct—and specifically quantify both the results of and target metrics for—an "environmental scan" of what CSE currently offers its members. We considered whether this might take the form of an assessment of past webinars currently available as enduring material on the CSE site, and whether it would be useful to examine diversity among the faculty of those offerings and the content discussed within them. We had many nuanced discussions about whether this scan of past content was useful and, more importantly, whether it could be accurate. Without the self-reported demographic data of faculty, could we accurately calculate true inclusion? And further, what would this "calculation" of inclusion look like? Would we assign a certain number or percentage of demographic groups that should have been (and should be in the future) included for every educational panel as Key Performance Indicators? Ultimately, we decided as a group that the more meaningful endeavor would be to set guidelines for our future role in evaluating and approving the content

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and faculty participation of all future events against a set of both qualitative and quantitative metrics. This project will be the purview—and likely the first measurable project undertaken by—the CSE DEI Committee after it is officially convened.

Second, members of the Task Force participated in and supported several related projects, including the establishment and population of CSE's new DEI Scholarly Resources database,[1] a compilation of guidance documents from member organizations; a DEI Roundtable at the spring 2021 annual meeting; and a request from a member organization to develop a custom DEI training for their editors. This final aspect is among the most important to the members of the Task Force as we transition into a Committee. We feel strongly about the importance of detailed, practical training for our members and their organizations about how to fully incorporate an ethos of inclusion into their editorial boards and staff hiring practices, peer review, publication workflows, language editing, and more. We feel the Committee is in a unique position to develop these resources, additionally making clear our staunch belief that the integration of diversity, equity, and inclusion principles into future scholarly publishing is critically necessary. All of the above on behalf of CSE.

> ***This is, ultimately, a commitment that we all share—ensuring that our organization reflects our best, most earnest, most equitable, and fair representation of both our profession and the work we publish in our scholarly communications.***

As we move into this new phase of DEI work at CSE, the Committee will focus on expanding our internal and external "environmental scan" efforts to establish a picture of where the DEI "movement" stands in scholarly publishing, including current best practices and future areas requiring additional work. Those findings will be used to establish a 2-year strategic plan to guide the Committee's overall effort. This plan will identify clear, reasonable, measurable, and timely goals, objectives, activities, and metrics (outcomes), all of which will be publicly shared with you. We will establish a specific set of guidelines that can be used by organizations to advance their work in areas related specifically to diversity, equity, and inclusion. We will codify a procedure that identifies the points at which the DEI Committee should be involved or consulted during program planning and what information will be required for review to provide appropriate feedback. This may involve asking the Program Committee to invite an open statement from all authors/presenters about how diversity was considered in preparation for their sessions, a method that organizations like Cell Press already use. We will use surveys to hopefully establish the reasons some individuals have not sought CSE membership in the past and review available demographic data to assess how we might attract, recruit, and retain new members of our profession; part of this will involve determining the extent to which current members who are part of historically underrepresented groups are actively engaged on committees that operationalize the work of CSE. Finally, we will create a meaningful and detailed plan for conducting more qualitative, active listening opportunities, like the 2021 DEI Roundtable, as we believe that is the best path to rich discussion and deep learning. The formation of CSE's DEI committee represents another opportunity for interested CSE members to not only join but to play an active role. Such roles may include leading relevant task identification and then working collaboratively on these with other committee members. This is, ultimately, a commitment that we all share—ensuring that our organization reflects our best, most earnest, most equitable, and fair representation of both our profession and the work we publish in our scholarly communications.

Acknowledgement

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Reference and Link

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Updated Guidance on Language Appropriate for Reporting Race and Ethnicity

Stacy L Christiansen

For writers and editors of scientific publishing, usage and word choice are critically important. This is especially true when describing patients or other individuals and when discussing race and ethnicity. The language used must be clear and precise and must reflect fairness, equity, and consistency in the reporting of race and ethnicity.

The *AMA Manual of Style* provides extensive guidance to those who write, edit, and publish in the biomedical literature, including a dedicated section on inclusive language. Even though the latest edition of the manual was just published in 2020, ongoing and recent events spurred us to revisit the guidance on reporting race and ethnicity (and we will be examining other content in the inclusive language section as well, including sex and gender, age, socioeconomic status, and persons with diseases, disorders, or disabilities).

The committee responsible for writing and producing the manual began reassessment of the guidance on reporting race and ethnicity in the spring of 2020. The first decision we made was to recommend capitalization of all racial and ethnic categories (e.g., Black and White are now uppercase). This was presented a year ago in *Science Editor*,[1] along with a preview of some of the topics we were beginning to discuss.

The stylebook committee embarked on an 8-month process of research, writing, editing, external review, and revision. The initial revision was published as an editorial in JAMA in February 2021 with an invitation for wider public review and feedback. Numerous reviewers and scholars with expertise in diversity, equity, and inclusion provided extensive feedback; some of them disagreed with each other. We then conducted another round of research, revision, and review.

STACY L CHRISTIANSEN, MA, Managing Editor, JAMA, and Chair, AMA Manual of Style committee.

Opinions expressed are those of the authors and do not necessarily reflect the opinions or policies of their employers, the Council of Science Editors or the Editorial Board of Science Editor.

The new updated guidance was published in JAMA and incorporated in the online manual in August.[2,3] This section is unique in that it completely replaces the original content online. It is freely available to anyone not only as a chapter outside the paywall, but as a PDF as well.

What follows is a very brief summary of some of the new guidance in this chapter. We welcome writers and editors to use the guidance, to share it, and to cite it. Most importantly, we welcome further feedback on the content. This guidance is not intended to be final but is presented with the understanding that further updates will be necessary as the dialogue surrounding race and ethnicity evolves. There were some issues on which we received conflicting advice; those terms in particular will require careful monitoring.

Changes to Presentation of Terms

Race and Ethnicity

The original section was titled "Race/Ethnicity." However, there are numerous subcategories within race and ethnicity. Given that a virgule (slash) often means "and/or," which can be confusing, we no longer recommend using this construction; as a term it's "race and ethnicity."

Capitalization

As mentioned earlier, we recommend consistency in the capitalization of all racial and ethnic categories. The original style capitalized only terms derived from geographic entities (e.g., African American, Asian); we now recommend consistency in capitalization for all terms. However, we recognize that there are situations in which a writer or editor may deem the capitalization of a particular term as inappropriate (e.g., "white supremacy") and use discretion to vary from this style guidance.

Modifiers not Nouns

Do not present race and ethnicity as nouns; i.e., do not label people as their race and ethnicity, just as we recommend not labeling them with a condition (e.g., asthmatics). If race and ethnicity are discussed, they

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should be modifiers (e.g., Asian patient, Black individual) or predicate adjectives (e.g., patients who are Asian or Black).

Alphabetical Order

List race and ethnicity categories in alphabetical order, not in order of proportion.

Punctuation

Most combinations of proper adjectives derived from geographic entities are not hyphenated (e.g., African American patient).

Avoid Abbreviations

Abbreviations of categories for race and ethnicity should be avoided. In rare instances they may be needed due to unavoidable space constraints in a table or figure, in which case they should be defined in a footnote.

Use of Specific and Collective Terms

Minority, Minorities

Do not use these terms as nouns because they may be inaccurate or stigmatizing. If appropriate, include a modifier when using the word minority, for example, "racial and ethnic minority groups." The term minoritized may be acceptable as an adjective (e.g., "racial and ethnic minoritized group"). "Groups that have been historically marginalized" could be suitable in certain contexts if clearly explained.

Mixed Race

This term may carry negative connotations and should be avoided, unless it was specifically used in data collection (and in such a situation it should be clearly defined). The terms multiracial and multiethnic may be acceptable if the specific categories these terms comprise are defined. Another option may be a category such as "more than 1 race and ethnicity," if study participants were able to self-identify with more than 1 entry on a form, for example. These terms require a clear understanding of how the data on race and ethnicity were collected.

Non-White

If a comparison among racial and ethnic groups is valid and useful to report, indicate the specific groups. In most cases, study designs and statistical comparisons of White vs "non-White" individuals should be avoided in favor of more precise reporting. If such a comparison is justified, authors should explain the rationale and specify what categories are included in the "non-White" group.

Other

The term "other" is a catchall category and should be avoided. Authors should be as specific as possible when reporting racial and ethnic categories. If the numbers in some categories are so small as to potentially identify study participants, the specific numbers and percentages do not need to be reported, provided this is noted. For cases in which the term other is used but not defined, further explanation should be requested.

People of Color

This term was introduced to mean all racial and ethnic groups not considered White and also as an indication of antiracist, multiracial solidarity. However, there is concern that the term may be "too inclusive," thereby minimizing differences among groups. The preference always is to describe or define the specific racial or ethnic categories included or intended to be addressed.

Underserved and Underrepresented

Terms such as underserved (e.g., when referring to disparities among groups) or underrepresented (e.g., when referring to a disproportionately low number of individuals in a particular program) may be used provided the categories of individuals included are defined at first mention.

Conclusion

Many related topics are discussed in the updated manual. A greatly expanded reference list provides support for our findings, and many of the references are excellent resources for further reading. We are implementing this new guidance at the JAMA Network and collecting responses and suggestions for future updates.

Our intention was to provide up-to-date, equitable, and consistent guidance on a critically important issue in scientific publication. We welcome feedback on ways we can continue to improve this guidance for researchers, authors, editors, and readers of the scientific literature.

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It's Okay to Hit That Unfollow Button!

Jennifer Regala

Scholarly publishing social media is, for the most part, just like the scholarly publishing community at large: warm, welcoming, collegial, intelligent, hilarious, and a place where like-minded professionals feel like they belong. At this point, I feel like I know who has adorable dogs and cats, what the return-to-office policies are for many of my colleagues, which organizations use which kind of peer review, individual and organizational thoughts on preprints, and so much more. I would not have had any of these insights without social media.

I have been encouraging you in my past columns to jump on the social media bandwagon. I have been so passionate in my message to you all that I have almost used shouty caps! "DO IT!" I said. "IT'S SO FUN!" I said. "IT WILL DO WONDERS FOR YOUR <insert your goal here> JOURNALS/ORGANIZATION/YOURSELF/YOUR NETWORK!" I said. And I wholeheartedly stand behind my recommendations to put yourself out there on an individual professional level and to use social media as a key tool to promote your organization and its valuable missions.

I was having a conversation with one of my editorial board members recently, and I realized that we are moving from a world where having journal readers is what we are striving for to one in which we are looking for journal consumers. No longer is it good enough for us to hope that an individual picks up our journal and reads it cover to cover. It's more important for us to have consumers who absorb our content in a way that is meaningful to them, and I realize that my responsibility is to facilitate that process. Podcasts, article one-page summaries, visual abstracts, webinars, Meet the Editors events, and of course, social media are all ways that I can repackage and repurpose valuable journal content. The idea of journal consumption, though, makes it clear to me that the process of picking up a journal and reading it is obsolete. Our consumers are participating in the process now, and that is (mostly) a wonderful advancement of our field, in my opinion.

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Opinions expressed are those of the authors and do not necessarily reflect the opinions or policies of their employers, the Council of Science Editors, or the Editorial Board of Science Editor.

With the more active participation in content, though, there will be perils and pitfalls. These are not significant enough to stop my mission, but I definitely keep my eyes open as we navigate the evolution of the dissemination of content for my organization. I also think about my interactions from an individual professional point of view.

You are going to be challenged. I find that when I post anything, it helps to be prepared for responses ranging from crickets to a cacophony of voices disagreeing loudly. Mostly, what you post on social media will take one of the following paths:

- Get lost in the vast sea of other posts
- Be well received by a small group of your followers, maybe even spark a small and constructive conversation on whatever you posted
- Go "viral" (going viral should never be your goal, and we will talk about why in a future column; however, it does happen rarely and often for posts that don't seem like they would go viral)
- The dreaded "roasting." There are topics that are known to trigger heated responses (health care, politics, and preprints, to name just a few). And then there are topics you have no idea will generate an outcry. For instance, you might highlight an article in one of your journals in

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a post without realizing the research described is highly controversial.

People are not always going to be agreeable about what you're posting. Often, their disagreements with your posts will be well-founded and easy for you to address. But sometimes, you will run into someone who is just plain mean. Be prepared with a plan of how to address these reactions.

Professional Challenges

Here's where I will get repetitive. I have stated this often in past columns. Do not represent your organization on social media in a vacuum. This effort should be very collaborative. Work with your important constituents to craft your messaging strategy, including but not limited to your organization's leadership, other departments if you have them (marketing, communications, etc.), your editorial boards, and your community at large.

Once you've established the foundation for your messaging, you'll start spreading posts far and wide. What will you do if you receive a less than favorable response to one of your posts? Time for the shouty caps: DO NOT HANDLE YOUR ORGANIZATION'S RESPONSE ON YOUR OWN. Work with your social media strategy team and your supervisor to craft an appropriate response, or maybe you will decide together that your organization will not respond at all. There is no rule stating that every @ directed at your organization requires a reply. You have a team on your side. Don't be afraid to use their expertise combined with your own.

Personal Challenges

To me, it's a little scarier when I get a less-than-positive response on my individual professional social media. The only person to consult with is me, but it's stressful because my professional reputation is on the line. That's when I reach out to trusted peers for their input and suggestions on how to handle tough situations.

The Dreaded Troll

I won't sugarcoat this one. And I hope you never have this experience. There are some people out there who hide behind their screens and harass social media accounts. These so-called trolls do not offer constructive criticism or opposition. Instead, their main objective is to belittle and debilitate individuals and organizations. Please do not engage with these individuals, and here's where we get to the title of this article. It is okay to hit that unfollow button! You can even go one step further and block accounts. Do not feed these online bullies an ounce of attention by engaging in any way.

It Takes a Village!

I make it a point to watch out for my neighbors, my colleagues, friends, and family in the real world. I do the same when it comes to social media. I reach out to contacts independently to my network to alert them to any concerns, and I am always gratified when others do the same for me.

I Give You Permission to Unfollow!

It really is okay to hit that unfollow button. You can unfollow literally or metaphorically, but my point is that you do not need to engage with anyone who is toxic, inappropriate, negative, or makes you feel uncomfortable. This concept was hard for me to understand when I was young and wanted to please everyone, well before social media was even a thing. If someone isn't nice or makes you feel some kind of negative way, you don't have to remain connected. The same goes for your organizational accounts. You are not obliged to follow anyone. Communicate often and clearly with your strategy team so you are all working together to follow accounts that are meaningful to the conversation.

Remember what I always tell you: It's free to be nice and to comb your hair. And if you're putting your own best voice or your organization's best voice out there, you will.

Recent Updates to the CSE White Paper: Guidelines for Editor in Chief and Guest Editors of Supplements, Special Series, or Calls for Papers

Leonard Jack, Jr, PhD, MSc

The Council of Science Editors' (CSE) White Paper on Promoting Integrity in Scientific Journal Publications was first published in 2006, and the full document was updated in 2009 and again in 2012. In 2018, the CSE Editorial Policy Committee (EPC) began making updates on a rolling basis as new sections were added or existing sections updated to reflect new information or best practices. This updated method for amending the document allows for more rapid dissemination of its contents so that they can be quickly put into practice in journal operations. In this column, the author advises the readership of a recent update that provides guidance on the important roles of guest editors and editors in chief in facilitating the creation of supplements, special series, or calls for papers. The full White Paper is available at https://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-on-publication-ethics/.

Ensuring Scientific Integrity in Supplements and Special Series

The range of evolving and timely topics positions journals to publish relevant research content to meet the needs of their readers. Frequently, journals may decide to publish supplements, special series, or calls for papers to highlight research, advances, recommendations, and guidelines. Journals may solicit guest editors (GEs) with specific areas of expertise to facilitate the peer-review process, lend credibility to the overall effort, and ensure that timelines are met. Individuals identified to serve as GEs should reflect the journal's commitment to upholding the highest editorial standards and scientific integrity (see e.g., https://publicationethics.org). These new CSE guidelines on the roles and responsibilities of the editor in chief (EIC) and GEs of supplements, special series, or calls for papers were developed to meet the needs of journals, societies, and publishers for either for-profit or nonprofit entities. The guidelines identify standards for the roles and responsibilities of the EIC and GEs, with the goals of establishing clear boundaries, reducing miscommunications, avoiding conflicts of interests, meeting timelines, and generating rigorous peer-reviewed content that readers can trust. This commentary provides a brief overview of new content regarding responsibilities for the EIC and GEs of supplements, special series, and calls for papers (Figure) that will be added to the CSE White Paper on Promoting Integrity in Scientific Journal Publications.

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The findings and conclusions in this report are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Opinions expressed are those of the authors and do not necessarily reflect the opinions or policies of the Council of Science Editors or the Editorial Board of Science Editor.

Role of the EIC

The EIC serves as the primary contact on supplements, special series, and calls for papers internally and externally to individuals, groups, networks, and organizations. Hence, the EIC is responsible for ensuring the rigorous review of material to maintain its scientific integrity, and to this end, the new guidelines detail several of the EIC's responsibilities. The EIC has the final responsibility of

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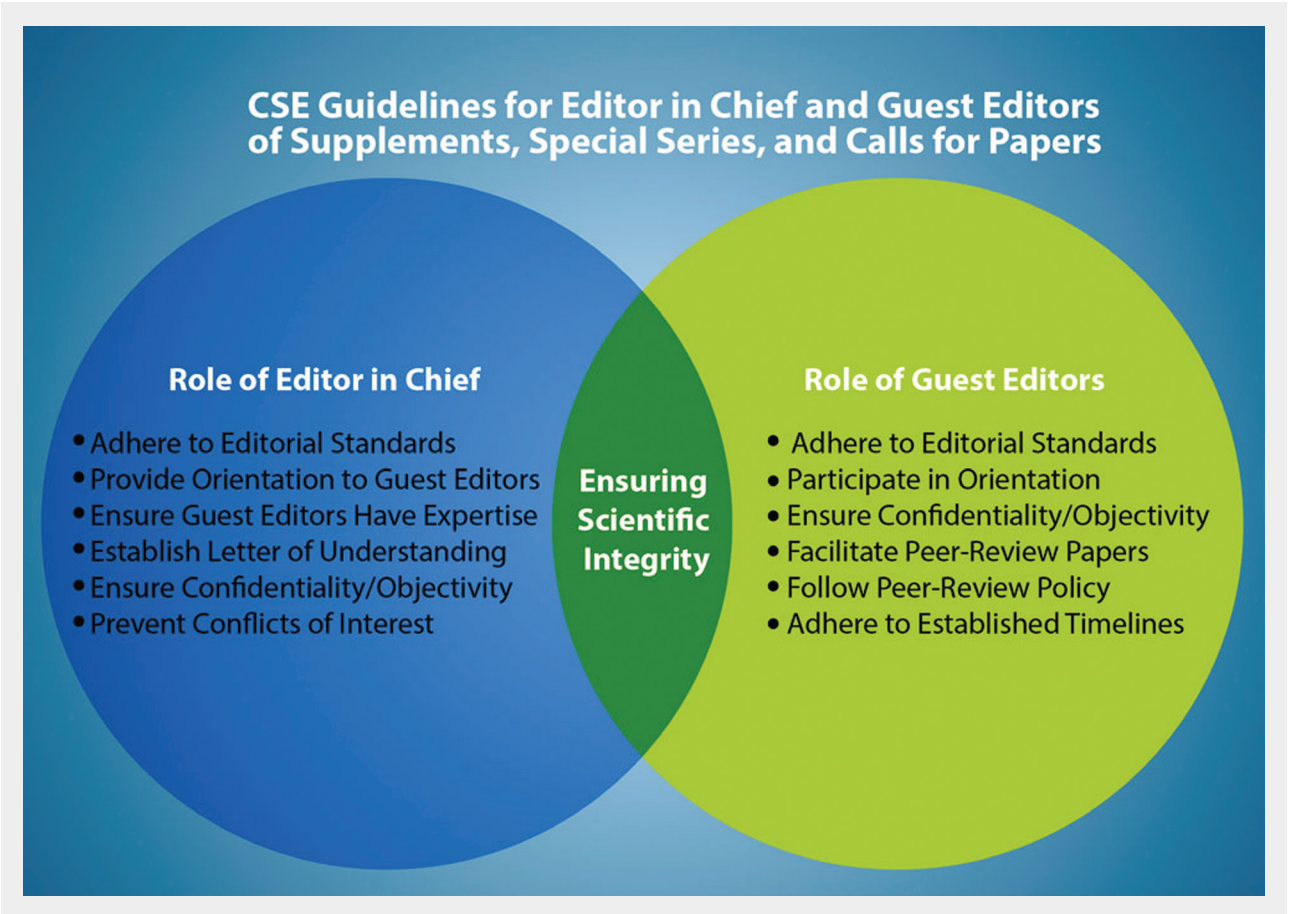

Figure. CSE guidelines for EIC and GEs.

ensuring that GEs have the necessary expertise in the content areas of focus whether they are current or former editorial board members, associate editors, or established experts who have not served in a previous capacity with the journal. Expectations among the EIC and GEs can become confusing without an established document clarifying expectations, roles, and responsibilities. These guidelines recommend that the journal establish a letter of understanding or memorandum of agreement with GEs that details roles and responsibilities for the EIC and GEs, publication tasks and timelines, key deliverables, compensation (if appropriate), and procedures for dealing with conflicts of interest. The selected GEs may have disclosures that should be identified upfront to ensure that the journal's credibility remains the highest priority. Therefore, the guidelines recommend that conflicts of interest be disclosed and appropriately dealt with throughout the service of any and all GEs.

Whether GEs have previously served in this capacity or not, the new guidelines suggest that the EIC or editorial office provide an orientation to GEs to specify their respective roles; how to deal with conflicts of interest; the timeline for generating the supplement, special series, or call for papers; and the use of the journal's manuscript management system, if necessary. This orientation allows for clarifying questions to ensure that the confidentiality and objectivity of the peer-review and decision-making process used by GEs, peer reviewers, and journal staff are fully understood prior to implementation. It will be the EIC's responsibility to provide overall coordination and final decision making of the publication to ensure consistency with the journal's processes and editorial standards throughout all stages of publication.

Role of GEs

Serving as a GE is an honor and conveys that the individual selected has the necessary experience and credibility to help a journal publish rigorous peer-reviewed content. The GE must also adhere to fundamental responsibilities that result in the smooth execution of generating a

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supplement, special series, or call for papers. GEs should be encouraged to discuss their roles and responsibilities and those of the EIC. The orientation allows GEs to ask questions, discuss ways to best communicate, review and revise timelines, as well as discuss how to handle conflicts of interest.

GEs must declare potential conflicts of interest to the EIC to avoid any appearance of bias or unfairness prior to initiating their role and during and up to publication. The new guidelines strongly suggest that GEs disclose all financial relationships related to the content and focus of the material, which is particularly important if the supplement, special series, or call for papers is funded by an entity from which the GE received monetary payments for services rendered (e.g., consultant, contractor, content expert). GEs should avoid facilitating peer review of material they coauthored, and if they have submitted manuscripts for consideration in the proposed material, they must recuse themselves from all handling of such manuscripts. In addition, the journal should disclose to the public how such papers were handled if they are accepted for publication.

GEs should only consider material that fits with the journal's vision and mission, its assessment processes and editorial standards, and the focus of the supplement. If charged with the responsibility, GEs should assign manuscripts and follow the journal's peer-review policy. In this instance, they may have the responsibility of making decision recommendations about acceptance to the EIC or make the final decision based on peer-review reports. They should adhere to established timelines and consult with the EIC before granting extensions to authors. Generating supplements and special series involves several interrelated steps that are time sensitive and resource intensive because of the overarching goal of generating content-rich, innovative, and timely material. Therefore, GEs must work closely with the EIC, contributing authors, and journal staff to execute tasks and generate deliverables to meet established timelines.

Conclusion

There are major themes reflected in this initial set of guidelines that will likely continue to evolve: adhering to editorial standards, providing an orientation to GEs, ensuring that GEs have the necessary expertise, establishing a letter of understanding, ensuring confidentiality and objectivity, avoiding conflicts of interest, and adhering to established timelines. These new guidelines were developed with the goal of providing journals with identified roles and responsibilities for the EIC and GEs that can be modified and expanded upon and will vary in their application based on a journal's editorial policies and procedures.

Acknowledgment

I thank the members of the EPC for their assistance with these updates.

Gatherings of an Infovore*: Digital Pollution

Barbara Meyers Ford

Add Another Type of Pollution to the List: *Digital*

Pollution, as defined in the Merriam-Webster online dictionary, is "the action of polluting especially by environmental contamination with man-made waste" and has been a constant in the world ever since humans began living in groups. Anthropologists have found human waste among the ruins of ancient settlements. The word pollution took over from the term industrial waste in the late 19th century, and the different types of pollution were identified throughout the 20th century with the 3 major types: air, land, and water, joined by noise, light, radioactive, thermal, and plastic pollution. Now in the 21st century, we are beginning to recognize that advances in technology have brought about a new type of pollution: digital pollution (sometimes also called information pollution or data pollution or e-waste).

The literature describing digital pollution and various ways to measure its impacts is quite fragmented in type of publication and currency/depth of verified data from blog posts to white papers and articles in magazines/newspapers to those in peer-reviewed books and journals. Presented here is a cross-section of such resources to set you on the path of assessing whether now is the time for your organization to be concerned with the impact of its digital pollution. If interested, I suggest you contact Cambridge University Press. In 2021, the Press, along with Netflix and BT, began working with DIMPACT. DIMPACT is a pioneering initiative launched in 2019 by Carnstone, media companies, and researchers at the University of Bristol to help map and manage carbon impacts of digital information (https://dimpact.org/news).

BARBARA MEYERS FORD has retired after a 45-year career in scholarly communications working with companies, associations/societies, and university presses in the areas of publishing, and research. If interested in connecting, find her at www.linkedin.com/in/barbarameyersford and mention that you are a reader of *Science Editor*.

**A person who indulges in and desires information gathering and interpretation. The term was introduced in 2006 by neuroscientists Irving Biederman and Edward Vessel.*

"Digital is physical. Digital is not green. Digital costs the Earth. Every time I download an email I contribute to global warming. Every time I tweet, do a search, check a webpage, I create pollution. Digital is physical. Those data centers are not in the Cloud. They're on land in massive physical buildings packed full of computers hungry for energy. It seems invisible. It seems cheap and free. It's not. Digital costs the Earth.

One of the most difficult challenges with digital is to truly grasp what it is, its form, its impact on the physical world. I want to help give you a feel for digital. I'm going to analyze how many trees would need to be planted to offset a particular digital activity. For example:

- *1.6 billion trees would have to be planted to offset the pollution caused by email spam.*
- *1.5 billion trees would need to be planted to deal with annual e-commerce returns in the US alone.*
- *231 million trees would need to be planted to deal with the pollution caused as a result of the data US citizens consumed in 2019.*
- *16 million trees would need to be planted to offset the pollution caused by the estimated 1.9 trillion yearly searches on Google."*

—Excerpt from *World Wide Waste* by Gerry McGovern

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COVID-19: The New Reality

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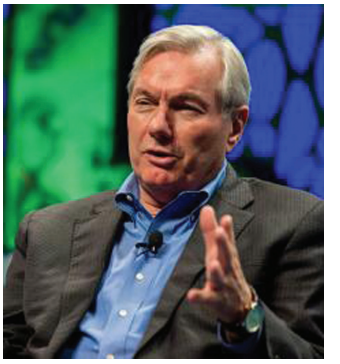
REPORTER:
Peter J Olson, ELS
JAMA Network



Let's face it: We all need a good, old-fashioned reality check at one point or another, and this has never been more true than during the COVID-19 pandemic. In his keynote address on May 4, 2021, at the CSE 2021 Virtual Annual Meeting, Dr Michael Osterholm provided attendees with a frank and fact-laden overview of the current state of the pandemic as of May 2021 that was interwoven with his candid appraisals of the uncharted road ahead.

Osterholm's candor was manifest not only in the hard truths about the pandemic and the virus behind it, but also in his assertions about our ability—or lack thereof—to predict or control our fate. As is often the case, any discussion about the future is rooted in the events of the past, and this is where Osterholm started. Historically, our preparation for pandemics caused by respiratory-transmitted pathogens has been informed largely by our knowledge of the influenza virus and the many influenza pandemics that have transpired within the last century. Citing the 2009 pandemic caused by the H1N1 strain of the influenza virus, which emerged in Mexico and quickly spread to North America, Osterholm noted that the sharp surges and precipitous drops in H1N1 case numbers occurred without any human mitigation, and that the vaccine that was developed ultimately had little influence on the pandemic's end. Inexplicable as it was, this phenomenon shaped a scientific model that suggested that viral epidemics, given time, would eventually subside on their own.

Enter SARS-CoV-2.

As with previous viruses, the emergence of SARS-CoV-2 in March 2020 in the Pacific Northwest initially led to sporadic surges of infections throughout the United States. Due to an absence of testing methods and "challenges with the CDC," Osterholm opined that the country was "flying blind" until April, when case numbers surged in several major cities, though much of the rest of the country had been spared. The numbers increased dramatically after Memorial Day, then dropped quickly after July, enough so that by September it seemed as though the pandemic might be on its way out. However, despite a comparatively quiet October and November—including in Florida, a state that had reopened completely—the upper Midwest saw a surge that accounted for a large percentage of the 200,000 cases per day in the United States in mid-November. A subsequent drop in case numbers was short-lived; cases surged again across the country by mid-December, primarily in the South, and by January 2021 the entire country was at 300,000 cases per day.

Although these unpredictable patterns of SARS-CoV-2 transmission resemble those of previous pandemics, and although pre-vaccine declines in COVID-19 case numbers have been attributed by many to interventive public health measures (e.g., masking, social distancing, and shutdowns), Osterholm noted that the pathology of coronaviruses is still largely unknown. At the time of his address, other parts of the world had been seeing drops and surges in case numbers that remain unexplained. Iran experienced a fourth major surge in cases. The United Kingdom saw a surge that would have equated to 195,000 hospitalizations per day in the United States. India had a dramatic drop in case numbers that lasted for months, yet their numbers eventually skyrocketed to 400,000 cases per day. And Sweden, once a model of successful COVID-19 response, found itself among the top 5 countries for case numbers per capita by February 2021.

These elusive answers from the past have given way to new, confounding factors at present. Perhaps the most significant of these factors is the emergence of what Osterholm called "variants of concern": viruses that are more infectious, can cause more severe disease, and have a heightened ability to avoid different forms of immunoprotection, including vaccines. These inherent challenges notwithstanding, Osterholm raised the additional concern that our response to these variants is hampered by a limited global capacity to manufacture vaccines for low- and middle-income countries, leading him to conclude that "we're going to be at the mercy of these variants for some time to come." Another conundrum comes in the form of decreased vaccination rates in the midst of new surges of case numbers. When the vaccines were first introduced in the United States, Osterholm observed that there were

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"more arms than needles" due to the initial demand; yet despite the distribution of 220 million doses within the first 100 days of the Biden administration, the country eventually reached a point when there were "more needles than arms." Finally, the concept of herd immunity, though popular, was dismissed by Osterholm as an unattainable distraction. To attain herd immunity against a highly infectious virus such as SARS-CoV-2 and its variants, the percentage of vaccinated individuals must be at 92% or more before transmission rates can be slowed—and even if this percentage is achieved, the protected individuals must be well integrated within the general population. Citing a series of measles outbreaks in his home state of Minnesota, where 93% of the population is vaccinated against this highly infectious disease, Osterholm noted that large segments of the remaining 7% lived in similar areas of the state and had similar social circles—a virtual petri dish for outbreaks. Experiences such as this have bolstered his conviction that vaccination remains the key to containing virus transmission.

The reality check continued well into the Q&A session that followed Osterholm's talk. Certain questions elicited succinct and sanguine responses, such as "When might a vaccine be available for children aged 6 months and up?" (hopefully by early- to mid-fall 2021) and "Is there a national communications campaign to combat vaccine hesitancy?" (yes, one that is focused on specific populations such as essential workers and certain racial and ethnic groups). Yet many answers were rife with caution and uncertainty. When asked how the pediatric population factored into a scenario of herd immunity, Osterholm reiterated his skepticism about this concept, noting that the effectiveness (as opposed to the efficacy) of the vaccine was still untested and that the vaccination rate among adults was still too low for herd immunity to be attainable. In response to an inquiry about the hold placed on the Johnson & Johnson vaccine due to associated blood clots in the brain, he indicated that "time will tell" whether it was the right decision while lamenting that the incident only acted as fuel for the fire of vaccine hesitancy—a topic that dominated much of the rest of the discussion.

"How do we get more people vaccinated at this point?" Osterholm suggested that anyone who provided a satisfactory answer to this question deserved a Nobel Peace Prize. One of the greatest challenges, he said, is educating the general public about how the vaccines were created, how they work, and how safe they are. In addition, the myriad populations of people expressing reluctance, each with their own circumstances and complexities, constitute a reality that renders global messaging less effective; this reality necessitates a more tailored approach of hearing people's individual stories to provide contextual reassurance that the vaccine is safe for them. Faced with questions about navigating vaccine hesitancy among friends and conversations with skeptics, Osterholm continued his straight talk; a quip about having "fewer friends these days" was delivered with a laugh, but he quickly pivoted to the seriousness of current affairs. Recounting a conversation with a history professor who had likened the divisiveness over vaccination to familial rifts that occurred during the Civil War, Osterholm encouraged vigilance in broadcasting the safety and viability of vaccines while conceding that "some people just aren't going to listen." For those who will listen to reason, though, he advised against the tactic of delivering unyielding lectures. Bringing people together, meeting them where they're at, and finding ways to help them see and understand the value of getting vaccinated—this, he said, is our best hope for success in the vaccination endeavor.

And when will it be safe for societies such as CSE to hold in-person conferences again? "Give me 3 months," Osterholm chuckled, saying that the feasibility and practicality of large group assemblies will depend entirely on our ability to reduce the surges of case numbers in this country. That said, he also asserted that a "psychology of the return" must be considered, suggesting that societies may need to reevaluate and reimagine the dynamics of future gatherings in the wake of the pandemic.

Yet amidst the uncertainties, there are securities. With this in mind, Osterholm concluded his talk with an apt metaphor. As a firefighter, he owns a suit that protects him from fire 90%–95% of the time. But is he walking into a burning building every day? Of course not. Yet the firefighting suit is a source of protection should he ever find himself exposed to a wall of flame. Such is the way with the COVID-19 vaccines. They are a critical protective measure that will help us return to some semblance of normal—and although Osterholm acknowledged that there is no reliable road map for the return, he assured his audience that vaccination is the vehicle that will get us there.

Managing Science Communication in a Post-Truth Era

SPEAKER:
Jessica Malaty Rivera
Science Communication Lead for the COVID Tracking Project

REPORTER:
El-shama Q.A Nwoko
African Journal of Laboratory Medicine

Plenary speaker Jessica Malaty Rivera is an Infectious Disease Epidemiologist and Science Communicator with 15 years of experience in disease surveillance research, public policy, and vaccine advocacy. She began her presentation by giving a background of her education and experience, then went on to share some best practices she has picked up through the years, which were implemented in the COVID Tracking Project. She concluded by sharing the aim, language, and science of science communication.

Background

Malaty Rivera received her Master of Science degree in Emerging and Infectious Diseases from Georgetown University 10 years ago. After that time, she worked at the now defunded Division of Integrated Biodefence at Georgetown. The Division focused on biosurveillance, serving as an "infectious disease Weather Channel" that identified indicators and warnings of emerging animal and human epidemics and pandemics. The Division translated information from over 50 different languages into reports and algorithms for predicting the severity of impending outbreaks. Using this approach, the Division detected the 2009 H1N1 Pandemic. This experience, Malaty Rivera says, prepared her for her role as a science communicator. Sadly, she noted that the Division could not detect the COVID-19 pandemic because it was devalued and ultimately defunded. She reemphasized the role of biosurveillance in pandemic preparedness and stated its current lacking hugely contributed to the COVID-19 pandemic unpreparedness as there would have been some warning indicators in late 2019.

Science Communication Best Practices

The COVID Tracking Project was started by journalists seeking a uniform place to obtain data (hospitalization and testing data) that at the time did not exist. They collected data from all 56 U.S. states and territories. However, because there were no federal standards for reporting or writing information related to COVID-19, this led to patchwork communication; this was when Malaty Rivera joined the project as the science communication lead.

The COVID Tracking Project collected and published the most complete COVID data from state, territorial, and federal dashboards for 365 days (March 7, 2020–March 7, 2021). Data collected consisted of testing, hospitalization, and health outcomes data as well as race and ethnicity and long-term care COVID data. Malaty Rivera shared some science communication best practices implemented in the COVID Tracking Project.

Data Source

She emphasized the importance of authentic data sources. Buttressing this, she explained that the COVID Tracker data were obtained from official sources: public, state, and territorial.

Data Presentation

Data should be appropriately curated, annotated with definitions, and caveated. According to her, the COVID Tracking data were manually curated to avoid the "perils of automation." Thus, the data could be said to be extremely accurate. Also, all data presented had annotations, the definition of nuances, and caveats for anomalies. To achieve this, the COVID Tracking project had teams dedicated to annotations, the definition of terms, and the explanation of anomalies.

Reporting Priorities

Science communication should be accessible and reproducible. The COVID Tracking reports were fully accessible, mostly text-based, and written in simple English to improve readability. Also, the performance of the website was lean for low-end devices and internet connectivity. And most importantly, the team aimed for transparency. Disclaimers were always included whenever necessary; data were downloadable as .csv files and were not behind a paywall.

Data Reporting Habits

When reporting data, it is good practice to be cautious. The team did not presume to be a public health authority but strived to build understanding and trust. To further this goal, the graphs were rich with annotations and disclaimers (Figure).

Training the Audience to Understand Data and Avoid Misinterpretations

Malaty Rivera noted the relevance of training the public to understand the data as well as how best to look at data to avoid misunderstanding. She summarized the steps with the 6 points below:

1. Understand dating schemes: The COVID Tracking Project always explained in their tweets and blogs that today's cases were people exposed a week or two ago

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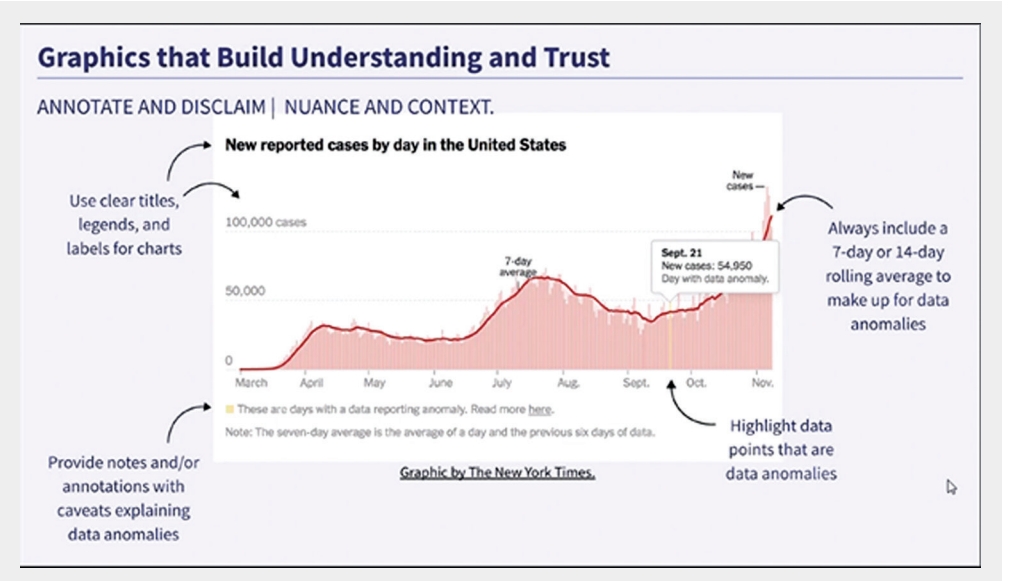

Figure. Graphics that build understanding and trust.

and often pointed readers to rolling week averages. Also, they had caveats for data lags to avoid a misunderstanding of a surge. This trained their readers to look deeper into the data to determine if the data was current or historical.

2. Study data definitions: Malaty Rivera advised that when presenting data, it is important to include metric definitions. This, she said, will aid understanding and interpretation of each metric and ensure 'same metric' comparisons. For instance, the "test positivity" metric is influenced by varying factors, and the inclusion of these factors varied across the states. Hence, the ban of movement between states based on varying definitions of "test positivity" was one bad take on data based on a poor understanding of data metrics.
3. Look for confounding factors.
4. Use established relationships between metrics to guide interpretation: The logical fallacy of correlation and causation is a trap many fall into when dealing with limited characters for posting tweets/headlines. You get more tweets when you put two strong headings together but this can lead to a logical fallacy, which requires more research and convincing to clear up and correct.
5. Be conservative about what can be known: It is acceptable to say "we do not know" or "data has not proven it yet" instead of making quick conclusions, predictions, or prescriptions.
6. Be faithful, not tactical: Be predictable and reliable, e.g., providing data daily without fail and erring on the side of caution.
7. Science communication: Aim, language, and science.

In conclusion, Malaty Rivera explained the languages required for fluency in science communication and the science of science communication. These languages include those of scientists, nonscientists, and pseudoscientists. She also emphasized the importance of emotional intelligence, which requires empathy and cultural competence, particularly in the vaccine space. While the ethos for vaccine advocacy is great, making the vaccine stance binary is not because it devalues legitimate reasons for vaccine hesitancy, such as medical trauma. Empathy and repetition are necessary for combating misinformation.

Malaty Rivera emphasised that the goals of science communication are to increase science literacy, improve data comprehension, debunk misinformation and disinformation, demystify science and research and prevent (or "pre-bunk") logical fallacies. Thus, it is important to know when to say "I do not know," to seek consensus and reproducibility, to remember the "science" audience is not monolithic, and to collaborate with other experts.

Malaty Rivera concluded by saying that, "if science is not communicated in the correct language, it is either going to harm or not be helpful at all."

Fostering Diversity and Inclusion for Editorial Boards and Publishing Leadership

MODERATOR:
Brit Stamey
J&J Editorial
Cary, North Carolina

SPEAKERS:
Amy McPherson
Botanical Society of America
Saint Louis, Missouri

Jessica Slater
Science/AAAS
Baltimore, Maryland

Frances E Likis
Journal of Midwifery & Women's Health
Nashville, Tennessee

Celia Braithwait
Wolters Kluwer
Baltimore, Maryland

REPORTER:
Janaynne Carvalho do Amaral
Federal University of Rio de Janeiro
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In times of open science, it is fundamental to discuss inclusion, equity, and diversity in scientific publishing, because we have many problems to solve inside the scientific community before being against or in favor of this movement, or even to help in its development.

This session, moderated by Brit Stamey, was anchored by the perspectives of 4 different speakers discussing and encouraging societies and journals to take ownership of diversity, equity, and inclusion (DEI) initiatives.

Amy McPherson, Director of Publications for the Botanical Society of America, introduced the session by presenting the society's publications,[1] the Annual Botany Conference,[2] and the education program, Planting Science,[3] all of which are involved with DEI issues. The journals have diverse editorial boards with associate editors from countries other than the United States and almost the same number of men and women, as well as an Early Career Advisory Board. In addition, they have an open call for self-nominations to include interested members of the society, and provide links to associate editors to help them expand their pool of reviewers. The PLANTS Grants program[4] engages students from underrepresented groups to increase diversity in the botanical scientific community. The students receive funding to attend the Annual Botany Conference, workshops, and networking events, and also receive mentoring from graduate students, postdocs, and faculty. The Botanical Society of America has exclusive events for their LGBTQ community, and they are learning how to support Black members. McPherson stressed that it is not easy to be inclusive because we have to expand our bubbles and educate ourselves to change an entire system and structure that historically excluded people from science. To change this reality, she suggests that professional societies work together on DEI issues to make society, scholarship, and scientific publication more representative.

Jessica Slater, Executive Assistant to the *Science* Editor-in-Chief, started her presentation with a strong statement: "Science has a diversity and inclusion problem." She stressed that it is our duty to make science more inclusive and equitable, taking diversity as a starting point. However, we cannot do that without being transparent. We must start by acknowledging and correcting the biases in scientific publishing against women, non-Western countries, developing nations, race, and ethnicity. Around 5 y ago, *Science* started to discuss their need to improve gender equality with authors and referees. As a result, they asked their Board of Reviewing Editors to appoint at least one female referee for every paper submitted to the journal. In 2018, they also began to collect demographic information from reviewers and authors that submitted reports and research articles to *Science*. Research data showed the predominance of White men in publishing and peer review at the journal. Slater said that *Science* received positive comments on this data collection, but it was pointed out that there was a need to include variables such as sexual orientation and disability status. Collecting demographic data is helping *Science* editors build a list of changes that need to be made to reach their goal of representing all the members of the existing and future scientific community.

Celia Braithwait presented a set of activities developed to promote inclusion for Wolters Kluwer and with its customers, as well as some DEI tools. She showed 2 surveys that collected data on racial, ethnicity, diversity, and gender in scientific publishing and the publishing industry. The first one[5] revealed the prevailing presence of White people and men in editorial boards, peer review, and authorship of manuscripts. The second one[6] showed the predominance of White, cis-gendered women, straight, and nondisabled people in the publishing industry. Wolters Kluwer is working to change this scenario by seeking events and webinars for its editorial boards, editors, and society partners concerning DEI in publishing. They are offering the PaperPal Preflight author

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service that uses artificial intelligence to help authors identify grammar errors in their manuscripts. This free tool enables editors and journals to reduce cost per submission and time to publication. Publishers can also select papers from regions underrepresented or have a guest editor representing that region in its journals. Among the DEI tools recommended by Braithwait are the chapter "Bias-Free Language" of the *Publication Manual of the American Psychological Association*,[7] the glossary *The Language of Inclusion*,[8] the *Antiracism Toolkit for Allies*,[9] the Microsoft Word tool to check for inclusive language, and Project Impact,[10] dedicated to reducing healthcare bias in skin of color.

Frances Likis, Editor-in-Chief of the *Journal of Midwifery & Women's Health* (*JMWH*), shared some tips to promote DEI initiatives at their journals. She highlighted that it is a complex task involving time, effort, dedication, lifelong learning, flexibility, and humility.

The first tip is to be transparent, publishing content about this topic and providing instructions and inclusive language guides for authors. For her, inclusive language in journals is an important aspect of DEI work, and must be respectful, accurate, unbiased, inclusive, and consistent with preferences of individuals and communities being discussed. She mentioned an editorial she had written[11] and pointed out the existence of several inclusive language guides that others can use.

The second tip is to assess the context and current state of your journal, society, and discipline. In addition, we should consider areas of diversity and inclusion, such as age, ethnicity, gender and gender identity, geographic location, professional career, and race.

The third tip is to engage your editorial board. To evaluate your editorial board in terms of diversity and inclusion, she suggests the following questions: Are the members diverse? How are members recruited? Are the members committed to fostering DEI?

The last tip is to solicit relevant content on DEI issues and promote that content. For example, she mentions calls for papers discussing health equity and asking in the peer review form: "Is this manuscript free of stereotypes or bias, and sensitive to issues of diversity, inclusion, and equity?"

A recent change to *JMWH*'s cover was another initiative toward fostering diversity and inclusion (Figure). The first cover, created in 1979, depicts a woman with her baby. However, the cover adopted in 2019 represents people instead of just pregnancy, and is, therefore, more gender neutral, explained Likis.

Figure. Updated cover for *Journal of Midwifery & Women's Health*.

The speakers showed us that fostering diversity and inclusion in our editorial boards is more than being open to differences and talking about them. It requires systematic actions through editorial boards and/or institutions, a willingness to learn and listen to people with different realities, culture, and ways of thinking, trajectories, or even those excluded from science or those who are part of the scientific community and do not feel represented. In this DEI journey, we are not free of committing mistakes, but it is fundamental to find and recognize them to build a science more equitable and without biases. After all, science is a common good.

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Help Me Help You: Making the Most of Your Production Vendor Relationship

MODERATOR:
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American Society of Civil Engineers
Reston, Virginia

SPEAKERS:
Theresa Fucito
AIP Publishing
Melville, New York

Byron Laws
Nova Techset – Katalyst

Susan D Willner
American Society of Nephrology
Arlington, Virginia

REPORTER:
Samantha Bruno Fuller
American Association for the Advancement of Science
Washington, DC

Production vendors play a key role in the success of many publishers and their journals. They provide services and technologies that can greatly increase the quality and reach of a publication. Introducing vendors into the equation of publication management is common but requires management of the vendor relationship. This is not always easy, and this session explored the relationship from both the vendor and customer perspectives, providing guidance on how to improve the relationship and thus, your publication.

Theresa Fucito, Director, Content Operations at AIP Publishing, started off the session from the customer perspective. She spoke about AIP's recent launch of a new books program and how they were reliant on the production vendor to make it a success. She outlined tips for managing this relationship, starting with vendor selection. Customers need to have a clear understanding of what priorities and attributes they value and choose a vendor that echoes those. Once you enter into a vendor relationship, trust needs to be built. The vendor–client relationship should be a partnership with constant communication to set expectations, ensuring everyone is on the same page, and monitoring the progress of projects (Figure).

A feedback loop should be established; however, keep in mind that feedback in the form of email should be constructive. Be professional in your correspondence and be specific but concise in your description of any issues. Positive feedback and acknowledgement of success are a

Figure. Vendor relationship management.

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sure way to improve the relationship. So, don't reserve your vendor communication solely for problems.

Byron Laws, Sales Director, Americas at Nova Techset – Katalyst continued the session from the viewpoint of the vendor. The services his company provides are technology-based, and Byron serves in an intermediary role between author, publisher, and vendor. He acts as a mediator, advocate, troubleshooter, and cultural interpreter, often coaching his colleagues to acknowledge errors. This provides customers with transparency and confidence in the vendor.

Communication and transparency are crucial for a vendor relationship to flourish. Vendors need to be clear about what they can offer a customer so that there are no surprises once a contract is signed and projects commence. Customers also need to be very clear and consistent about what they want to help vendors address and anticipate their needs. On both sides, there should be a willingness to compromise where appropriate as well. When it comes to feedback, don't put off having difficult conversations. Be upfront about issues you're noticing so they can be addressed quickly.

When you are researching vendors to see if they are the best fit for your product, consider their previous work. Ask for samples and also for their expertise. Present your problem and ask the vendors for their solution; they may have one you didn't think about before. Customers also need to be mindful that vendors need to make money, and customers should want vendors to be successful because this will help advance their product in the future. We're always looking for the best price but should also keep quality in mind. In most cases, you get what you pay for.

Susan Willner, Publications Manager, American Society of Nephrology, wrapped up the session with more guidance from the customer perspective. She started off her presentation with the sentiment that vendors are an extension of your office. The best way to communicate with them is to have a common language, making sure the terms you use are clearly defined at the onset of your relationship because they could have a different meaning for the vendor. Educate your staff about the vendor and vice versa. Project proposals are never perfect the first time, but you can do things to help. Point to examples of what you want, helping the vendor avoid having to reinvent the wheel. Tell them why you're doing something and what your end goal is. Providing annotated mockups can also be extremely helpful in communicating your needs.

When embarking on a new project, ensure that there aren't too many cooks in the kitchen. A project team should be designated to avoid conflicting feedback and information that could result in an elongated process and errors. Have a clear plan in place with a schedule of deliverables and deadlines. Don't shy away from communicating issues—the sooner they are brought to light, the sooner they can be addressed. If you are open and honest with a vendor, ask them to do the same with you. Don't hesitate to keep asking "what else?" The more questions you ask and have answered, the more likely you will be satisfied with the finished product.

All three presenters had various views and tips, but one theme resonated—communication. In any relationship, communication is of the utmost importance and client–vendor relationships are no different. The presentations had extremely useful advice for improving relationships and ultimately achieving better product implementation and customer satisfaction.

Detour Ahead! Planning for the Expected and Unexpected

MODERATOR:
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SPEAKERS:
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Managing Editor and Publishing Administrator
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Philadelphia, Pennsylvania

Melissa B Schmidt
Director, Journal of Osteopathic Medicine
American Osteopathic Association
Rockledge, Florida, United States

Jessica Rucker
Senior Director, Global Editorial Operations
ACS Publications

REPORTER:
Grace Taylor
Technica Editorial Services
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In a brief introduction, moderator Kelly Hadsell kicked off the session. She reminded the attendees that the scholarly publishing field consists of detours, pivoting, and planning for the expected and unexpected, as the session title indicated. Referring to the COVID-19 pandemic, she said, "If we didn't know that already, I think we've all really learned that in the last 14 months or so." The session was divided into 3 topics: publisher transitions, the transition to fully online business practices, and internal succession planning.

First, Melissa Schmidt of the *Journal of Osteopathic Medicine* shared strategies from her 19 y of experience for finding a new publisher or renewing a contract. She emphasized that although this kind of transition can bring expected and unexpected hiccups, it can also be an exciting process. She said, "It can be an opportunity to press the reset button, and if managed properly, it can give you the tools to streamline your workflow, have better tools for management overall, and can give you the opportunity to fix those pain points that might have been plaguing you before." She suggested planning 18 mo in advance of the estimated publisher transition deadline in order to lay the appropriate groundwork.

According to Schmidt, any type of transition is an exercise in 2 primary things: communication clarity and managing expectations. She encouraged attendees to review their own internal processes and preferences when considering a potential partner. What are some changes that might be deal-breakers or especially difficult? She stated, "We all have a natural tendency to assume that others think like we do and work like we do. After all, how different could editorial and production processes be? The answer is: VERY different." She recommended completing a strengths, weaknesses, opportunities, and threats (SWOT) analysis, which does not have to be shared publicly. An ideal publisher should be kept in mind as a request for proposals is being prepared.

Schmidt also provided several tips for evaluating publishing bids. She suggested including a staff member from the editorial team in the selection process as they will help raise questions and concerns from the lens of the editorial process. She also mentioned that the bid from the publisher should include "soup-to-nuts" descriptions of their publication process, as these will likely be the pain points (such as communication style and frequency, marketing, reporting and metrics, etc.) during the transition. Melissa recommends aiming for a publisher that has the least deviation from a company's current process.

Next, Jill Jackson of *Annals of Internal Medicine*, shared her journal's experience of having to shift gears from in-person work to fully online operations as a result of the COVID-19 pandemic. The change to online operations was a challenging transition for Jill's team as her entire staff usually worked at the office. Like many others, Jackson only expected the change to be temporary. Several issues had to be addressed in order to make the shift to online work feasible and as smooth as possible: 1) Each team member needed to be supplied with a laptop/computer. Did everyone have internet? 2) What tasks needed to be completed at the office? 3) Zoom accounts needed to be purchased for the team. 4) The VPN needed to handle all the remote employees.

While company logistics were being sorted, due to the salience of COVID-19 research, the journal experienced a surge in manuscript submissions. Jackson said, "Our submissions were literally doubling with no end in sight. It was challenging for everyone to keep up, including the editorial staff and the senior editors." However, the flexibility to work from home actually allowed staff to work overtime and keep manuscript acceptances at a prepandemic rate.

According to Jackson, the team took additional steps to keep up with the surge. These included fast tracking COVID-19 submissions and reviewer deadlines, adjusting email templates, adding messaging and alerts for authors on their submission systems, notifying authors of delays/slowness during holiday breaks, and utilizing infectious disease specialists on staff to help triage submissions. Annals received some of their journal's largest number of Twitter mentions to date. In addition, the pandemic led to new online onboarding processes such as buddy systems, and the recording of training sessions proved very helpful.

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Finally, Jessica Rucker of ACS Publications discussed methods for streamlining internal succession planning. She said, "[Succession plans] are not just 'nice to have.' Disaster proofing is more important than ever. Our industry moves really fast." She emphasized that there are positive applications to these plans as they can help you identify gaps in skills that you might have related to recruitment. Rucker recommended that employers should determine whether they need to do external recruitment, or if they already have key talent on their team or in an adjacent team. Internal team members should be coached and supported with their career development.

Rucker then proceeded to break down the steps of the succession planning process (Figure). First, a succession planning team needs to make key decisions about the scope and methodology of their efforts. For example, what positions will be involved, who will be included in planning discussions, and how transparent will results be to staff. Second, "HR housekeeping" should be done, including updating role descriptions and aligning them with organization strategies, objectives, and core competencies. Once those materials are in hand, needs for each position should be defined and job profiles should be created so that potential successors can be identified. Rucker recommended ensuring confidentiality and setting up ground rules for discussions around potential internal successors. Finally, once a succession plan has been created, make sure to clearly document plans and commit to revisiting and updating on a regular basis.

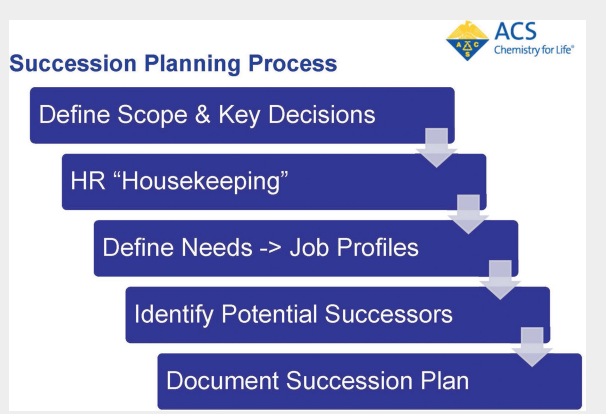

Figure. Succession planning process.

Although the transitions discussed in each presentation were different, they can all be applied to different scenarios for different journals, institutions, etc. The common thread is that change is inevitable, especially during a crisis such as the COVID-19 pandemic. During this session, we were given various helpful tools to adapt to change and learn from these experiences.

Inclusive Author Name Change Policies

MODERATORS:

Irving Rettig
Portland State University
Portland, Oregon

Jessica Rucker
ACS Publications
Washington, DC

SPEAKERS:

Irving Rettig

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Mia Ricci
Wiley
Bloomington, Indiana

Rachel L. Safer
Committee on Publication Ethics
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REPORTER:

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When an author's name has changed, and that author asks to have an already-published article updated to reflect this, how the publisher* responds can have a major impact on that author, both personally and professionally. Name changes occur due to a variety of life events, but restrictive publisher policies stand to do the most harm to transgender and nonbinary authors. This session provided perspectives from two researchers who have been instrumental in creating change across the publishing industry and offered guidance from the Committee on Publication Ethics (COPE) for publishers seeking to implement more inclusive policies. The presenters explained how, in crafting or revising their policies on name changes, publishers have an opportunity to transform the research landscape into a more open and inclusive space.

Jessica Rucker began the session, letting attendees know that the speakers would cover inclusive policies and the practical and philosophical barriers to their implementation. She introduced the session's main moderator, Dr Irving Rettig, who led the initiative by the American Chemical Society (ACS) to overhaul its name change policy and then looked beyond ACS to champion inclusivity in the wider research and publishing environments.

Rettig began by sharing feedback from transgender authors of works published by ACS. Some authors reported not listing papers published under a previous name on their CVs for fear of outing themselves, and some expressed excitement at being able to move forward in their careers with a united academic record thanks to evolving policies. Rettig noted that these policies affect not only transgender authors, but also those whose names have changed due to marriage, divorce, or religious affiliation. ACS rolled out its new policy in 2020 and has since been able to address all of the author requests it has received, including one that involved correcting 106 papers dating back to 1971. ACS has also partnered with EDIS, an organization dedicated to improving diversity, equity, and inclusion in scientific research, in order to reach out to a wider set of publishers, encourage them to adopt more inclusive policies, and assist them with developing workflows for these changes.

Rettig asked Dr Tess Tanenbaum to explain why antiquated name change policies are harmful and invited her to share her experience of attempting to unite her scientific publication record under one name. Tanenbaum, Associate Professor at the University of Calfornia, Irvine, relayed her experience coming out as transgender in 2019, at the same time that she was about to go up for tenure. Her earlier published works had been published under a different name from the one under which she was seeking tenure. California has policies in place to protect marginalized groups from discrimination, but Tanenbaum noted that these measures do not account for implicit bias. She realized that her gender identity would be placed front and center while she was being considered for tenure and that this personal aspect of her life could overshadow her scholarly merits. To keep the focus of the review process strictly on her work, Tanenbaum reached out to 87 publications published by 16 publishers to request that her name be updated. Some publishers readily agreed, while others refused or never responded. Those who refused often cited the "sanctity of the historic record" as a main reason.

Tanenbaum recognized both a serious problem and an opportunity to help others in a similar situation. She reached out to the Association of Computing Machinery (ACM), which had published most of her peer-reviewed work, and discovered that the conversation was already taking place within that organization. Another transgender author had requested to have their name changed in an ACM publication, but that author's request had been terribly mishandled to the point of abuse. Tanenbaum took up the cause, refused to take no for an answer, and ultimately drafted ACM's trans-inclusive name change policy, the first ever publicly issued by a major publisher.

While this was a start, ACM lacked the resources, infrastructure, and staff allocation to execute the changes,

*"Publisher" here will refer to any entity that publishes scientific research, including commercial publishers and societies that self-publish journals.

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rendering the policy little more than a performative gesture. Additionally, conversations with others in the research sphere highlighted the fact that widespread change would never take place without a broad consensus among publishers. Tanenbaum wrote an opinion piece for *Nature* that made an impact among readers and helped her connect with Rettig and ACS.[1] From there she built a Name Change Working Group across disciplines and reached out to EDIS and COPE to kickstart a larger conversation and get publishers thinking about the meaning of names—not just in terms of their utility for citations and tracking purposes, but also the ways in which they reveal information about a person's identity and affect how an individual is perceived.

Tanenbaum expressed a sense of optimism that real change is on the horizon, given the positive response from publishers and the new guidance to be issued by COPE. She noted that she had expected this initiative to take 10+ years to find footing, considering that in many ways, the publishing world remains rooted in outdated print-based systems in which content is largely immutable. She also underscored the patriarchal nature of the problem, suggesting that if men traditionally changed their names to reflect their marital status, mechanisms would have been put in place long ago to update author names in published scholarly works.

Mia Ricci next provided the publisher perspective on name changes and these evolving policies, drawing from her experience at Wiley. The issue arose in response to an author request, then developed into a conversation about how problematic the existing policy was. Ricci, a lead on Wiley's diversity, equity, and inclusion council, asked around the organization and teamed up with a colleague who was dealing with a similar request on drafting a new policy. Ricci's research led her to the ACS policy championed by Rettig and an article in *Medium* co-authored by Rettig, Tanenbaum, and others, which provided a strong argument in favor of inclusive policies that she could cite whenever she was met with resistance.[2] One of the most frequent challenges she received was the assertion that allowing name changes would violate COPE guidelines, but as of this writing, COPE is poised to roll out new guidance in support of permitting name changes.

Ricci said that getting the policy changed took research and self-education. She emphasized the importance of finding like-minded allies when you are trying to enact change at your organization, rather than trying to go it alone. In the months since Wiley's new policy rollout, over 100 corrections have been made.

The final presenter, Rachel Safer, spoke on behalf of COPE in her capacity as a council member and leader of COPE's author name changes working group. Safer previewed COPE's newly developed guidance on name changes and provided insight on how to implement it.

From 2019 to the present, COPE has received a few cases related to name changes, some submitted by publishers who had received author queries and some by authors who had requested name changes and encountered obstacles from publishers. Safer and others began a small working group, first consisting solely of cisgender allies but later expanded to include transgender authors. Two January 2021 COPE publications presented publishers with a way forward. An article by Safer summarized the steps taken by the working group and announced the forthcoming guidance, and a guest editorial by Tanenbaum, Rettig, and several colleagues outlined five guiding principles for publishers and COPE to follow when approaching name changes—accessibility, comprehensiveness, invisibility, expediency and simplicity, and recurrence and maintenance.[3,4] Safer gave a preview of the COPE guidance, designed to protect authors and minimize harm by not asking for reasons or supporting documentation and by putting an emphasis on "silent corrections," i.e., edits not requiring the issuance of a formal correction notice.

A robust Q&A followed the presentations. Attendees were most interested in the logistics of implementation, such as changes to archive content and downstreaming to indexing services, and potential abuses, like authors who might attempt to change their names on retracted papers or publish under someone else's identity. The speakers emphasized that it would be impossible to anticipate and address every contingency with the first iteration of a guidance document and that these recommendations would continue to evolve. All agreed that taking preliminary measures to reduce harm to authors was the more urgent task.

Safer shared that she and members of COPE are currently engaged with a working group at NISO, whose voting members recently approved a working item to develop a recommended practice on name changes in scholarly publications.[5] Those recommendations are expected to address items like archive changes and indexing. Tanenbaum mentioned that ACM is moving toward requiring all authors to provide an ORCID iD, noting that ORCID is a much more reliable identifier than names, reveals no personal details about an author, and serves as a useful way to "outsource" the identity verification process.

In the course of the discussion, the speakers reiterated that publishers should avoid making judgment calls about who merits a name change and should handle all requests expeditiously, staying ever mindful of the trauma that results from continued deadnaming during the time it takes to figure out whether and how to make a change. Tanenbaum, Rettig, and Safer encouraged anyone seeking practical guidance to reach out with questions. The forthcoming

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COPE guidance, built on the work of Tanenbaum, Rettig, and other determined author-activists, should provide ample support to publishers seeking to implement a more inclusive policy, should they encounter resistance.

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Financial Management for the Journals Office

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At the Council of Science Editors' 2021 Annual Meeting, 3 speakers from diverse organizations presented at the virtual session with the intent of providing an introduction to financial models, budgeting, profit and loss statements, and journal health assessment in order to maximize publication success.

Kathleen Gaffney, Consultant at KG Publishing Solutions, kicked off the session with an overview of how to become involved with finances within an organization, even if it means starting small. She noted that one of the most important aspects for starting is understanding your organization's journal goals and strategies. Every journal is unique in its finances; for instance, some journals are mission-driven while others are profit-driven. She went on to explain the difference between self-published societies (in-house publishing operations in which the society collects all revenue and pays all expenses) and contract publishing (in which a society is responsible for editorial content but a publisher collects all revenue and pays all expenses while making some payments to the society). Next, she discussed different journal ownership models for commercial and university publishers, including proprietary, society, society-controlled, and society-affiliated.

Gaffney then introduced various journal publishing business models for obtaining revenue, including traditional, Open Access, and controlled circulation; each of these models has its own types of direct and indirect expenses. In general, if revenue is greater than expenses, the model is profitable; if revenue is less than expenses, the model is not profitable. Her final advice for further understanding the business side of journals, or for moving into a management or publishing role, was to ask a lot of questions, find a financial mentor, get to know the sales team, and learn from the professionals within the scholarly publishing industry.

Next, Erin Landis, Vice President of Publications at the American Gastroenterological Association, gave the perspective of a society that works with a commercial publisher. She began by discussing the importance of enforcing the publisher's financial responsibility. "By reviewing your publisher's financial statements," she noted, "you can hold them accountable, ask questions, and note any discrepancies or concerns." Furthermore, financial statements from the publisher allow for the ability to develop budgets, forecast revenue, identify trends, and compare the success of the journals in your portfolio. She ended with tips for financial fluency, such as *don't* be afraid to ask questions, operate in a silo, think you can't learn, or ignore financial information, but *do* ask questions, engage with experts, educate yourself, and make a habit out of reviewing finances.

The final speaker was Dana Compton, Managing Director and Publisher at the American Society of Civil Engineers, who provided the perspective of a self-published society. "For me," Dana said, "successful budgeting includes understanding what your target is…, looking at data and trends…, and critically reviewing your progress." She noted that budgets are important because they guide decision making for the upcoming year. The kinds of decisions a society must make are dependent on how publications fit within the society. Important questions to consider are what is the publication's role in the society, what are the revenue and return expectations, is the society more heavily focused on mission or profit, and what are the member benefits?

Compton advised that a great starting place for creating a budget is to look at the previous year's budget and analyze how reality shifted from expectations. From there, consider trends, vendor rates and contracts, operating expenses versus development work, and the department or society's strategic plan. She went on to say that successful budgeting entails constant vigilance throughout the year. She ended by remarking that a good relationship with the finance department will help you understand your account codes, accruals, revenue recognition, "invisible" expenses, and more. All of these factors lead to data-driven decision making that contributes to a more reliable and stable budget.

The session concluded with a brief question-and-answer period that touched on budgeting new products and the frequency of transmitting financial information from publishers to societies.

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