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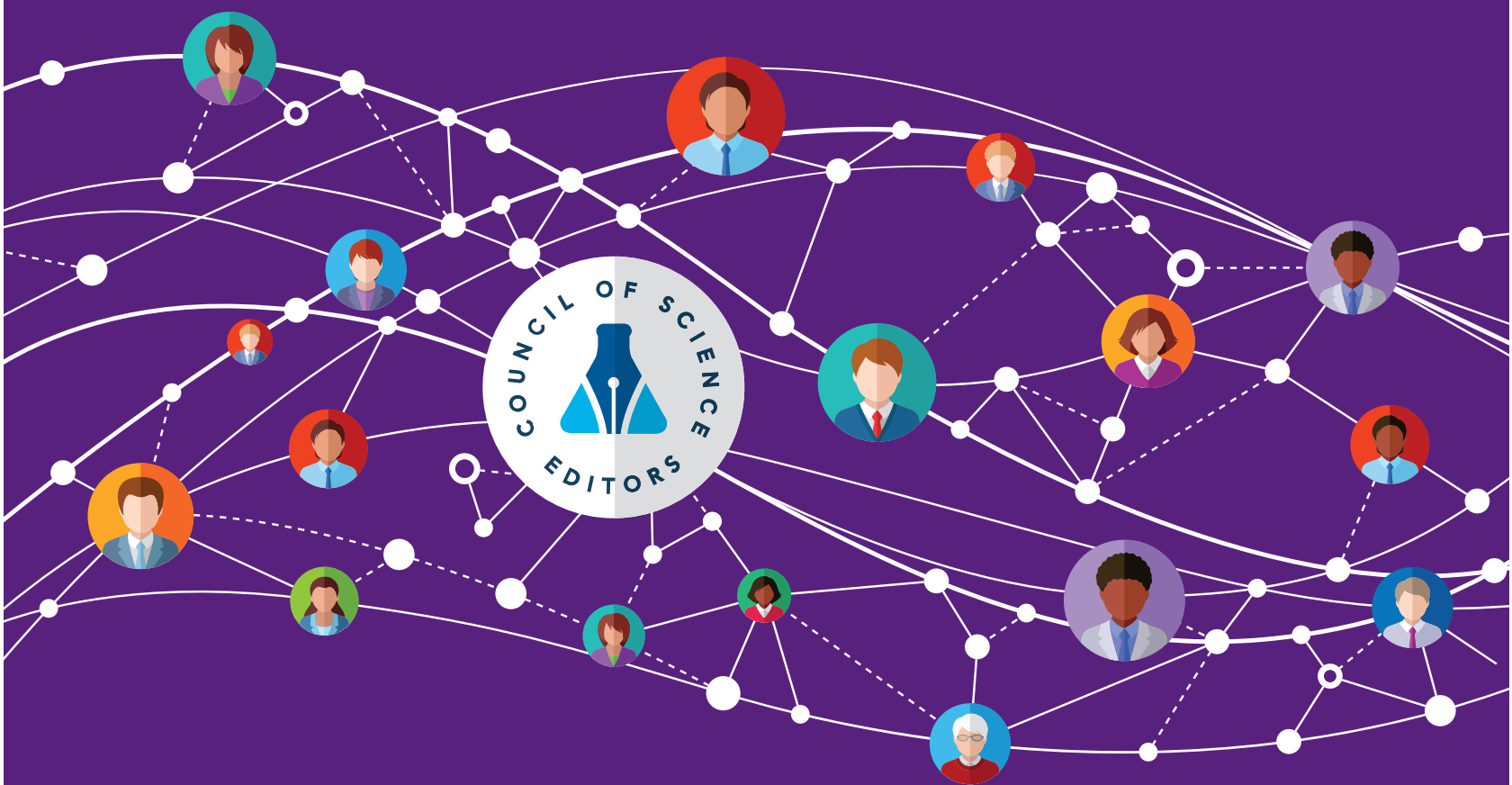
SAVE THE DATE! NOVEMBER 1-2, 2021

Mark your calendars! Join CSE over two half days for live general and concurrent sessions with access to all session recordings, on-demand, after the event. Topics include workflow innovations, utilizing social media, promoting DEI (diversity, equity and inclusion), metrics and impact, professional development, and more! And as always, CSE members receive discounted rates!

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Making Sense of Turbulence by Jonathan Schultz

It's been a tumultuous and confusing year, and the air of looming chaos continues to linger. Nevertheless, even the chaotic can be studied and better understood. The cover of this issue depicts a 3D reconstruction of two vortices colliding as described in research first published in *Science Advances* in 2020. The researchers are working to comprehend the mechanics of turbulence because finding the underlying mechanisms of this seemingly chaotic occurrence can help us study and predict weather, ocean currents, and more. Likewise, the authors of many of the articles in this issue are working to chart a better path forward, building on the lessons and insights of the turbulent year.

The full version of this Viewpoint is available online at https://www.csescienceeditor.org/article/making-sense-of-turbulence

On the cover: A 3D reconstruction of the collision dynamics of two vortices. Credit: Image courtesy of Ryan McKeown/Harvard SEAS via the National Science Foundation Multimedia Gallery (https://www.nsf.gov/news/mmg/mmg_disp.jsp?med_id=186615). For more, see the original research article published in Science Advances: https://advances.sciencemag.org/content/6/9/eaaz2717.

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Mary K Billingsley: Promoting the Healthy Development of Scientific Publishing

Jonathan Schultz

As the Managing Editor and Journal Department Director at the American Academy of Child and Adolescent Psychiatry (AACAP), Mary K Billingsley, ELS, relishes the challenges posed by scientific publishing. Managing the multitude of stakeholders, schedules, and stresses that come with producing a high-quality scientific publication takes a thoughtful, organized, and flexible leader; all skills she hopes to bring to her new role as President of the Council of Science Editors (CSE). At the start of her term, Mary spoke with *Science Editor* about her love of publishing and CSE, her goals for CSE over the coming year, and her hope for a more diverse, equitable, and inclusive scientific publishing enterprise.

Science Editor: How did you get involved in scientific editing and publishing and what career path led you to this place?

Mary Billingsley: I have 2 answers. One is brief: I was an English major in college and afterward I worked briefly in the FDA Biosciences library where I learned about science journals. When it was time to move on, I briefly considered library school but then realized that there were science journal-related jobs, and that my newfound experience was a pathway into publishing. I started at AACAP as an Editorial Coordinator and later served as Assistant Managing Editor and then Managing Editor. I have been there for almost 13 years and have served at every level within the journal office.

My longer answer is that I developed a passion for publication management in high school, although I did not know to call it that at the time. I was an editor for our school literary magazine and was involved in reviewing submissions, but also in production aspects like layout and proofing. I even once hand-delivered the disks containing

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our book to the printer. It did not click until years later that what I had loved about that experience was publication management. When I finally made that connection, I was both surprised and delighted to realize I'd been following that career trajectory all along.

I think there is something there: a pathway to workforce development for scholarly publishing in reaching out to high school or college literary magazines and yearbook clubs and undergrad and graduate English departments to promote scholarly publishing—science publishing in particular—as a career path. English majors can be quick to say, "I want to go into publishing," but for many, publishing is a nebulous idea. It is easy to set your sights on publishing because you love books and reading, but you might not really know what that means. What are the jobs and job tasks? What expertise is required? If someone had said, "Oh, what you're describing is publication management, and by the way, it would really help to take some business classes," I may have adjusted my coursework or looked for opportunities to prepare myself differently for this career. I'm really interested in that angle: how to draw real-world connections between English departments and scholarly publishing in ways that might help give people the tools they need to pursue careers in this field.

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Science Editor: With that in mind, thinking back to yourself in high school, how would you describe what you do now to that young version of Mary to make her interested in it as a career?

Mary: Even now I struggle with explaining my job to those outside the scholarly publishing and association spheres. I would have to start with some basics but then I would emphasize the project management aspects of it. I would tell her that at the core of it, you're coordinating the creation of this final product, a journal, but there's so much more that goes along with it, so many opportunities to wear different hats and dabble in different areas. Then expanding on that, the work you do in this field supports the greater mission of the publishing organization.

Science Editor: What have you enjoyed most about your roles at AACAP?

Mary: I enjoy problem solving. I like meeting member, editor, and author needs, facilitating discussions about how to make things happen, and completing a finished product or successful project. Planning, development, implementation, launch: Seeing something through from start to finish is really satisfying. At AACAP, my work is in support of children's mental health, which gives it greater meaning and purpose. Publishing is the way that I can contribute to that mission. And I have wonderful colleagues. Our members are warm and thoughtful and so appreciative of the experience and energy that staff bring to the table. I have a great relationship with my editor-in-chief, our editorial team, and my AACAP staff colleagues, particularly the department directors. Most of us have worked together for many years. I value the relationships I have been able to build, and the opportunities to learn from and support amazing people.

Science Editor: What skills, abilities, personality attributes have you found essential to success in this career?

Mary: Flexibility, in all capital letters. A positive attitude and a sense of humor are important. I probably don't need to say to the readers of *Science Editor* that attention to detail and organization are essential. Also, openness. Our field thrives on open lines of communication and a ready willingness to share and collaborate with an appreciation for other people and their knowledge and expertise. No editor is an island.

Science Editor: This May, you are starting your term as CSE president. What has CSE meant to you and what are you looking forward to doing as president?

Mary: CSE has meant so much to me. The first time I attended a CSE meeting, I had just started in my role as Managing Editor and my then-editor-in-chief insisted that I join the CSE Program Committee and get involved, pushing me into conversations where, as an introvert, I would have stood off to the side and observed. Getting involved has been so valuable to me and has presented great opportunities for learning, but coming from an editorial office of 3 people, just meeting others in our field and participating in discussions about our shared experiences, was a revelation. It was probably the first time I'd heard the term "publication management" and it felt like I had found my people.

I continue to feel that way when I engage with CSE. Within CSE I have been mentored and have had opportunities to develop my expertise in our field. I have learned so much from some truly amazing people. With my presidency, I want to give back to CSE. Our Past Presidents, Dana Compton and Carissa Gilman, have worked so hard to ensure that CSE has continued to provide education and support to our members during the COVID-19 pandemic. That work needs to continue so that is my primary focus.

We do not know yet what 2022 is going to look like, but there's a strong chance that it will be our first opportunity to be in person in several years. That's on my mind a lot. What does that look like? What does hosting a hybrid meeting mean for CSE? I also want to get back to our strategic plan. CSE's board and committee chairs put thought and effort into strategic planning under Dana's leadership in November 2019. The organization's needs during the pandemic have just been different since then, but the priorities we talked about at that meeting are still relevant and important for CSE and we need to get back to that and move forward.

Science Editor: How have you changed how you collaborate and work with colleagues, both in CSE and in your work this past year?

Mary: Video conferencing, but it isn't that simple. For both AACAP and CSE, our work with member volunteers was already virtual, so the switch to working from home did not change our workflows. All our standing meetings are still there and in some cases we meet even more often than we did before. I used to see my team in the office every day, but I would only meet with them maybe once or twice a week. Now we briefly meet every day. The dedicated time together on the calendar helps us reduce email and move our work forward more efficiently. In addition to helping me orient and prioritize, it's also a good opportunity for me to check in with them as people. I enjoy seeing their pets and talking about what they might be doing outside of work. We get that team feeling at the start of each day, which is nice. For CSE, we have increased the frequency of our board meetings, and the senior leadership team meets weekly, which has been so valuable to me coming into this role. I know there is work being done on the long-term effects of video conferencing, particularly on children who are trying to learn and connect

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with their peers this way, but I think video is here to stay, and I never thought I would say this, but I prefer it to audio-only calls. It is not the same as being in a room together, of course, but it has been such an amazing tool over this past year.

Science Editor: I'm curious what's it like to be a parent and work for the American Academy of Child and Adolescent Psychiatry? I'm a parent of young children myself and every article on parenting and child behavior catches my eye, so I wonder what it's like to be surrounded by the information every day.

Mary: Every article on parenting and child behavior catches my eye, as you said. Maybe it is confirmation bias, but it does seem like a lot of the books and resources I reach for as a new parent are written by people I know or have at least heard of, which can be odd. Every parent worries, but I do think my fretting might sometimes run along specific lines because of the content I am exposed to through AACAP. That said, because of my work, I am so aware of the importance of early intervention and reducing stigma around mental health. It's easy to feel overwhelmed in the pediatrician's office, but I usually feel that my familiarity with child development concepts is some small advantage. And our members love working with kids and love seeing baby pictures, so I often get to wear my proud parent hat and share updates about the latest toddler developments happening at home.

Science Editor: What do you think you'd be doing if you hadn't gone into publications?

Mary Billingsley: I like to imagine that I would have pursued my love of American literature. I wrote my senior thesis on Willa Cather, and I spent more than 2 years deeply immersed in her work. My mentor, Merrill Maguire Skaggs, was a Cather scholar, and in her classes I learned to appreciate authors like Whitman, Dickinson, Emerson, Poe, and Twain in ways that still resonate with me now. I like to think that in an alternate universe I followed in her footsteps.

Science Editor: Coming back to science publishing, what would you say have been the biggest changes over the past decade and where do you see the industry going?

Mary: When I started at AACAP, it was the first year of the new editor-in-chief's term, and it was the first time that an editorial office had been located at the central office and not in-person at the editor's institution. It was a big cultural shift for our organization to have the journal office there as a department rather than a distant and time-limited satellite. Over time, it made the journal operations less siloed than might have been possible otherwise. The journal has editorial independence, of course, but there are opportunities to collaborate or to do things in tandem with the organization that wouldn't have been there in the past. My team being part of the larger association operations helps to make that happen and has created wonderful opportunities for growth and cooperation. A decade later, our editorial office was the first to manage an EIC transition and remain in place, which allowed for greater continuity and more seamless operations in a way that had not been possible before. I know that similar circumstances have been playing out in different ways across the industry for many years, but it was important for our organization and is still talked about as a decision that had a tremendously positive impact.

In terms of the future, like others, I've been thinking a lot about diversity, equity, and inclusion (DEI). The need for work in this area is not new, but there is so much energy and motivation right now to create positive change, and to learn and do better. There's so much demand for education and for action. This is not unique to our industry, but there is a need within our industry for efforts and education specific to the work that we do: not just DEI education and discourse, but editorial- and peer review-focused DEI education and discourse. And that is where CSE needs to be to meet the needs of our members and to support our field. Many organizations and journals have, and I hope will continue, to take bold steps and to innovate to address structural racism and disparities. It is exciting to think about the possibilities and know that the work underway now will lead to new industry standards and best practices. My hope is that the future of scientific editing and publishing is diverse, equitable, and inclusive.

Randy Townsend: On Finding His Calling and Founding a Journal

Jonathan Schultz

Starting a new journal is hard. Starting a new journal during a pandemic is harder still. As the inaugural Editor-in-Chief of the GW *Journal of Ethics in Publishing*, Randy Townsend is up for that challenge, bringing with him his experience as Director of Publishing Operations for the American Geophysical Union (AGU) and a team of dedicated student volunteers. This Spring, Randy spoke with *Science Editor* about the new journal, publication ethics, and the importance of putting together a diverse team.

Science Editor: How did you get started at the AGU?

Randy Townsend: Dumb luck brought me to the AGU 15 years ago. I was looking for a job in the DC area, and I started as a temp. After a few months, they invited me to apply full time for a production coordinator position, where I worked my way up to production manager after a couple of years. Then AGU partnered with Wiley who assumed all production related activities. I had to reinvent my career and lean into editor support where I eventually became Director of Publishing Operations.

Science Editor: Director is my title also, and it can be it a bit broad of a role. How would you define your role at the AGU?

Randy: I view it as being responsible for the staff that help support the journals. I'm responsible for the editors who work throughout the journal and for ensuring authors have a clear understanding of expectations so they can enjoy an easy publishing experience. There are a couple of levels of responsibility: content integrity, process integrity, and ensuring quality of output. It's also prioritizing the commitment to our stakeholders and consistently offering the really best service that we can possibly provide. You

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want to make sure that however they engage with us, the various stakeholders walk away with a fantastic encounter and want to come back again. You want them to share their rewarding experience with their colleagues and, hopefully, they will want to engage with us too.

We spend a lot of time focusing on the experiences of authors, reviewers, editors, and other outside stakeholders. We have about 26 people in the publications department at AGU organized into different teams, with each team responsible for considering a different stakeholder. We have a team solely focused on the needs, experiences, and challenges of peer reviewers. For example: how do we expand our peer reviewer pool? How do we ensure diversity? How do we ensure we have the right resources and training? How do we make sure that our instructions are up to date? Then we have teams specifically for authors, editors and editorial board members, strategic partners, and most importantly, we have a team devoted to staff operations. When we have a new procedure or policy— for example, open data—I bring all of my team members to the table and say, this is what we want to do and we want it to apply to all of our journals. We will want the editors to do X, Y, and Z, and we expect the reviewers to know what to do. We will also need the authors to understand the expectations in advance, and we need staff to know what they need to integrate it into their process. That's the opportunity for each

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stakeholder: The editor stakeholder group will say, well, the editors need this kind of training and these resources. They need to know what they need to say to the authors if they're not seeing compliance. Then the author group will report that authors will need to know about resources, and where they need to go to make their data available. They will need to know what statements are required and how to write a data citation. Then staff needs to know how to communicate with authors and editors, and how they add these expectations on top of what they're already doing. It's a convergence of minds and thinking into any particular process, and it's great to get a large team involved because they feel more ownership over the process and a better appreciation of the stakeholders we serve and represent.

Science Editor: That's an interesting structure. I think a lot of places have teams focused on individual journals, and the AGU really has made the effort to center around individual stakeholders. How does it work in practice: Is each person working on one journal or are they working on all the journals?

Randy: Each team has several journals. There are those idiosyncrasies, and each journal has a little individual personality, but we try to have consistency wherever possible. Part of that is because we have a cascading model. If a paper is submitted to one of our journals and it's slightly out of scope for that journal, rather than just reject, the authors may be given the option to transfer the submission to another one of our journals. If the peer review experience is vastly different from the original journal to the other journal, then we're not the same AGU publications. Having each team responsible for a group of journals breaks up the homogenization and gives them an idea of the individual characteristics of their journals, but also they see the bigger picture that we're all AGU publications, and that we have an ecosystem that is interdependent on each other. Our editors talk to each other through platforms and opportunities we create for them to engage with each other.

Science Editor: How did you get involved in the GW *Journal of Ethics in Publishing*?

Randy: This is really a full circle for me because I was in the George Washington University (GW) Masters of Publishing program years ago. I've always stayed in touch with that program and then in early 2019, I met with the director of the program, John Warren, and soon after that, they posted a call for an editor of a new journal on publication ethics. This piqued my curiosity because at AGU I've managed their ethics program since 2009, and I wanted to see how I could help. I've never been an Editor-in-Chief, but I've served tons of editors. The ones I have experience with are really inspiring, fun, and engaging. I was excited at the potential that I could bring to launch this journal.

Science Editor: We're talking in Spring 2021: Where does the launch plan for the journal stand?

Randy: We have a good number of submissions, but COVID really knocked the timelines out of whack for everything, pushing everything back almost a year. I wasn't announced as Editor-in-Chief until late October 2020. I then took an inventory of what was needed, such as author and reviewer instructions. I started to go through making changes, but I put the brakes on it because it's important that people understand that this is not *my* journal. My priorities then shifted to pulling together an editorial board. That's fundamental. I started writing out my short list of people that I would want to invite, and it was important that I have different perspectives and people looking at what we're trying to do from different angles. I wanted to meet with each of them first to hear about what inspires them about publishing. It was heartwarming to hear their stories, backgrounds, and vision. I was grateful that they would share, sometimes very personal, their stories and perspectives.

As I started bringing them into the editorial board, I realized we needed a student rep on the board because this is a student-run journal. From there, I decided we needed student committees, similar to how the AGU Publications structure is arranged around stakeholders. We came up with four committees: Strategy and Sustainability, Marketing and Outreach, e-Pubs, and Editorial. We put out a call for volunteers for the students asking them to rank their first choice, second choice, and third choice to make it equitable as well. From that group we also were able to identify our student editorial board members and unified leads for each committee.

I then drafted a charge for each committee and gave it to them as a draft. I asked them to talk among themselves, without me on the call, and think about what they want to accomplish, and how they want to approach their charge. If they had a magic wand, what would this look like? What could they do with that? And then start thinking practically: How do they build up to that based on the resources and time they have available?

Now, each committee is working in their respective areas. We're doing a double anonymous peer review and we're working to get that set up along with a peer review system. We're in spring 2021, so depending on how the peer review timelines go, it may end up becoming early summer. I'm slightly disappointed by that adjustment, but at the same time I'd rather take it slow and do it right than rush it through and fail the authors that contributed or fail anybody that is looking forward to this content and wanting to support the journal. Doing it right is much more valuable and important to me than rushing it through.

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Science Editor: It sounds like you brought a lot from your AGU experience to this new journal, and I'm curious, has there been anything from your year or so as an Editor-in-Chief that you've brought back to the AGU?

Randy: It's a big eye opener from the volunteer side. And in the COVID environment, it's hard to separate this particular moment in time from conventional wisdom. With the committees, they are students, and many of these students are working or have families and commitments. They may be quarantining, or they have a spouse that's in quarantine or a child that may be returning to school. There's the intent for them to participate, but the time may not be there. We knew at AGU that we wanted to give a lot of leeway to peer reviewers because they're volunteering their time. But with people starting to get vaccines, we are having the conversation about removing the messages and trying to restore some kind of normalcy to peer review schedules. But I don't know if we should, maybe we still need to give that leeway, and that message is still powerful. People see that and feel better about wanting to contribute or finding ways to volunteer knowing that we're giving that consideration.

Science Editor: What struck me about the Call for Papers[1] for the *Journal of Ethics in Publishing* is the significant focus on diversity, equity, and inclusiveness (DEI), which I don't think has traditionally been considered part of ethics in publishing. In addition, you cochair a few organizational committees on DEI in publishing. What do you see the as the state of DEI progress in scientific publishing?

Randy: For context, that association of the vision of the journal was in place before I became involved. John Warren and the advisory committee envisioned DEI as an important component from the beginning. But in my experience, diversity has not really been a part of our industry or something that we've traditionally thought about on a broader scale. I've written about this, but when I first entered scholarly publishing, I was at a publishing conference and one of the themes was diversity and the big keynote speaker focused only on gender diversity.

I scanned the room, and it was full of professional women; there were definitely men there, but I think overwhelmingly it was professional women. That was great, but I saw I was the only Black male in that entire room. There were a couple of Black women or women of color, but I was the only me. When I realized we were only talking about gender diversity, I kind of went into a shell, as if no one was considering me, that maybe I don't belong here. That's on the publishing professional side, but if I look at AGU and our editorial board members, again, there's nobody who looks like me.

I find it hard to believe that there are no Black geoscientists that could be Editor-in-Chief, an editor, or a peer reviewer. There are a lot of reasons why, and I think

a lot of organizations are starting to do assessments. They want to see the numbers, and the numbers that I've seen so far have been disappointing. They're hard numbers to see because you want to think that we're better than this. So the question is, if this is our starting point, what are we going to do to expand participation? How do we invite and include people and make sure they are welcome? These are the conversations that I'm seeing more, and I'm inspired by the allies that do speak up if they see something that's offensive, or a micro-aggression, or something that will alienate somebody. I'm inspired to see them defending the humanness of individuals and making people feel comfortable to participate by creating safe spaces and safe environments for them to participate.

Science Editor: You mentioned earlier that you kind of stumbled into the position at AGU. How did you envision what your career would be like, if not scientific publishing?

Randy: I'll be very honest with you because it's not a story I share with many people: I envisioned myself in the world of finance. I spent 6 years in banking, and I figured I'd worked my way up into a regional director or manager of a bank. Unfortunately, I was a victim of a bank robbery, of a violent crime. I was actually held hostage for about an hour at gunpoint, with the gun literally right here to my head. After that, I lost a big part of who I was to posttraumatic stress. One thing I knew at that point in my life was that I don't need two guns to my head to know that maybe banking isn't for me.

I started rethinking everything as I was working through the depression. I connected with some people that I've known for years, and we started our own entertainment company. Through that, I learned a lot of skills about networking, entrepreneurship, and business finance—that you have to get up early in the morning to make it happen, and sometimes you work late at night. It's exhausting, but it's a passion. That helped get me out of the rut that I was in and gave me something to look forward to. But my approach ultimately changed as I found myself in rooms where I knew what I was talking about, but people had degrees and they were the ones that were being listened to more so than me because I didn't have a degree.

I went back to school and got my bachelor's degree in journalism, and I felt like I could do anything. I grew up in New Jersey, and when I relocated to DC I realized how competitive the DC market is. I definitely humbled myself really quickly and went to a temp agency. From there, I guess it was dumb luck because they set me up with a job at the AGU and I loved it. I saw XML coding for the first time in my life, and I fell in love right away.

Science Editor: I have a background in film and video production too and I think there's a lot of overlap between that and editing and publishing where you're managing all these different aspects to produce a cohesive project.

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Randy: It's funny because I think I get on my human resources department's nerves a little bit because when we're hiring, I want to see every resume that comes through. From their perspective, they are looking at the publishing department, setting aside anyone with editorial experience, and weeding out anything else. I think there are so many relatable skills that can really benefit a publishing house. We have two colleagues that had backgrounds in theater management: There's something about the skills required for that role that I saw valuable because if you're managing a play, you must have the actors and actresses ready on a schedule. The costumes must be ready. The venue must be ready, and props must be where they need to be. I think we can use that kind of thinking when we're reshuffling 22 journals and we're trying to figure out how to bring in a new policy, rotate editorial board members, and bring on new staff. Human resources may not be looking for those types of skills because the relatability isn't obvious, but I'm looking for something different sometimes.

Science Editor: I love that approach because I think it also ties back to diversity and inclusion because you're expanding how you think about people, what they're capable of, and what type of role they fit into.

Randy: Yeah, absolutely. How boring would it be to only talk to a room full of Randy's? I love hearing the angle I missed or the idea I never would have dreamed of!

Science Editor: As we wrap up, is there anything else you want to share about the new journal?

Randy: Two things. First, we have an open Call for Papers[1] and I would love to have a conversation with any of your readers about what they may be interested in seeing published. Second, I want to convey how excited these students are. They're excited about publishing. They're excited about our industry. They're excited to contribute and what path they could take. If anybody is interested in engaging with students, they would appreciate that exposure. If anybody wants to become a peer reviewer or contribute to this publication our intent is to be valuable for our evolving industry. So, if you enjoy having philosophical conversations about how people engage with content and how we reach people, I invite your readers to join the conversation and be a part of this journal.

References and Links

1. https://docs.google.com/forms/d/15fgxqJqkAIH3KZI6PVyU5k2v868aybpxYfCTZLqhGYs/viewform?edit_requested=true

How Emerald Publishing Has Embedded the Sustainable Development Goals Publisher Compact Into Its Business Strategy

Tony Roche and Jen McCall

Emerald Publishing has been committed to supporting meaningful, real world impact—what we call our Real Impact journey—for several years and is dedicated to equality in its broadest sense. Since 2018, we have made several conscious moves to challenge the status quo in the sector, and to think differently about our content program. To date, we have launched the Real Impact Manifesto,[1] become a signatory of DORA,[2] launched Emerald Open Research[3] to advance open publishing solutions, and in 2019, launched our Emerald Insight[4] platform which gives the potential for content types to be reimagined through multiple consumer lenses.

Our motivation for making these changes, contributing to shifting research culture, and driving impact is continuously dictated by the world around us, and if anything, heightened by the pandemic we are all living through. Despite the many aims expressed by the United Nations and international governments in the Sustainable Development Goals (SDG) Publisher Compact,[5] as a community, we are not making rapid enough progress. It is the duty of research institutes, publishers, and funders to come together to collectively meet these challenges as they pertain to the research ecosystem, and with far greater urgency.

Ultimately, we all have a responsibility to help solve global challenges, and signing the SDG Publisher Compact in early 2021 was the natural step in Emerald's journey to support real impact. The Compact is designed to inspire

Tony Roche

action among publishers and accelerate progress to achieve the SDGs by 2030.*

As a founding signatory of the Compact, we aspire to develop sustainable practices and act as champions of the SDGs during the Decade of Action[6] (2020–2030), publishing content that will help inform, develop, and inspire action (Table).

We recognize that our commitment to the Compact needs to be reflected in practices across Emerald as a whole. We have therefore structured our approach to embed the Compact across 6 key pillars of the organization: our products and services, our people, our supply chain, our communities, our governance, and our environment.

SDG Publishers Compact Initiatives

Since signing the Compact, we have launched several initiatives within these pillars including creating a cross-functional

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*The SDGs were adopted by all United Nations Member States in 2015 as a universal call to end poverty, protect the planet, and ensure that all people can enjoy peace and prosperity by 2030.

Jen McCall

team, identifying foundational key performance indicators and publishing these on our website, committing to reporting progress each quarter to Emerald's Board, embedding the Compact within our group-wide responsible business strategy, and introducing a new ethical procurement policy.

Underpinning all of this, we are becoming a facilitator of research, rather than solely publishing research outputs themselves. Our strategy builds on our ongoing commitment to promote "real world" impact through the research we publish and the services we offer. As part of this, we are concentrating our commissioning activities on mission-based research to support the United Nations SDGs, calling for research that can help solve real world issues.

Table. Signatories to the Sustainable Development Goals (SDG) Publishers Compact commit to 10 action points.

- Commit to the SDGs publicly
- Promote and acquire SDG content
- Annually report on progress towards achieving SDGs
- Nominate a person who will promote SDG progress
- Raise awareness and promote the SDGs among staff
- Raise awareness and promote the SDGs among suppliers
- Become an advocate to customers and stakeholders
- Collaborate across cities, countries and continents
- Dedicate budget and other resources towards accelerating progress
- Taking action on at least one SDG goal

By moving beyond the restrictions of traditional subject disciplinary silos, we focus on commissioning interdisciplinary, mission-led research aligned to our core goals that inspire positive change at a time when it is needed most.

To identify our core areas of focus, we conducted in depth analysis of funding, research, and our own content strengths across more than 50 years. From these insights we chose 4 goals[7] that correspond to overlapping SDGs: healthier lives, responsible management, quality education for all, and a fairer society.

At an organizational level, we recently made some changes to reflect our renewed focus, including the appointment of 4 new publishing development managers to gain a deeper understanding of the scholars, funding, and fields within our chosen goals.

Next Steps

Throughout 2021, we will pose questions related to our goals, and commission and curate research content that demonstrates progress in attempting to answer these questions. This will allow us to dig deeper into real-world issues relating to our four goals, such as the impact of COVID on women, digital inclusion and the digital divide, food poverty and waste, the future of learning, and mental health and loneliness.

Our aim is to curate our content across our goals and specific mission-led themes, making content more discoverable to wider audiences, while helping researchers to access more relevant scholarship related to their research.

These are just some of the steps we have taken to embed the Compact into our strategy but as the world around us continues to change rapidly, we will remain agile and adapt as best as we can to play our part in solving significant global challenges.

To find out more, visit: Our goals | Emerald Publishing[7]

## References and Links

1. https://www.emeraldgrouppublishing.com/sites/default/files/2020-02/impact-manifesto.pdf
2. https://sfdora.org/
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4. https://www.emerald.com/insight/
5. https://www.un.org/sustainabledevelopment/sdg-publishers-compact/
6. https://www.un.org/sustainabledevelopment/decade-of-action/
7. https://www.emeraldgrouppublishing.com/our-goals

From Classic to COVID-Related: Some Communication Highlights of the 2021 AAAS Meeting

Christina B Sumners, Justin Agan, Melissa Espinoza, Duanduan Han, and Barbara Gastel

Well before the COVID-19 pandemic emerged, the American Association for the Advancement of Science (AAAS) chose "Understanding Dynamic Ecosystems" as the theme of its 2021 annual meeting, held February 8–11. This theme gained new meaning with the pandemic's advent, the resultant conversion of the meeting to an online event, and the inclusion of meeting content on coronavirus-related concerns. As in past years, though, the meeting included panels, workshops, and other sessions on topical and other aspects of the communication of science. The following are some highlights that might interest science editors and those in related realms.
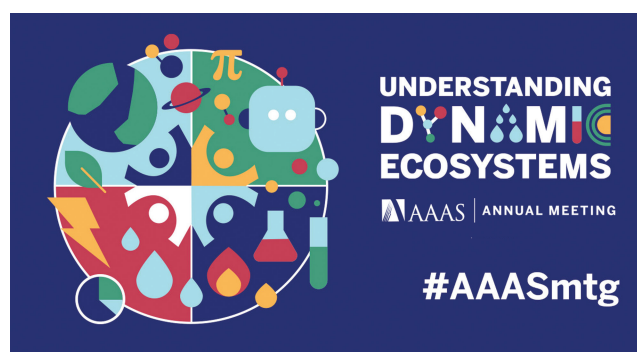
Institution, Journal, Reporter: Strategically Mitigating COVID-19 Misinformation

By Christina B Sumners

This session brought together a university public information officer, a journal press officer, and a freelance journalist to discuss the use of preprints in popular science communication during the COVID-19 pandemic.

Sarah McQuate, a public information officer at the University of Washington, discussed how she decides whether to promote her faculty's research at the preprint stage. Before the pandemic, the university's news office had published only 1 press release on a preprint. Between March 2020 and February 2021, it published 7. McQuate listed the criteria each preprint had to meet:

- It had a trusted author with whom she had worked before.

CHRISTINA B SUMNERS, JUSTIN AGAN, MELISSA ESPINOZA, and DUANDUAN HAN are current or recent graduate students, and BARBARA GASTEL is a professor, at Texas A&M University.

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.

- It had a timely message or findings necessary to share now, not after lengthy peer review.
- The research methods had to be standard in their field.
- The research findings had to be expected, or at least unsurprising.
- The preprint had to have some sort of internal informal peer review, such as being read and approved by other experts at the university.
- The results could not influence medical decisions.

Joseph Caputo, senior media and communications manager at Cell Press, noted that his publisher and over 30 others had signed the Wellcome Trust agreement early in the pandemic. The agreement included principles for ensuring coronavirus-related information was made freely available as quickly as possible, including encouraging publication on preprint servers before peer review. Because so many of its papers were already public as preprints, Cell Press did not embargo those related to COVID-19 research. They also limited the number of press releases about the papers' findings. One release it did publish regarded a paper that had received considerable attention as a preprint because it reported a more-contagious coronavirus variant. To help the public better understand the scientific process, the release focused on how the paper changed during peer review. Caputo deemed the pandemic an opportunity for journals to experiment with different media relations approaches.

Freelance journalist Wudan Yan had written an April 2020 *New York Times* article titled "Coronavirus Tests Science's Need for Speed Limits." In it, she described how the pandemic had driven interest in both preprints and journal articles but said the public may not understand the limitations of research—especially research not yet peer reviewed. If a journalist does cover a preprint, Yan suggested interviewing more experts than usual, including a statistician, and stating the study's limitations in lay language as early in the article as possible.

How to Create Compelling Research Talks Using Elements of Story

By Justin Agan

This workshop was designed to guide audience members in using elements of storytelling to give engaging and understandable presentations. In the first part, the elements of storytelling were presented, and their application was discussed. In the remainder, attendees could create their own talks using the elements of story and a simple template.

Holly Walter Kerby, of the University of Wisconsin–Madison's Institute for Discovery, and her team members H Adam Steinberg and Jacqueline Goldstein gave this workshop. Kerby, the moderator and main speaker, spent the first part of the workshop explaining the elements of story and saying how she and her team work to help scientists employ storytelling about their research to give more engaging presentations.

To illustrate how the elements of story can be applied to science talks, Kerby, who teaches both playwriting and chemistry to college students, told her own story. She said she began by using the principles of playwriting to better engage her chemistry students and then started disseminating this approach throughout the scientific community.

Kerby described 4 principles of story: *journey*, *audience entry*, *question*, and *focus*. The *journey* is the sequence of events constituting the story. *Audience entry* consists of the parts of a story that let the audience experience the story and relate to the characters. The *question* is the main unknown in the story that needs an answer. *Focus* keeps the story on track to a single destination. Regarding focus, Kerby quoted a saying common among playwrights: "If a story is about many things, it's about nothing."

In the second part, Kerby and her team provided a template and guided the audience through using it to create their own stories from their research. The template contained the following elements: audience, main concept, character, problem, question, steps, answer, and conclusion. Attendees had time to complete each section of the template using the 4 principles.

During the exercise, Kerby and her teammates offered suggestions regarding each part of the template and explained how the template can be used for both short and long presentations. They noted that the template can aid in creating 3-minute thesis talks, which recently have become popular. Kerby's closing advice was to seek feedback from audiences to improve future talks.

Journals, Journals Everywhere: But We Should Stop and Think

By Melissa Espinoza

Publish or perish is a common saying in academic science. But how should researchers choose where to publish their work? This question was the focus of this career workshop, coordinated by librarians Roxanne Bogucka, of The University of Texas at Austin, and Jessica Martinez, of the University of Idaho. Leading the workshop were fellow librarians Melanie Radik, of the University of Massachusetts, Amherst; Kelee Pacion, of Princeton University; and Khue Duong, of California State University, Long Beach.

After introductory comments by the leaders, the attendees were divided into breakout groups, each of which was assigned a scenario regarding choice of a journal at a given career stage or in a given professional setting. One scenario, for example, regarded a young graduate student trying to publish some work: Should the graduate student aim for a prestigious, competitive journal to get established in the field, or should they choose an expensive open access journal that would allow them to present their findings more widely? When making these decisions, the presenters said, authors have much to consider, including a journal's accessibility, prestige, author fees, ownership policies, and publication turnaround time. The presenters mentioned rubrics that can help authors evaluate journals in such regards.

This workshop also included analysis of the current publishing ecosystem. Participants expressed hope that journals will keep what they feel works—peer review and hybrid publications—and that work will be done to address issues such as high retraction rates, predatory journals, high publication costs, and low accessibility. The workshop concluded with an optimistic discussion of the future of scientific publication. Attendees said they anticipated a rise in the use of professional writers; an increase in well-recognized, highly valued open access publications; and more patron-driven acquisitioning by libraries. They also voiced hope to see journals publishing review comments alongside papers.

How to Create and Deliver an Effective Webinar

By Duanduan Han

Webinars have attained unprecedented popularity during the COVID-19 pandemic. A webinar can have both

disadvantages and advantages relative to an in-person seminar. On the negative side, webinar audiences can be distracted by their environment, the internet connection or hardware may pose problems for speakers or listeners, and in-person engagement is impossible. However, audience members may be more comfortable asking a question in a chat box than in person, and hosts can integrate similar submitted questions to better use question-and-answer time.

In this workshop, Dennis Meredith, an independent science communicator, first presented technical tips for webinars. Among them: Use the poll function of webinar platforms to gauge audience members' interest and get instant feedback. Consider using hand gestures to attract attention, since many audience members are watching webinars on small screens such as those of cellphones. For best results with virtual backgrounds, use a green screen. However, to keep the background from concealing one's body, avoid green clothes. Invest in a standalone camera, and position it slightly above the eye level of the speakers, so they will appear to look upward rather than down or away. Do not rely on natural lighting, which may generate shadows or illuminate faces weirdly; consider a ring light, which gives adjustable, diffuse light. To help optimize audio quality and let audiences hear speakers clearly, use lapel microphones and a quiet room.

Although delivered online, Meredith noted, the core of a webinar is still the presentation. Therefore he included the following advice: Use a headline-like title to grab attention. Employ sans serif typefaces (such as Calibri). Limit each slide to no more than 40 words and 7 bullet points. To avoid distracting audience members, include on slides only material the speaker will discuss. Make use of images, which facilitate information delivery. Finally, practice and rehearse, in part as a way to find flaws in slides and speech.

Meredith also mentioned resources, including Adobe Stock for stock images and CrystalGraphics for PowerPoint templates. A handout from the workshop is posted at http://dennismeredith.com/aaas-workshop-handout_519.html.

Journal Challenges: Through the Lens of 2020

By Barbara Gastel

A presentation by Monica Bradford, executive editor of *Science,* enlivened the business meeting of AAAS Section Y, which serves fields such as science communication. Titled "Journal Challenges: Through the Lens of 2020," the presentation focused largely on challenges journals have faced related to COVID-19. It also touched on recent initiatives in other regards.

Bradford noted that the move to remote work required little adjustment for the *Science* editorial office, which already had some members working remotely and was accustomed to technologies such as Zoom. She said a major effort, though, was the collaboration of multiple journals to update the 2016 Statement on Data Sharing in Public Health Emergencies; key features of the updated statement include immediately making openly available all peer-reviewed research publications relevant to the pandemic. Three COVID-era "game changers," Bradford said, were the large influx of journal submissions on COVID-19, greatly increased use of preprint servers, and expanded activity of social media in communicating about science. Accordingly, she said, editors found themselves not only screening many papers but also monitoring preprints and contending with posts in social media. She also said that obtaining peer reviewers became more difficult, both because scientists were busier and because some candidates already had seen versions of the papers as preprints or been exposed to them in social media. In closing the segment, Bradford emphasized that alongside demands posed by COVID-19, journals still were busy publishing other science.

Items that Bradford mentioned in the remaining time included the following: initiatives involving journals in helping to promote reproducibility, transparency, and openness in science; the cross-review initiative, in which peer reviewers can comment on one another's reviews before the reviewing is finalized; data-sharing policies; and researcher workflow tools. Some such efforts, Bradford said, have been temporarily receiving decreased attention because of COVID-19.

Looking Back and Looking Ahead

As in previous years, a daylong Communicating Science Seminar preceded the main part of the annual meeting. Information on the 2021 seminar and videos of its main sessions ("Public Engagement During a Pandemic: Lessons from the Frontlines" and "Using Partnerships to Improve Public Engagement Across Sectors") can be accessed at https://www.aaas.org/programs/center-public-engagement-science-and-technology/2021-communicating-science-seminar. Other information on the 2021 AAAS annual meeting is posted at https://www.aaas.org/resources/2021-aaas-annual-meeting-archive.

The 2022 AAAS annual meeting, themed "Empower with Evidence," is slated to have both in-person and virtual aspects. The in-person component, convening February 17–20 in Philadelphia, is to include plenary and other lectures, special programming, and networking opportunities. All scientific sessions, however, will be virtual. For the latest information about the meeting, please see https://meetings.aaas.org/.

Restoring Sanity Into Punctuation of References

Yateendra Joshi

What punctuation would you use in mentioning a company and its location (as in Microsoft, Redmond, WA) in running text? Isn't it most common and natural to use commas? And yet, when it comes to giving the publisher and the place of publication of a book as part of a reference, many journals, including *Science Editor*, require you to use a colon, as in New York: Harper & Row or London: Penguin Books. The most common function of a colon is "to indicate a step forward from the first to the second—as when the second part explains the first part or provides an example"[1] or, to put it more simply, to signal that what follows a colon is an elaboration, a definition, an explanation, or an example(s) of the text that precedes the colon, as in "This brings us to possibly the most significant development of 2020: The prominence of science, and scientific publishing, in the minds of the general public." In the examples given above, Harper & Row or Penguin Books is none of these things in relation to New York or London.

Another use of the colon in references that flies in the face of the recommendations made in usage guides is seen in references to chapters, as seen in the following example from the *AMA Manual of Style*,[2,p83] in which a colon follows the preposition "in":

> Boushey CJ. *Application of research paradigms to nutrition practice. In: Coulston AM, Boushey CJ, Ferruzzi MG, eds.* Nutrition in the Prevention and Treatment of Disease.

And yet, the very style manual cautions against such use of the colon[2,p458]: "Avoid using a colon to separate a preposition from its object." To be fair, the manual does explain this use of the colon to separate bibliographic elements within a bibliographic group.

Or, take the parentheses. Many journals, typically those from Europe and Britain, enclose the year of publication

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in parentheses. Now, that bit of information is certainly not incidental, not something to be glossed over; on the contrary, it is important information because it tells us how recent—or dated—the source in question is. So why put it within parentheses?

This article seeks to highlight the widening gap between the use of different punctuation marks as advocated in well-established style manuals and the increasingly idiosyncratic ways in which well-established international journals deploy the marks within references appended to scholarly articles and research papers. The format used by a few leading journals for references to papers published in journals is illustrated in the Table. To make it easier to compare the formats, the content, or the bibliographic details, remain the same. Although the original capitalization, typographic cueing (bold or italics), and journal titles (abbreviated or in full) have been retained in the examples reproduced in the Table, those details are irrelevant to this essay.

The Period

The use of the period in the examples in the Table ranges from the legitimate (to mark abbreviations—although skipped in example 6) through the optional (after the initials in author names) to the superfluous: all the examples use a period to mark the end of the reference—perhaps the only feature they share—but these references are not sentences at all, nor are the references ever run on like sentences within a paragraph. I wonder what purpose, if any, is served by that dot at the end.

The Semicolon

If there is one stop that can have no legitimate function in references, it is the semicolon simply because it is too subtle a stop to be deployed within so mundane a grouping as that of different elements that make up a bibliographic reference. The American Chemical Society uses it to separate the names of authors, using the semicolon as a "super comma"—a use most style manuals recognize. Casagrande,[3,p69] for example, says that a semicolon "can separates items in otherwise unwieldy lists, especially when the items listed contain their own internal commas." However, if the commas used for separating the last name of an author from the author's initials are dispensed with, the semicolon too can be ditched.

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Table. Comparison of reference formatting by different journals.

Example No.	Journal	Reference
1	*Journal of the American Medical Association*	Foster JC, Varlas S, Couturaud B, Coe J. O'Reilly RK. Getting into shape: reflections on a new generation of cylindrical nanostructures' self-assembly using polymer building block. *J. Am. Chem. Soc.* 2019;141(7):2742-2753.
2	*Journal of the American Chemical Society*	Foster, J. C.; Varlas, S.; Couturaud, B.; Coe, J.; O'Reilly, R. K. Getting into Shape: Reflections on a New Generation of Cylindrical Nanostructures' Self-Assembly Using Polymer Building Block. *J. Am. Chem. Soc.* **2019**, *141* (7), 2742–2753.
3	*Science*	J. C. Foster, S. Varlas, B. Couturaud, J. Coe, R. O'Reilly, Getting into shape: Reflections on a new generation of cylindrical nanostructures' self-assembly using polymer building block. *J. Am. Chem. Soc.* *141*, 2742-2753 (2019).
4	*Proceedings of the National Academy of Sciences, USA*	J. C. Foster, S. Varlas, B. Couturaud, J. Coe, R. O'Reilly, Getting into shape: Reflections on a new generation of cylindrical nanostructures' self-assembly using polymer building block. *J. Am. Chem. Soc.* 141, 2742–2753 (2019).
5	*Experimental Agriculture (Cambridge, UK)*	**Foster JC, Varlas S, Couturaud B, Coe J and O'Reilly RK** (2019) Getting into shape: reflections on a new generation of cylindrical nanostructures' self-assembly using polymer building block. *Journal of American Chemical Society* **141**, 2742–2753.
6	*Science Editor*	Foster JC, Varlas S, Couturaud B, Coe J, O'Reilly RK. Getting into shape: reflections on a new generation of cylindrical nanostructures' self-assembly using polymer building block. J Am Chem Soc. 2019;141(7):2742–2753.

And do we really need the semicolon between the year of publication and the journal's volume number? (examples 1 and 6 in the Table)? The relationship between the year and the volume number is at best accidental, the parts on either side of the semicolon are certainly not independent clauses, and neither part includes a comma.

Lastly, why skimp on the space that typically follows the semicolon in normal usage?

The Comma

Whereas the use of the comma to separate one author from the next is unexceptional, using one to separate the volume number from the inclusive page numbers is questionable. After all, these are neither items in a series (as in red, green, and blue) nor of equivalent status, a volume being a much larger unit because it contains dozens of individual papers, each with its page range.

On the other hand, in example 3 (*Science*), perhaps a heavier stop (a period?) is required to separate two distinct items, namely authors and the title of the paper, all the more so because a comma is also used to separate one author from the next.

Concluding Remarks

Let us reconsider how we should deploy punctuation marks in setting out references—these marks seem to have strayed, perhaps to serve some requirements of parsing the data—and it is time to bring them back into the fold as it were by making them conform to their standard functions in normal text to serve readers. In fact, now that we look up a cited document not by noting down the details given in the reference but simply by clicking, it is time that we reconsider not just the punctuation but the entire format for references—but that is another story and perhaps another article.

References and Links

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2. Christiansen SL, Iverson C, Flanagin A, Livingston EH, Fischer L, Manno C, Gregoline B, Frey T, Fontanarosa PB, Young RK. AMA manual of style: a guide for authors and editors. 11th ed. New York, NY: Oxford University Press; 2020.
3. Casagrande J. The best punctuation book, period. Berkeley, CA: Ten Speed Press; 2014.

Editors-In-Chief Roundtable: DEI and the EIC

MODERATOR:
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Philadelphia, Pennsylvania

REPORTER:
Erin Landis
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The "Editors-in-Chief Roundtable: DEI and the EIC" session of CSE's 2021 Annual Meeting provided an opportunity for editors-in-chief (EIC) and editorial staff to discuss what efforts they have undertaken, or are considering, to address issues of diversity, equity, and inclusion (DEI) within their journals' content, editorial boards, practices, policies, and procedures. The session underscored how such initiatives are imperative to the progress of improving the diversity, equity, and inclusiveness of the scientific publishing process and community.

Dr Christine Laine opened the session by conducting a brief poll, inquiring how many of the journals present in the meeting collect demographic information of various stakeholders in the scientific publishing process. For most stakeholder types, only about a third of the journals collect such information (Figure 1).

Dr Laine pointed out that collecting demographic information from authors and reviewers can be challenging. If the journal does so only for accepted articles or for reviewers who complete reviews, you have an incomplete picture. There are also different opinions about whether information on author demographics should be available to decision-making editors during peer review. The EIC of *Science* stated that they collect demographic data at the time of submission but that such data is only available to editorial staff (not editors or reviewers). Dr Laine followed the first poll with a second question: "Do you have a DEI editor?" Only 13% stated "yes" (Figure 2).

Dr May R Berenbaum, EIC of *PNAS*, shared her journal's experience with DEI efforts. She stated that *PNAS* chose to first address the lack of diversity on their editorial board. They focused on issues such as geographical location, public vs. private institutions, and coastal vs. middle-of-the-U.S. institutions, noting that these demographics were somewhat easier to address than racial and ethic diversity, although they've been able to make gains in this area as well. She noted that the pool of researchers to draw from for the editorial board also is insufficiently diverse.
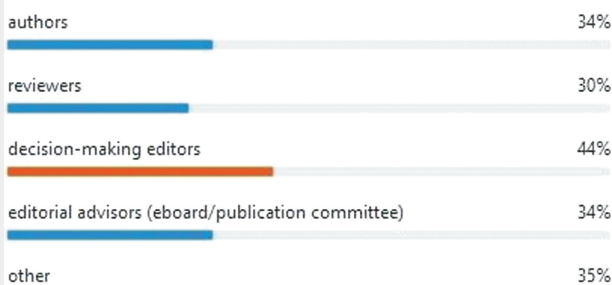

Figure 1. Percentage of journals that collect demographic information by stakeholder.

Several EICs also remarked how it is challenging to collect data from authors outside of the U.S., as asking such questions may be seen as irrelevant, offensive, or invasive. Additionally, those outside the U.S. may not be familiar with the terminology we use when collecting demographic information. One way to mitigate these concerns is to ensure that journals state 1) why they are collecting the data; 2) how they will use it; and 3) how it will be stored.

What key demographics should a journal consider collecting? The EICs in the session put forth list for consideration:

- Gender
- Race/ethnicity
- Geographic location
- Age
- Disabilities
- Veteran status
- Public vs. private institutions

Figure 2. Percentage of journals that have appointed a diversity, equity, and inclusion (DEI) editor to their boards.

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- Academic vs. industry
- Career stage
- Sexual orientation

A short discussion around issues of unconscious bias focused on the double-blind peer review model and its possible role in reducing bias. However, many noted that this model can be challenged by preprints and the ability of editors and reviewers to correctly "guess" who authored an article. Often, blinding information within the actual manuscript, not just the byline, is needed to achieve adequate blinding.

The last portion of the session focused on the role of DEI editors: What are their specific directives? For some journals, these editors write and review content, oversee new initiatives and programs, and serve as advisors. For other journals, DEI editors evaluate current policies and procedures through a DEI lens and make suggestions for improvement.

Council of Science Editors

Call for Diversity, Equity, and Inclusion Scholarly Resources

CSE has launched a repository of journal and organizational statements related to diversity, equity, and inclusion.

Many journals have begun working to improve editorial board diversity, evaluate peer review processes for implicit bias, revise guidelines for authors, or develop training opportunities, while others are struggling with where to start.

Has your journal or organization issued a statement about policies and practices related to diversity, equity, and inclusion? Please consider sharing your efforts with our community by completing the DEI Resources Submission Form on the CSE homepage under "Resource Library."

Submitted resources will be publicly available on the CSE website.

Managing Information From Preprints: The Scholarly Record and the Public Need for Information (Especially During a Pandemic)

MODERATOR:
Patricia K Baskin
Executive Editor, Neurology
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SPEAKERS:
John R Inglis
Cold Spring Harbor Laboratory
Cold Spring Harbor, New York

Bruce T Rosenblum
Inera
Somerville, Massachusetts

Iratxe Puebla
ASAPBio
San Francisco, California

REPORTER:
Tony Alves
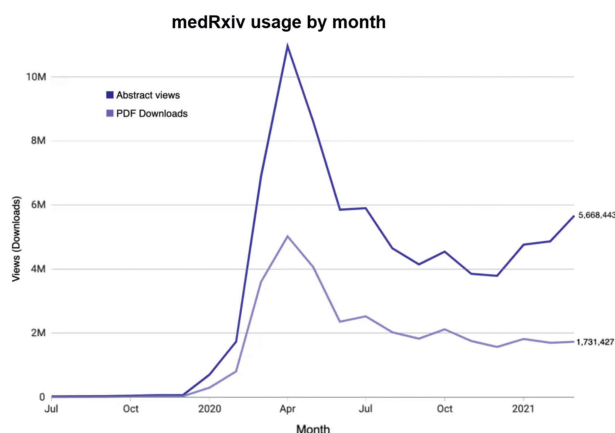Hopedale, Massachusetts

The session entitled "Managing Information from Preprints: The Scholarly Record and the Public Need for Information (Especially During a Pandemic)" was held on May 3, 2021 at the Council of Science Editors Annual Meeting. Moderated by Patty Baskin, Executive Editor of the *Neurology*® Journals, the session featured presentations from John Inglis, Co-founder of bioRxiv and medRxiv, and Executive Director of Cold Spring Harbor Laboratory Press; Iratxe Puebla, Associate Director of ASAPbio; and Bruce Rosenblum, Vice President of Content and Workflow Solutions at Inera, an Atypon Company.

During the COVID-19 pandemic, the usage and popularity of preprint servers has grown. Preprints have been common in disciplines such as physics, astronomy, and mathematics for decades, via the arXiv[1] preprint server, but they are a somewhat new phenomenon in biology and medicine. Preprints allow for an early look at new research, often before authors submit their manuscripts to scholarly journals for evaluation and peer review. Because readers have access to research before it is peer reviewed, confusion and misconceptions around preprints may arise, particularly among the general public.
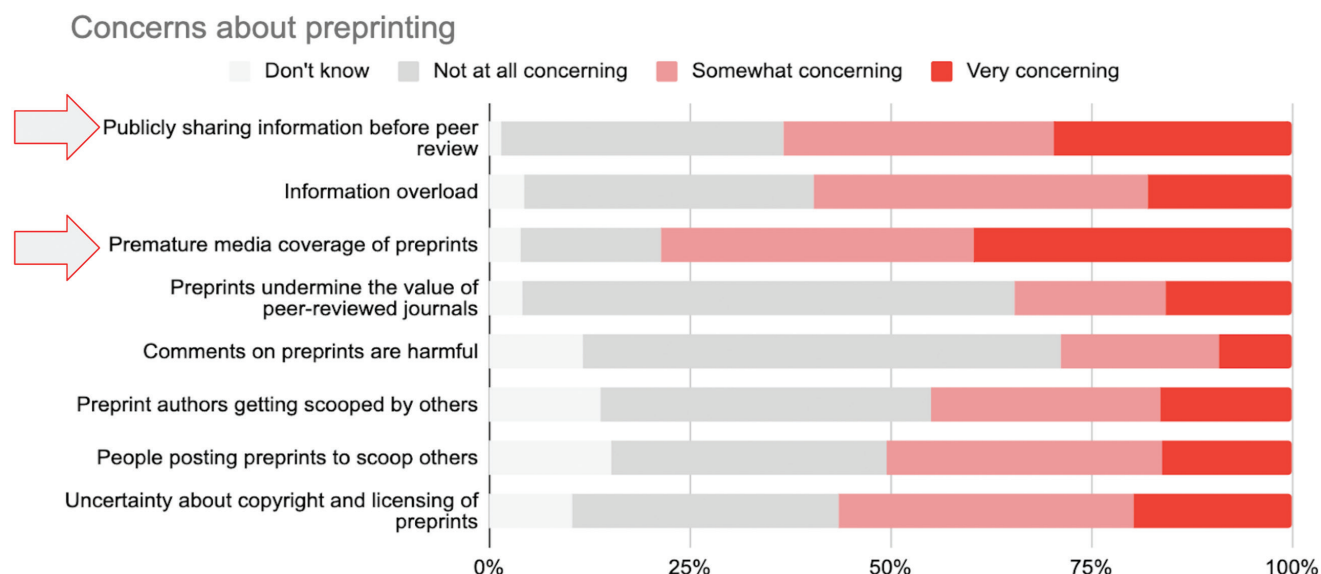
John Inglis presented first and provided a comprehensive overview of how preprints are transforming research communications, using bioRxiv[2] and medRxiv[3] from Cold Spring Harbor Laboratory (CSHL) as examples. Inglis spoke
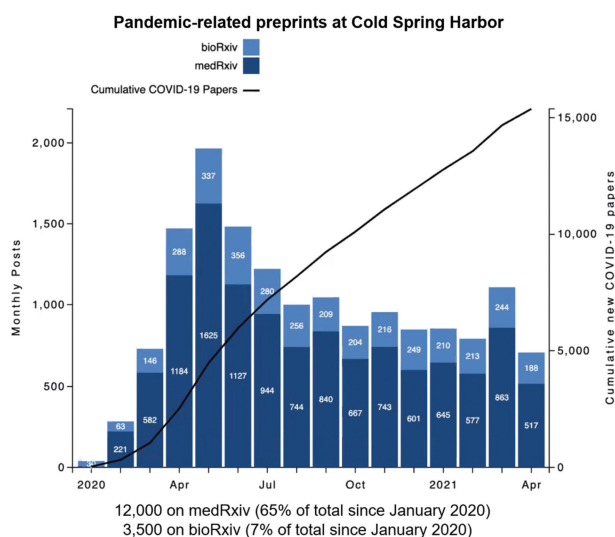
of the enthusiasm that has arisen because of the speed that preprints offer, exposing useful research in a matter of days rather than months. Preprints also offer more control for authors—they are free to read and submit, and they

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Concerns about preprinting

#biopreprints2020 survey n=512
https://asapbio.org/biopreprints2020-survey-initial-results

make possible a dialogue between authors and readers. Inglis noted that CSHL's preprint servers are not a product; rather, they are a service from an academic institution with a long history of innovation in science communication and education. The preprints are not peer reviewed, but they are screened, and they can be revised at any time until they are accepted by a journal.

Since January 2020, there has been a deluge of pandemic-related preprints, with 16,000 on medRxiv and bioRxiv alone. In one article, "The first 12 months of COVID-19: a timeline of immunological insights," published in *Nature Reviews Immunology*,[4] of 168 citations, 12 were to preprints, and 42 to journal articles with preprint versions. COVID-19–related preprints posted in 2020 were published in journals faster than non–COVID-19-related preprints, and citation of medRxiv preprints has skyrocketed.

The adoption of preprints in biomedicine has been criticized by some because it brings attention to unvalidated science. Some preprint authors have made exaggerated or mistaken claims that have been amplified by the media and adopted by politicians. Inglis reviewed the precautions

Example of a "good" preprint citation

➢ From the *AMA Manual of Style*:

1. Bloss CS, Wineinger NE, Peters M, et al. A prospective randomized trial examining health care utilization in individuals using multiple smartphone-enabled biosensors. bioRxiv. Preprint posted online October 28, 2015. doi:10.1101/029983

taken at bioRxiv and medRxiv to reduce mistrust. In-house content specialists and independent principal investigators approve all posted manuscripts. Submissions are declined if they aren't research papers, don't have conflict of interest and ethics approval statements, report unregistered clinical trials, encourage self-medication, or promote conspiracy theories. It is interesting to note that only 33 (0.2%) of the pandemic-related preprints have been withdrawn. Retraction Watch's database lists more than 100 retracted journal papers on COVID-19.

Iratxe Puebla spoke second, and provided a strong endorsement of preprints, pointing out that ASAPbio[5] supports preprint adoption in the life sciences. ASAPbio is a "scientist-driven nonprofit working to drive open and innovative communication in the life sciences." They promote both the use of preprints and transparent peer review. Puebla's presentation was called "Building Trust in Preprints: Opportunities Ahead," and she focused on how preprint metadata practices can enable transparency and trust. Reporting on a set of recommendations by stakeholders, she first talked about how it should be clear what version of the work is being read or cited, and that readers should always be pointed to the newest version of the preprint, recommending persistent identifiers for each version. The published journal article, if there is one, should always be linked to the preprint once it is available. Puebla recommended that the metadata for withdrawn or removed preprints clearly identify that it was withdrawn or removed, and that it is desirable to include the reason for the withdrawal. With regard to reviews of preprints, review services can register Crossref DOIs for the reviews,

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and preprint servers could also use Crossref Event Data to surface commentaries and reviews for readers.

Puebla, like Inglis, addressed concerns about preprints, such as public sharing of research before peer review, and premature media coverage of preprints. These concerns and others can be handled through transparency in labeling and reporting, and Puebla outlined ASAPbio's guiding principles[6] for preprint servers on preprint labelling. Finally, Puebla discussed a few platforms that provide peer review of preprints, such as Review Commons,[7] PREreview,[8] and the overlay journal *Rapid Reviews: COVID-19*.[9]

The final speaker was Bruce Rosenblum, an expert on scholarly citations. His talk was entitled "Challenges Citing Preprints and How to Tackle Them." He pointed out several challenges with preprint citation. First, preprint servers don't always identify contents as preprints. Second, recommended citations may be incomplete. Third, author citations are frequently incomplete. Finally, incomplete metadata makes citation completion and verification challenging.

Rosenblum ran through various examples of confusing citations, including a National Geographic article that cited a preprint as "New research" without specifying that the research had been posted as a preprint and was not yet peer reviewed. He pointed out how different citation formats don't include clear guidelines on how to handle preprint citations, and that DOIs are often missing. He provided a lot of good advice, recommending that journal style guides, reference management software, and author instructions be updated to include elements such as preprint server name, preprint title, a preprint indicator, and preprint DOI.

Other issues covered by Rosenblum include the lack of consistent linking between preprints and their published articles, inconsistent Crossref query results, posting the same preprint on multiple servers, and missing "withdrawn" status for withdrawn and removed preprints. One particularly problematic situation is when a preprint is replaced by the published journal article. This is a problem because if an author has cited a preprint, and the information in the published article has materially changed since it was cited as a preprint, then this will undermine the chain of citation.

Rosenblum finished his presentation with a list of recommended practices such as: 1) Clearly identify non-peer reviewed content at all stages; 2) update citation style guides; 3) ensure preprints are treated as unique citation types, are promptly updated with publication status, never replaced by a published journal version or deposited to Crossref as a journal article; and 4) automatically link published articles with their preprints and identify withdrawn preprints. He also recommended 3 articles.[10–12]

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Progress Toward More Author-Friendly Submissions

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The session "Progress toward More Author-Friendly Submissions" was held virtually on May 5, 2021. Moderated by Helen Atkins, Senior Manager, Journal & Product Support at the American Chemical Society, the session featured presentations from Kevin-John Black, Product Lead at Cold Spring Harbor Laboratory; Virginia Ramsey, Managing Editor of Kidney360 at the American Society of Nephrology; and Jonathan Schultz, Director, Journal Operations at the American HeartAssociation.

The first presentation, "Author Fatigue and Click Reduction," was given by Kevin-John Black. He gave a brief overview of bioRxiv (https://www.biorxiv.org)[1] and medRxiv (https://www.medrxiv.org),[2] pointing out how submitting to a preprint server is similar to submitting to a peer-reviewed journal. During the manuscript submission process there is a natural tension between the need to gather useful information from authors and the desire to make it simple for authors to submit their research for consideration. Black pointed out that submission systems can help journal staff accomplish both of these objectives and that, although it can be tempting to utilize these systems to gather lots of information early on in the process, it is best to limit the required metadata to the most basic information needed to conduct an initial peer review, such as title, author list, abstract, and of course, the manuscript file, figures, and tables. Black also discussed a useful feature in the submission system they use, called BenchPress (https://www.highwirepress.com/solutions/highwire-submissions/benchpress),[3] which allows the author to upload a spreadsheet containing all of the author names and their associated data so that the submitting author doesn't have to enter each author's information individually.

Reducing author fatigue isn't just about making the submission process easier, it is also about making other tasks less onerous. Black highlighted several other automated functions that are part of the bioRxiv and medRxiv workflow that reduce author involvement. PDFs are created automatically, using the author's submitted files, and then a vendor creates an HTML version of the manuscript to be posted, without any involvement from the author. The system allows the author to send their preprint on to a participating journal or peer-review service automatically. When a preprint gets accepted and published by a journal, the system automatically updates the record with a DOI link to the version of record through an integration with Crossref (https://www.crossref.org).[4] Another fun feature that helps the author easily direct people to their preprint and published article is the utilization of QR codes, which are generated for any manuscript that is posted on either bioRxiv or medRxiv.

• **QR Codes for Published Papers**

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Virginia Ramsey went second with a presentation called "Author-Friendly Requirements." She first discussed why it is good to limit author requirements during the submission process. Saving the author time shows that you value the author and also recognize that their time is valuable. Similar to Black, Ramsey recommended reducing submission requirements, pointing out that custom questions can complicate the process. For the initial submission, think about which requirements need to be kept and which can be eliminated, and include only the minimum needed for making a first decision regarding publication. She asked several questions: Do you really need references formatted to journal style at this point? Is font size important? Do the authors need to sign all of the forms now? Ramsey suggested that the higher the rejection rate of the journal, the easier your submission process should be. Customize steps for article types; there may be standard steps that are appropriate for original research that just don't make sense for brief reports. Also get editors to weigh in on requirements since they also are authors and can provide insight into the process from the author's perspective. If authors don't invest too much time at the beginning, it reduces the sting of rejection.

It is useful to look at the peer-review requirements and think about the minimal information needed for review. Are you asking for information from the author that doesn't actually get used by reviewers? If so, eliminate it. But don't compromise your review process. If you choose to simplify the submission process by removing some requirements, make sure that you also adjust your peer-review instructions.

Ramsey also recommended utilizing platform features. Her journals use ScholarOne (https://clarivate.com/webofscience group/solutions/scholarone/)[5] and eJournalPress (https://www.ejournalpress.com),[6] which allow nested questions, have autocomplete functions, auto-extract metadata, and allow the administrator to create pre-filled fields. The integration of standardized lists that authors select from, such as CRediT (http://credit.niso.org),[7] Ringgold (https://www.ringgold.com),[8] and Funder Registry (https://www.crossref.org/services/funder-registry),[9] are helpful.

Once you have changed the requirements, let authors and reviewers know about what has been changed and why. In particular, review any forms that might ask for information that is no longer required from authors.

The final presentation, "Improving the Author Experience at the Portfolio Level," by Jonathan Schultz, addressed author-friendly submissions from a broader perspective, which included cross-publication standardization. Historically, the journals of the American Heart Association (AHA; https://www.heart.org)[10] encouraged individual editors and editorial teams to work independently, each developing their own independent requirements; these could include different editorial policies,

author instructions, and submission requirements. However, when the AHA moved to a cascading-workflow model, in which a journal offers authors the opportunity to "cascade" or transfer rejected submissions to another, more appropriate AHA journal, they realized that a more consistent set of policies and requirements would be needed.

This portfolio approach meant that authors needed consistency across the collection of journals and that such a system would also make cascading more efficient. Author instructions and templates had to be standardized, as did editorial policies. Schultz also mentioned that the submission pages in their submission tracking system, eJournalPress, had to be reviewed and simplified.

An efficient cascading workflow relies on standardization throughout the entire peer-review process, not just at submission. Schultz recalled how they needed to standardize article types across journals. They established consistent roles so that people with similar titles had similar responsibilities. Each journal had to adhere to similar peer-review standards. They also established portfolio-wide research and reporting guidelines. Even author and reviewer services had to be handled on the portfolio level so that a consistent message and the same assistance were being provided, regardless of which journal the researcher was dealing with.

Schultz highlighted how author disclosure of conflicts of interest (COI) is one of the most time-consuming and most complained about submission tasks. It is extremely important and also commonplace, especially for medical journals. Authors get frustrated by COI disclosure because they often find themselves repeating information for each journal that they submit to. Schultz introduced a new third-party system called Convey (https://www.convey.org),[10] developed by the Association of American Medical Colleges, which was designed to help save authors time when disclosing conflicts of interest. Convey is a web-based financial disclosure platform that allows researchers to aggregate their COI disclosures in one place, where that information can be maintained and reused. The AHA is rolling Convey out to all of the journals in its portfolio, which should make providing COI information much easier.

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Overlay Journals, Overlay Reviews: Has Their Time Finally Come?

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Cofounder
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The session "Overlay Journals, Overlay Reviews: Has Their Time Finally Come?" was held virtually on May 4, 2021. Moderated by Heather Staines, Senior Consultant at Delta Think, the session featured presentations by Stefano M Bertozzi, Dean Emeritus and Professor of Public Health Policy and Management at UC Berkeley; Gunther Eysenbach, CEO and Executive Editor, JMIR Publications; Samantha Hindle, Content Manager of bioRxiv and medRxiv and Co-founder of PREreview; and Hannah Drury, Product Manager of Sciety at eLife.

COVID-19 has accelerated the use of preprints, and researchers and media are increasingly turning to preprint servers to get an early glimpse at new studies. Preprint servers have come under increased scrutiny, and many have risen to the challenge by implementing various forms of peer review. Another interesting and related phenomenon is the increase in "overlay journals," which use "overlay reviews" to help validate the science in preprints, thus increasing trust and transparency in preprints. If you are unfamiliar with the concept of overlay journals, they are a type of online, open access compilation of preprints, public domain publications, and already-published open access articles. Sometimes the compilations are thematic, addressing specific topics, and often there is a layer of review and commentary (overlay reviews).

Stefano Bertozzi was the first to present, and he defined overlay reviews as "peer review that is not hosted on the same location as the content." As the founding editor-in-chief of Rapid Reviews: COVID-19 (rapidreviewscovid19. mitpress.mit.edu),[1] also known as RR:C19, published by the MIT Press, Bertozzi pointed to the need to accelerate the peer review of COVID-19 science on preprint servers as the genesis of RR:C19. It is primarily a volunteer endeavor, with an editorial office based at UC Berkeley.

Bertozzi described that process. RR:C19 works with COVIDScholar (https://covidscholar.org),[2] a web-scraping tool that uses natural language processing to gather all the COVID-19–related research available on the Internet. RR:C19 groups COVID-19 preprints into five categories: Medical Sciences, Biological and Chemical Sciences, Physical Sciences and Engineering, Social Sciences and Humanities, and Public Health. A team of Ph.D. students screens the selected manuscripts, looking for novelty, impact, significance, urgency, and media interest, and they select and sort those manuscripts to be peer-reviewed. Assistant editors manage these different domains and distribute the preprints to peer reviewers with the help of artificial intelligence. The peer reviewers write up reports, which are posted along with links to the preprints on the PubPub platform (https://www.pubpub.org/),[3] a project of the Knowledge Futures Group. The entire process is more transparent than regular peer review, especially since authors can respond to the reviews, and traditional journals that are considering publishing the research can also see and utilize those reviews.

Gunther Eysenbach presented second, introducing the concept of the "superjournal," which is a type of overlay journal that sits on top of preprint servers. Superjournals offer the same services that traditional journals offer, such as peer review, copyediting, archiving, and indexing. The difference is that authors explicitly opt in to be reviewed and actively revise their preprint manuscript according to reviewer comments. JMIR's superjournal, JMIRx (https://jmirx.org/home),[4] is the first overlay journal indexed by PubMed and is made up of three sub-superjournals, JMIRx|MED, JMIRx|Bio, and JMIRx|Psy. JMIRx focuses on preprints that have not yet been submitted to a journal for publication.

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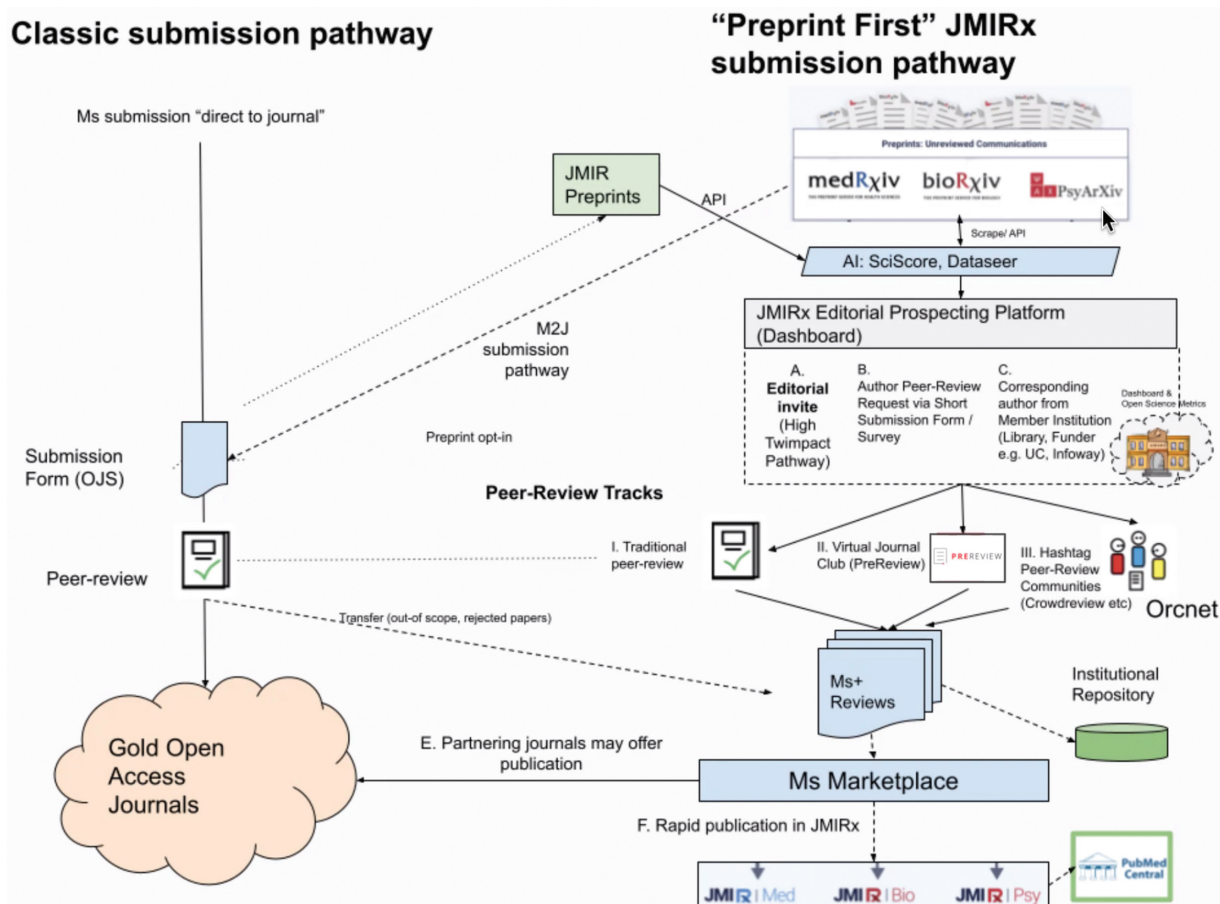
Eysenbach described that process. JMIRx editors scan through preprints on medRxiv, bioRxiv, and PsyArXiv, looking for interesting and novel research, and extend offers to the authors of the preprints they select using an online survey. The editors then solicit peer reviews, which can take various forms, based on the preference of the author, such as traditional review, crowd-sourced review, or "journal club" review, which is a transcribed conversation held by interested readers. Authors have the opportunity to revise their article on the basis of the feedback and post that article back to the preprint server. Once peer review has been completed, the manuscript is put into the "Ms Marketplace," where the author can choose to have it published in one of JMIR's journals or pushed out to a partner journal, where the article might go through additional review. In the end, all manuscripts can be published by JMIRx if they are not picked up by another journal.

The third presenter, Samantha Hindle, discussed PREreview, which is an initiative that provides tools, training, and support to early-career researchers and underrepresented scholars to build their peer-reviewing

expertise, thus empowering them to engage in community review. This training is accomplished with the use of the PREreview platform (https://www.prereview.org),[5] where researchers can individually or collaboratively review preprints, engage in crowdsourced peer review of preprints through facilitated live-streamed preprint journal clubs, and gain support through an interactive four-stage training program called the PREreview Open Reviewers program.

Hindle described the features of the PREreview platform and its two community-building programs: facilitated live-streamed preprint journal clubs and the Open Reviewers program. A user who registers with PREreview can perform several tasks: (1) perform a rapid review using a questionnaire that includes a graphical comparison with other reviews of that article; (2) perform a traditional review independently or with others; (3) comment and endorse other reviews; and (4) report others who have violated the code of conduct. PREreview also provides opportunities for researchers to discuss preprints collaboratively by facilitating live-streamed preprint journal clubs; the output is a collaborative review that can be integrated into the peer-review process

PREreview Open Reviewers Program

and published on the PREreview platform. The Open Reviewers program, which is focused on supporting early-career researchers, consists of both cohort-based and self-guided training. There are four stages of engagement, and reviewers can participate at any stage according to their level of experience. The 14-week cohort-based program includes interactions between reviewer trainees and mentors, community calls, strategies for evaluating articles, and training as a future mentor. The 8-month self-guided program is for advanced reviewer trainees and includes resources such as videos and written guides. The ultimate goal of the program is to increase diversity in peer review and to train the next generation of socially conscious reviewers.

The fourth and final speaker, Hannah Drury, discussed a new initiative started by eLife called Sciety (https://sciety.org).[6] Similar to PREreview, Sciety's mission is to build a network of peer reviewers focused on evaluating preprints; and similar to RR:C19, Sciety is facilitating others to perform their own processes however they wish, gathering preprint evaluations from multiple sources in one place. Drury provided a demo of the software, showing how it aggregates reviews from across different preprint review services, including Novel Coronavirus Research Compendium, PREreview, PeerJ, Review Commons, eLife, and Peer Community In. In addition to seeing the aggregated reviews, users can also access different versions of the article, rate the evaluations, and tweet about the article. It is early days for Sciety, and more features and review services are likely to be added in the future.

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Two Roads Diverged: Career Paths in Scholarly Publishing

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The purpose of this session was to explore the variety of roles in scholarly publishing and discuss career development. Moderator Emma Shumeyko led a conversation among 4 experienced professionals: Midori Baer, Director of Publishing Operations at PLOS; Jasmine Wallace, Peer Review Manager at the American Society for Microbiology; Michele Springer, Editorial Manager at Caudex; and Brian Coughlin, Publisher at Wiley.

The session began with Shumeyko asking the panel, "How did you find out about scholarly publishing? How did you get here?" The speakers acknowledged that they mostly "fell" into the industry, coming from journalism, freelance editing, teaching, and other types of publishing, searching for a career that aligned with their skills and interests. Those that started out in nonfiction book publishing and newspaper publishing switched to scholarly publishing because of the pace of the environment and the ability to track deliverables. However, it can be difficult to figure out a career path within scholarly publishing without finding a mentor or exploring new opportunities.

Several of the speakers have transitioned from production to editorial roles over the course of their careers. This created valuable discussion, as these different parts of scholarly publishing often function in silos, making such career transitions challenging. Brian Coughlin suggested that to facilitate connections between these silos, publishers can form "journal teams" composed of representatives from each silo. Members of these teams can then get to know each other's goals for the journal and determine how to work together. Midori Baer mentioned that apps such as Donut,[1] which works through the communication platform Slack, pair staff members for cross-departmental conversation. It's important to understand what happens in each space and what skills are desirable for specific roles. An upstream culture shift toward collaborative objectives and cross-functional engagement can help bridge gaps. Personal drive is also needed to create career opportunities. Don't be afraid to ask someone about their job—people in scholarly publishing usually enjoy talking about what they do—or ask to be included on projects that aren't necessarily part of your job description.

Another topic touched upon in this session was the ambiguity of job titles in scholarly publishing: the same title at two different organizations can represent two very different roles with unique duties and levels of responsibility. In addition, the industry is constantly changing, which forces roles to evolve quickly. As such, Shumeyko asked the speakers what they *actually* do on a day-to-day basis. Each speaker described a wide variety of tasks from overseeing staff to consulting on workflow efficiency to meeting with societies, as well as other duties that expand their job descriptions. For career advancement, the types of experience and projects that someone has worked on are generally more important than their job title or the number of years they've worked in the field. Baer suggested ignoring job titles altogether and focusing on resumes and job descriptions to understand what the experience truly is and find a good fit in a role.

Shumeyko concluded the main session by asking each speaker what aspects of their work surprise them. They discussed that technology seems to develop slower in publishing than in other industries, which sometimes makes it difficult to accomplish things easily. Different publishers have similar challenges, but they can learn from each other, so networking and global collaboration are essential. The panel also agreed that for a process-based industry that relies heavily on workflows and checklists, the work is surprisingly different every day. Michele Springer remarked that many people outside the industry imagine editors with a red pen in hand all day, but she spends only 50% of her day editing, with the remainder spent managing projects, liaising with external clients, and championing best practices. Jasmine Wallace noted that it's important to be adaptable and gave a personal example of needing to learn data analysis in her position as Peer Review Manager. Appropriately, the image chosen for the 2021 CSE Annual Meeting was a chameleon, symbolizing the adaptability needed for all roles in scholarly publishing.

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Following the session, an audience question and answer period covered other topics related to career advancement. When seeking a new position, it's beneficial to have a variety of skills, but focusing on the area you enjoy the most can help direct your search. When asked whether an advanced degree or certificate is needed, Wallace (who has a Master of Professional Studies in Publishing) explained that a master's degree helped her navigate the space of scholarly publishing, as it provided insight into aspects of the industry that she otherwise hadn't experienced, and it was valuable for networking; however, an advanced degree is not necessary for career progression. The panel agreed that courses in project management are useful, as there is a growing need for effective project managers.

Those interested were referred to the session "Project Management Fundamentals for the Editorial Office" from the 2020 CSE Annual Meeting.[2]

The final advice from the speakers was to give yourself time to learn when moving to a new position or organization—everyone understands what it's like to start in a new environment—and be confident in yourself. Don't be afraid to ask questions and create your own opportunities.

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Fire of the Week: Maintaining Editorial Independence

Emilie Gunn

There is little else in scholarly publishing as sacrosanct as the idea of editorial independence. Put simply, this concept guarantees that the editor-in-chief alone, and not the publisher, decides what the journal will publish.[1] Editorial independence ensures transparency in decision making and allows the journal freedom to decide to publish what they believe to be most useful to their field, and not what the owners of the journal are directing them to publish. In the case of society-owned journals, it prevents the journal from becoming the de facto mouthpiece of the society.

But what happens when that independence is threatened? As journal editors, we understand the divide between ourselves and, for example, our society's board of directors, but the reverse is not always true. It may fall to us at times to educate others when their requests of the journal overstep the boundary. It may mean stressing to our editor-in-chief that it is important to maintain a good relationship with the board of directors. It may also mean gently explaining to the board that they cannot dictate what the journal publishes. It can be a tricky situation to navigate judiciously.

In this installment of Fire of the Week, we will hear about a situation in which editorial independence was threatened, and how the editor worked to preserve the independence of a journal from its society board of directors. The situation has been kept anonymous, which is why no names are shared.

Describe the "fire." Why was the situation unique or challenging?

We have a new editor-in-chief who, by his second month in this role, already had some interpersonal conflict with the society's CEO and board of directors' leadership. The editor was unhappy about a decision the board made regarding one of the society's journals, and he planned to announce this decision to the readership via an editorial. While the CEO and board expected the editor to be supportive of the

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decision, the editor saw his announcement as an opportunity to voice his strong opinion against the decision. The CEO and board interpreted this as the new editor not being "on the same team" as society leadership and wanted the editor's messaging to support their decision.

The editor wrote an editorial that started off with criticism of the board's decision, then transitioned to a message of acceptance of the decision and a call for ideas to move forward in a new direction. Staff, who by this point had been trying to mitigate conflict between a vocal and very unhappy group of editors and the board and senior leadership over this decision for several weeks, was asked to share an early draft of the editorial with the CEO and president for their review.

Where did you go/what resources did you utilize to arrive at a solution?

Knowing that it includes advice on editorial independence, I immediately searched the Council of Science Editor's (CSE) White Paper on Publication Ethics, section 2.5, "Relations between Editors and Publishers, Sponsoring Societies, or Journal Owners."[2] As recommended in this section, our journals publish a "disclaimer indicating that material published in the journal does not represent the opinion of the publisher, sponsoring society, or journal owner"[3] in every issue's masthead. Sensing that society leadership wanted to step in and overrule what the editor might say in his announcement editorial, I reiterated to my supervisor, the CEO, and the president that we have a policy of editorial independence, and sent them the relevant text from the White Paper. I also sought advice via the CSE listserv and received some good input.

How did you resolve the problem? What was the outcome?

Once I had the draft editorial in hand, I suggested some edits to the editor to soften the language in a few places

where I anticipated society leadership would take issue. I explained my reasoning for each edit, reminding the editor that he did not have to accept my changes because he has editorial independence from the society. Especially with him being new in the editor-in-chief role, it was important for me to build trust with him and remain as neutral as possible while also trying to ameliorate the conflict. As a new editor, this was a situation he had not encountered before, so it fell to me to coach him in that delicate balance of maintaining a good relationship with the board while remaining editorially independent.

He accepted my edits except for one opinion sentence. The sentence was a bit harshly worded for the society staff and did not represent our view, but we were satisfied that the editor compromised and felt it critical to allow him to state his opinion.

I passed along a final draft (post-edits) to the CEO and president, who then called a private meeting with the editor. I again asked the CEO and president not to request any changes to the editorial, warning that doing so would violate editorial independence, which would reflect poorly on the society and damage the journal's reputation. Prudently, they agreed. The president rushed to post a preemptory announcement to the membership, so the society's official message would be public before the objectionable editorial. The editorial then published without much fanfare.

Unfortunately, the following month, a scientific editor reiterated the same opinion in another editorial in a sister journal. Staff had concerns but published it, too, this time without opposition from senior leadership.

What other possibilities did you consider? Why did you decide against those?

There weren't viable alternate options; we must uphold the principle of editorial independence. The integrity of a journal is based on the intellectual exchange between authors and readers, orchestrated by editors without pressure or influence from the journal's owners. Allowing the board to interfere with the workings of the journal would prevent the journal from being perceived as unbiased.

We did consider adding a disclaimer alongside the editorial stating that the editor's view is not necessarily the view of the society but ultimately felt that would draw more unwanted attention to the conflict between this group of editors and society leadership, and so decided against it. We felt that our standard catch-all disclaimer in every issue's masthead was sufficient.

Will you change any of your policies or day-to-day procedures based on this occurrence?

I think the Board realized that they should have communicated their controversial decision earlier, more clearly, and directly with stakeholders, which would have softened the blow and potentially avoided conflicts and months of repeated flare-ups of this fire. If a similar situation were to happen in the future, I would be more vocal in pushing for board leadership to talk directly to stakeholders instead of leaving staff to break bad news to the (member, volunteer) editorial board.

Do you have advice for others facing the same situation?

Rely on published best practice resources such as CSE's White Paper, the Committee on Publication Ethics, and others to aid your decisions and bolster your arguments to your superiors when conflicts like this arise. Often, senior society leadership is not familiar with the nuances of scholarly publishing ethics, so it's important to be well versed in guidelines from recognized expert organizations. Educate them, link to relevant resources, make them understand why the journal's reputation stands on following those best practices, and if necessary, stand between the editor and society leadership to protect editorial independence, uncomfortable as it may be.

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Surviving the Curve: Tips for Handling Data Display

Stacy L Christiansen

Handling data displays for both new and seasoned editors can sometimes be tricky. There are standards or expectations for certain figure types. While not all editors are responsible for, or have the ability to, substantially edit figures and tables, most editors can make suggestions or pose queries to help ensure that data displays are accurate, complete, and clear. Herein is a brief primer on one of the most common figure types in the medical literature, including a short checklist that might be useful before acceptance, during figure creation, or incorporated into a journal's instructions for authors.

We've all seen the figures—the 2 (or more) lines snaking upward (or downward) across a plot, called Kaplan-Meier or survival curves. So, why are they called "survival" curves? In this context, survival could be literal (mortality in study participants over the course of treatment) or it could mean the occurrence of a particular outcome over time, but not necessarily death (e.g., disease recurrence, a particular symptom). The main goal of this type of data display is to show differences in survival/event occurrence between groups (e.g., between those assigned to a new agent vs. placebo in a clinical trial).[1]

Survival curves are often used in reporting major outcomes in studies; they are big-picture data displays. These plots are good for showing overall change over time, but not specific differences at discrete points.[2]

The curves themselves aren't smooth as the term implies; they are a series of horizontal steps. In fact, some journals provide guidance to authors that the curves should be produced using a step function (not smoothed) when output from the statistical software program.

In these figures the outcome of interest is represented on the y-axis, and time is represented on the x-axis. The axis scales should be slightly larger than the range of values being plotted, so that the data are fully contained in the plot and take up most of the area.[3]

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One thing authors and editors need to consider is the directionality of the curves: should the lines go up or down? A survival plot going down displays the proportion of patients free of the event (which of course declines over time), whereas a plot going up shows the cumulative proportion experiencing the event over time. In principle, both contain the same information, but the visual perceptions can be quite different.[4]

When the outcome of interest is relatively frequent (e.g., occurs in approximately ≥70% of the study population), event-free survival may be plotted on the y-axis from 0 to 1.0 (or 0% to 100%), with the curve starting at 1.0 (100%), i.e., at the top. When the outcome is relatively infrequent (e.g., occurs in <30% of the study population), it may be preferable to plot upward starting at 0 so that the curves can be continuous without breaking the y-axis scale, or so that the y-axis can be truncated before 100.[5] Some might argue that the full scale (0–100) should always be included, but this may impair the ability to discriminate between treatments,[3] especially if there are few events (which would crowd the curves at the top of the plot).

Some figures include placement of small vertical ticks on the curves to mark when individuals have had data censored due to withdrawal from the study, loss to follow-up, or remaining alive without event occurrence at last follow-up. If possible, label the curves directly instead of using a key, which enables readers to more quickly identify which line reports data for which group.

The extent of follow-up should be explained—e.g., by listing at regular intervals under the x-axis the number still in the analysis in each treatment group (i.e., "No. at risk"). Time-to-event estimates become less certain as the number of individuals diminishes, so consider ending the plot when a predetermined proportion is still in follow-up (e.g., 20% or 10%).[5] Also, the mean or median length of follow-up for each group should be provided, either in the plot itself or in a figure legend.

Plots should include some indication of statistical uncertainty, such as error bars on the curves at regular time points, shading of 95% CIs, or an overall estimate of treatment difference, such as a relative risk or hazard ratio (with 95% CI) and/or log-rank *P* value. This information can be placed within the graph and/or in the legend.[5]

The example Figure herein illustrates the main components and requirements of a survival curve, and the checklist offers some guidance when building, editing, or reviewing these figures.

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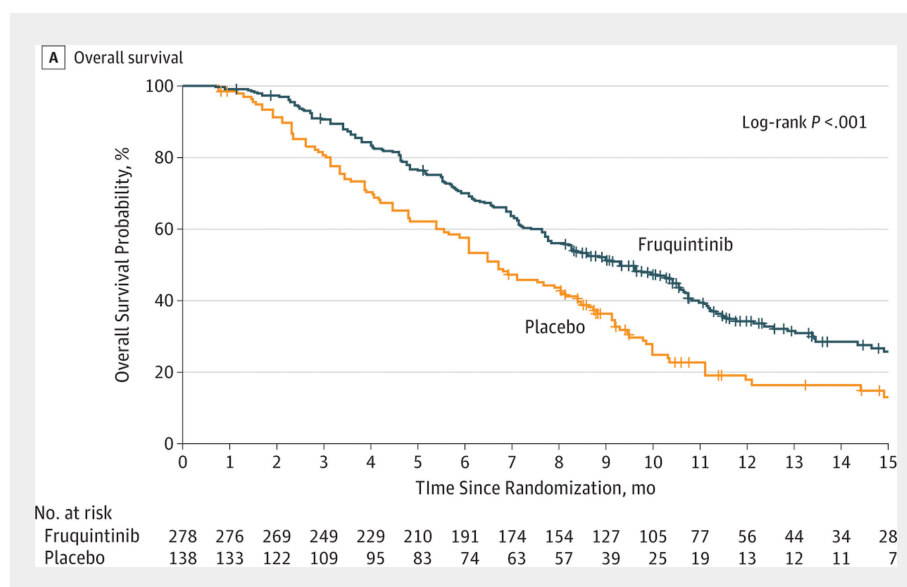
The median follow-up time was 13.3 months (95% CI, 12.1–14.7) for the fruquintinib group and 13.2 months (95% CI, 10.6–19.6) for the placebo group. Tick marks on the curves denote the last known follow-up time for patients with no death date reported. At the planned cutoff date (January 17, 2017), after 297 deaths, the median overall survival was 9.3 (95% CI, 8.2–10.5) months in the fruquintinib group and 6.6 (95% CI, 5.9–8.1) months in the placebo group (HR for death, 0.65 [95% CI, 0.51–0.83]). Republished with permission from *JAMA*.[6]

Checklist for Survival Curves

- Two variables are plotted, with the outcome of interest on the y-axis and time on the x-axis
- Decide if the data should be plotted going up or down
- Tick marks divide the x-axis at regular intervals and the mean or median length of follow-up is provided either in the plot or in the legend
- Data indicating number of participants left in the analysis ("No. at risk") should be included for all groups, ideally aligned with the tick marks at major time points
- Include a measure of statistical uncertainty: error bars, shading, or reporting of RR/HR and 95% CI and/or appropriate *P* value

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The Care and Feeding of Your Social Media Accounts

Jennifer Regala

Note to readers: In this column, I share with you some tips and tricks about how to select and then nurture the social media accounts you use professionally. I must be transparent about why I chose this topic. After intense back-and-forth negotiations with Jonathan Schultz, Editor-in-Chief of Science Editor, *I was able to secure his promise for publication of a photo of my beloved canine bestie, Scotty Regala. In exchange for including a Scotty pic in my column, Jonathan asked me to write about "The Care and Feeding of Your Social Media Accounts." I am hoping that if this column knocks his socks off, perhaps I can sneak in 2 pictures of Scotty. Here goes.*

Are You Ready for a Dog?

It's an important question. Dogs are the best, but they're not easy. Walking them, brushing them, feeding them, snuggling them. Dogs are not a set-and-forget situation. I must confess that I didn't really want to get a dog, and it's not because I don't love dogs. I already have an amazing husband, 4 awesome kids, and a demanding job that I love so much it hurts. How on earth would I find room in my heart for a dog? (Side note: My cavapoo entered my life in April 2019, and I am officially a weird dog mom who overshares dog pictures, talks about him way more than is appropriate, and talks to him in a secret language that only he and I speak. I am who I am.)

Social media accounts are not much different. If you start an account, you need to lavish love and attention on it. That account is not going to grow itself. You need to decide who you will follow, the voice and style you will use (see my previous column on this subject for guidance),[1] and most importantly, why you are doing it. Are you committed to the care and feeding of this new account?

It's also important to understand who this account is really for. Let's just pretend you are going to start a Twitter

Scotty Regala, Jennifer Regala's beloved dog, wrapped in the family's favorite blanket, which Scotty has first right of refusal to use.

account for one of your journals (assuming, of course, that you have the necessary permission from your organization and editorial board). What do you need to do next to take care of your new dog, um, I mean Twitter account?

Things Are Getting Real!

It's go time. You have buy-in from the powers that be. Authors are chomping at the bit to get their papers widely disseminated. What now?

Remember when I said you can't set-and-forget a dog? You can't do that with your journal's Twitter account, either. But, just like you can set out extra water and leave out extra kibble for a furry friend, you can set a few things on autopilot for your new Twitter account, too:

- Develop an editorial calendar for tweeting every article in every issue of your journal. Don't leave anyone out. Every article gets a tweet. You can even have your authors self-write these tweets if you request wording

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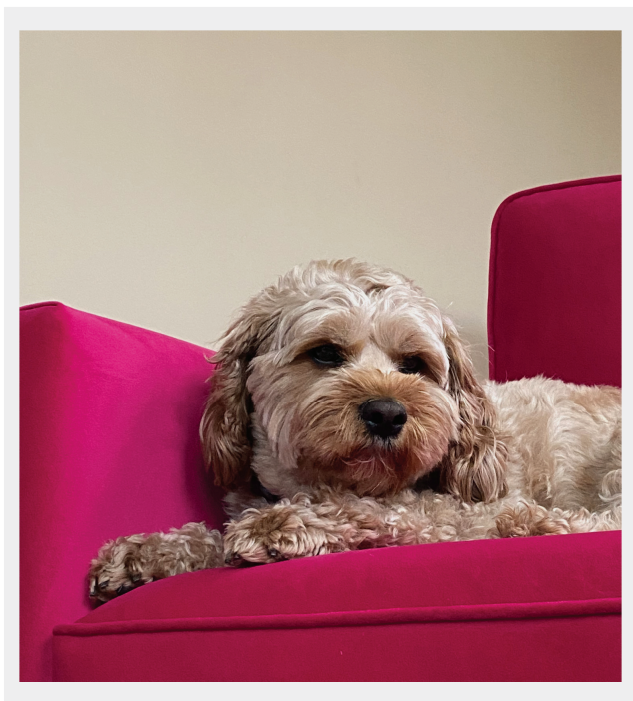
Scotty enjoying Jennifer's new hot pink office chair. He's the only person in the family allowed to sit on it.

when you send an acceptance letter. While you're at it, collect authors' Twitter handles, too, so you can give them a shout-out when you tweet about their article.

- Develop a large, evergreen collection of "assets." Collect a big folder of social media "assets," which are appealing visual images to accompany a tweet, to highlight initiatives your journal is promoting. Open access? Author services? Sign up for eToC alerts? Here's your chance to market your journal! Set your marketing campaign monthly as part of the editorial calendar.

The rest isn't quite this easy. Sure, these two items will create a lot of content, but you want people checking your account each and every day to make sure they aren't missing anything exciting. Here are some ways to engage meaningfully with your intended audience:

- Who is your audience? Figure that out and start following people: your authors/editors/reviewers, other journals, and anyone who might be interested in your journal's mission. Then, think about how you can help amplify messages of your important stakeholders. Maybe you see an author tweeting about a recent research success. Hit that retweet button!
- Respond to people who engage you. Unless it's a rude or disrespectful message, you should answer. Is someone asking where their print journal is? What

your submission turnaround times are? What's your rejection rate? Be transparent and answer as often and as honestly as you can.

- Be on the lookout for opportunities. The problem is, I can't tell you exactly what you're looking for here; however, I can give you an example. Recently, a first author reached out to say that he had created a visual abstract for his paper. When I saw it, I was flabbergasted. This visual abstract was brilliant. Perfect graphics, well written with minimal yet clear wording—just an ideal specimen. I asked his permission to allow our social media manager to tweet the abstract. Then, he ended up writing instructions for other authors to create their own visual abstracts, which we added to our Web site and have added to our social media rotation. Now, he has agreed to create a webinar on this topic. Don't be afraid to reach out and ask for creative input from your own audience!
- Request videos and photos from your audience. Ask a group of authors to share a photo of themselves posing with their article. Ask a top reviewer to film a quick video on how to be a good reviewer. The possibilities are endless, and you'll be surprised at how many people will agree to help you.

And While We Are All Here Chatting…

And because I need to figure out how much care and feeding I may or may not want to give to yet another social media tool, I need to ask: Are any of you on Clubhouse?

According to the App Store, "Clubhouse is a space for casual, drop-in audio conversations—with friends and other interesting people around the world. Go online anytime to chat with the people you follow, or hop in as a listener and hear what others are talking about."

I started seeing scholarly publishing colleagues and members of the American Urological Association (AUA) buzzing about this app on Twitter. I didn't give it much thought until I went to the monthly AUA meeting of our online content editors, who work to guide the social media strategy and content for our peer-reviewed journals, *The Journal of Urology*® and *Urology Practice*. The online content editors were interested in the possibility of starting a journal club on this platform. Next thing you know, my colleague is sending me an invite (yes, a member needs to send you an invitation; each member has a limited number to share), and I'm exploring the great unknown of a new-to-me app. The drawback is that only iPhone users can access the app. The upside is that there are more people on there than you might think. I found science editors, urologists, real estate agents who work with my husband—you name it. I can best describe it as a living and breathing podcast where one can lurk or participate or do a bit of both.

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I can see how Clubhouse will be very useful when it is more widely accessible and doesn't require an invitation. But will it take off? I'm not sure if I have room in my life for another "pet" right now, but I'll keep you posted. Let me know how you're using this tool or any other new platforms for personal or organizational business purposes. Perhaps you're piloting Twitter Spaces, which is quite similar to the premise of Clubhouse! Tell me more!

Parting Thoughts in the Hopes I'll Earn a Second Scotty Photo

Just like deciding whether you can handle a first pet and/or plant and any subsequent furry/feathered/scaly/leafy additions, give that same thought to your social media accounts. Do you have time to feed and water and nurture and love on those accounts? Just like a pet or a plant, you get what you give when it comes to your social media presence.

Reach out to me with your social media success stories, your failures, and your favorite tips and tricks. I would love to feature input from my colleagues in a future column. Find me on Twitter @JenniferARegala or email me, JRegala@AUANet.org. I look forward to hearing from you!

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Gatherings of an Infovore*: Coping With More Than the Pandemic

Barbara Meyers Ford

Finding a new word in an article is a real treat for an infovore. So, when I came across "infodemic" in a recent *Scientific American* article, I immediately wanted to research where it came from. As is often said, "There is nothing new under the sun." This was indeed true of this "new" word.

The first several entries I found about this "neologism" attributed it to David Rothkopf writing in a May 2003 *Washington Post* article. Rothkopf argued that an infodemic was making the current outbreak of the SARS virus "harder to control and contain." I thought that it was quite appropriate for the term to be resurrected and even more appropriately applied to the global dissemination of information concerning COVID-19.

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BUZZWORD infodemic
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Managing the COVID-19 infodemic: promoting healthy behaviours and mitigating the harm from misinformation and disinformation
WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC l 23. September 2020.
https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation

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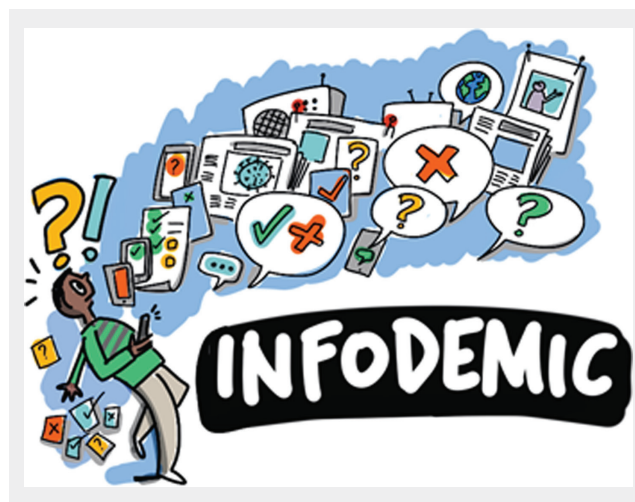

Credit: WHO/Sam Bradd.

Let's flatten the infodemic curve
World Health Organization.
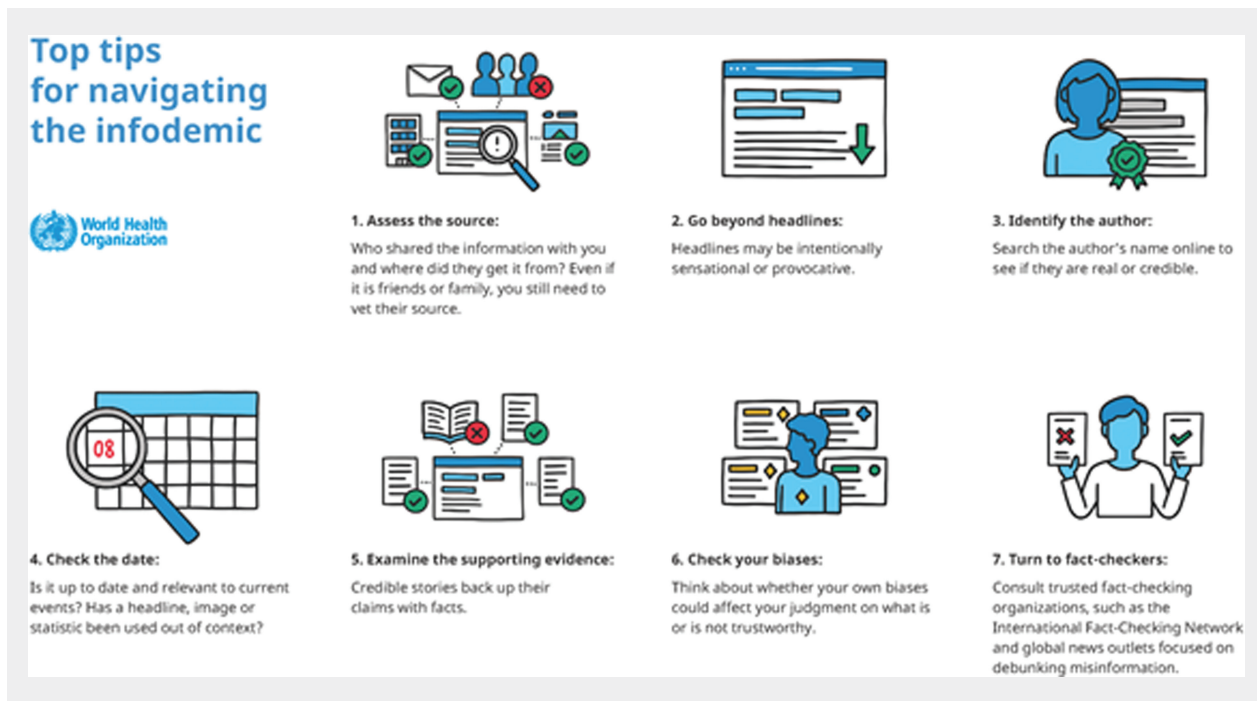https://www.who.int/news-room/spotlight/let-s-flatten-the-infodemic-curve

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Credit: WHO.

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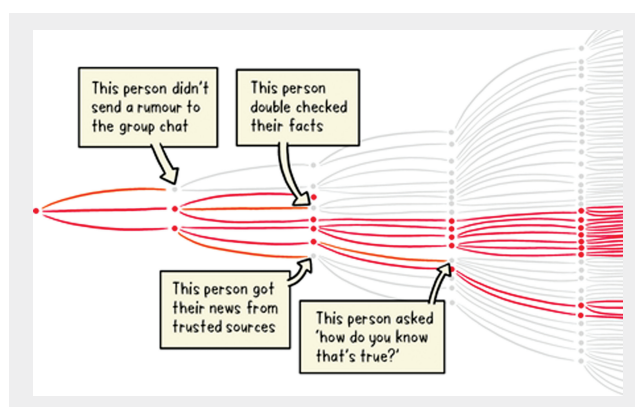
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Barbara Meyers Ford has retired after a 45-year career in scholarly communications working with companies, associations/societies, and university presses in the areas of publishing, and research. If interested in connecting find her at www.linkedin.com/in/barbarameyersford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

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