SCIENCE EDIENCE Source Regenerations

A PUBLICATION OF THE COUNCIL OF SCIENCE EDITORS

IN THIS ISSUE:

NEW AUTHOR GUIDELINES FOR PROMOTING OPEN AND FAIR DATA PERSPECTIVES FROM A SCIENTIST EDITOR DIVERSITY AND INCLUSION IN THE EDITORIAL PROCESS

The Spirit of Scientific Publishing

INCLUSION, IDENTITY, TECHNOLOGY, AND BEYOND

Columbus

2019 CSE ANNUAL MEETING MAY 4-7, 2019

HYATT REGENCY COLUMBUS COLUMBUS, OH

SAVE THE DATE! MAY 4-7, 2019



CouncilScienceEditors.org

WHAT TO EXPECT IN 2018

THE

- Keynote session given by **Marjorie M.K. Hlava,** President, Access Innovations, Inc.
- Plenary session given by Bernadette Melnyk, PhD, APRN-CNP, FAANP, FNAP, FAAN, Vice President, Health Promotion, University Chief Wellness Officer, Professor & Dean, College of Nursing, The Ohio State University
- 32 breakout session offerings, providing world-class education and content
- Many networking and social opportunities to meet and interact with other industry experts
- And so much more!

FULL MEETING INFORMATION COMING SOON!



WINTER 2018 VOLUME 41 • NUMBER 3

www.CSEScienceEditor.org

EDITOR-IN-CHIEF Jonathan Schultz

MANAGING EDITOR Beverly Lindeen

> **COPY CHIEF** Jessica LaPointe

TECHNICAL EDITOR Leslie F. Neistadt

BOARD LIAISON Tony Alves

ADVISERS

Patricia K Baskin Barbara Gastel

EDITORIAL BOARD MEMBERS

Mary Billingsley Dana Compton Lyndsee Cordes Sherri Damlo Wim DHaeze Michael Fitzgerald Lindy Gervin Lisa Lunt Anna Jester Angel Magar Barbara Meyers Ford Erin Nvren-Erickson Resa Roth Rebecca Seastrong Brittany Swett Lenny Teytleman Michelle Yeoman

COMPOSITION SERVICES Aptara, Inc PRINTING AND BINDING Allen Press, Inc MANUSCRIPT TRACKING Aries Systems, Inc

BOARD OF DIRECTORS PRESIDENT Anna Jester PAST PRESIDENT Sarah Tegen PRESIDENT ELECT Dana Compton VICE PRESIDENT Carissa Gilman SECRETARY Mary Billingsley TREASURER Tony Alves TREASURER ELECT Glenn Landis

> **DIRECTORS** Jennifer Deyton Amy McPherson Mary Beth Schaeffer

EXECUTIVE DIRECTOR Tim Bennett **MANAGEMENT LIAISON** Ralph Vasami



VIEWPOINT

74 Dispatches from a Black Box Jonathan Schultz

FEATURES

- 76 Summary of the African Journal Partnership Program (AJPP) Annual Review and Planning Meeting, 2018 Rashid Ansumana and Annette Flanagin
- **78** A Science Editing Workshop and a Medical Communication Conference: Highlights for Science Editors *Barbara Gastel*
- 83 Data Sharing and Citations: New Author Guidelines Promoting Open and FAIR Data in the Earth, Space, and Environmental Sciences Shelly Stall, Patricia Cruse, Helena Cousijn, Joel Cutcher-Gershenfeld, Anita de Waard, Brooks Hanson, Joerg Heber, Kerstin Lehnert, Mark Parsons, Erin Robinson, Michael Witt, Lesley Wyborn, and Lynn Yarmey
- 88 My Words or Your Words? Detecting and Investigating Plagiarism Nancy R. Gough

EDITOR'S PERSPECTIVES

91 Perspectives from a Scientist Editor Brooke LaFlamme

CASE REPORT

 93 Advancing Science through Diversity and Inclusion in the Editorial Process:
A Case Study Monica Rivera Mindt, Robin C. Hilsabeck, James Patrick Olsen, Micah J. Savin, Cara L. Crook, and Yana Suchy

ANNUAL MEETING REPORTS

- 97 Knowledge Exchange: Roundtable Discussions Emily Johnson
- 98 Short Course on Publication Management Ken Heideman
- **100** How to Do Editorial Research Mary Warner

DEPARTMENTS

- **103** Gatherings of an Infovore Barbara Meyers Ford
- **105** Book Review: Cord Dork Michael Friedman

On the cover: Time lapse (ISS040E117497 through ISS040E118044) Earth observation taken during a night pass by the Expedition 40 crew aboard the International Space Station (ISS). Photographer: Alex Gerst. Source: National Aeronautics and Space Administration (https://images.nasa.gov/ details-iss040e117958.html). A special thanks to Joan Buhrman and Travis Frazier of the American of the American Geophysical Union (AGU) for suggesting this cover image. To read about a recent initiative to create "New Author Guidelines Promoting Open and FAIR Data in the Earth, Space, and Environmental Science" see the article by Stall et al. on p. 83.





Copyright © 2018 by the Council of Science Editors Inc. Opinions expressed by authors contributing to this publication are those of the authors and do not necessarily reflect the opinions or policies of the Council of Science Editors Inc or the Editorial Board of Science Editor. For more information visit **CSEScienceEditor.org**.

Dispatches from a Black Box

Jonathan Schultz

For authors, the scientific editing process has always been a bit of a black box: Authors submit a manuscript, wait a few weeks, and then receive a decision. *Science Editor* and many, many others over the years have tried to shed light on the peer review and editing processes, and a good editorial team will be as transparent as possible, but it's a process that all but invites speculation.

So inspired by an article in *Publisher's Weekly*,¹ I have started a list of 5 things many science journal editors and staff wish authors knew about editors and the editorial process. Of course, these aren't universal truths, but I think they address common misconceptions many authors share:

- 1. Editors are not publishers. Especially on social media, I have seen a number of people write that peer review is done "for the publisher." I guess this is true in a sense because the editor works for a journal or publication that may be owned or published by a publisher, but in another sense, it's misguided. There are thousands of science journals and publications and the editors at those journals don't necessarily embody the priorities and values of the handful of publishing companies. Likewise, editorial independence allows for very little, if any, meddling from publishers in the work of editors, so while both are important components of the scientific publishing process, they are by no means in lockstep or interchangeable. Not convinced? Just ask an editor to give their thoughts about their publisher off the record...
- 2. Editors typically work with a team and a staff. Even midsize journals receive hundreds, if not thousands, of submissions a year, and while it is flattering that authors many times assume that the Editor-in-Chief personally handles every aspect of every manuscript, it's simply not possible. Behind every EIC can be dozens of deputy, associate, consulting, managing, copy, and production editors (and more) all working on various aspects of a manuscript as it moves through the review process and beyond. So while a good EIC will be aware of the process and engaged with most aspects, at least on some basic level, they can't personally respond to every author query. So authors: Please don't email EICs personally when you have a problem with your submission.

- **3. Editors make decisions, not reviewers.** This feels like a classic—and it seems like something that should be common knowledge by now—but many an author still will base a letter of appeal on the assumption that the job of the editor is to impassively take an average of the reviewer feedback. Two out of three reviewers liked the article, so it has to be accepted, right? A good editor is doing much more than that: taking into account the quality of the reviews, any confidential comments to the editor, the scope and priorities of the journal, and much more. Reviewers are a vital part of the process, no doubt, but in the end, the editor is the person making the tough calls.
- 4. No editor wants to reject a revision. As an author, it's tough to have spent the time to address all of the editor and reviewer concerns raised during first review, only to have a manuscript rejected at the revision stage. However, authors should know this is never an easy decision. Editors, and reviewers too, have taken the time to review multiple versions of the manuscript, so there is no joy in not being able to take it across the finish line. Ideally, a rejection of a revision should not come as much of a shock, as a good editor will have laid the groundwork in the initial decision letter, explaining exactly what needs to be in a successful revision.
- 5. Editors want to see and publish great science. I would hope this is self-evident, but it's worth repeating that editors are editors not because they enjoy sending rejection letters, but because they want to publish great science. Authors and editors may disagree about the merits of an individual article, decision, or even word choice, but in the end, everyone from the EIC to the copyeditor wants to be part of a process that publishes groundbreaking research; that discovers that next big thing; that helps promote unheralded researchers or labs; that improves the quality of scientific literature; that, even in a little way, helps to improve the world.

This list is mostly focused on Editors-in-Chief, but I'm sure there are many other things, from a range of editor types, that journal editors and staff wish authors knew. I invite our readers to send the common misconceptions they encounter in their work to scienceeditor@councilscienceeditors.org and we'll publish the best ones we receive.

As with every issue of *Science Editor*, many of the articles in this current issue fight common misconceptions by addressing them head on, by providing new information, or by sharing tips and techniques for others.

In her Perspectives article, Brooke LaFlamme, Chief Editor of *Communications Biology*, describes her transition from bench scientist to full-time editor and provides a succinct rebuttal to the myth of the professional editor as a "failed scientist." Since most PhD students will not find a career in academia, I hope this article will inspire others to consider science editing as an option.

In another article, Nancy Gough, a professional associate editor at *Science's STKE* (now *Science Signaling*), gives her insight into detecting and addressing plagiarism. It's clear that some authors are unaware of the standards regarding plagiarism—particularly self-plagiarism—which makes sense considering the standards can shift over time and between disciplines and countries. As she notes, similarity detection software works well, but many instances require the keen eye and nuanced mind of an experienced editor.

One seemingly prevalent assumption is that as the United States and many other countries become more diverse, and traditionally underrepresented minorities and women assume more leadership roles, it is simply a matter of time before the makeup of editorial boards, and scientific publishing in general, reflects these changes. However, a growing body of research is beginning to show that time is not enough, and things will stay the same if active action is not taken. In their Case Report, M. Rivera Mindt and co-authors describe the work it took at *The Clinical Neuropsychologist* to develop a strategic plan to increase the diversity and inclusion of its editorial board, ad hoc reviewers, and manuscript submissions, and the progress they have made in a relatively short period by making diversity a priority.

In the November edition of the monthly *Science Editor* Newsletter (which you can subscribe to²), I discuss the

assumption editors have that manuscripts are submitted in good faith, and that the data and images provided for every paper are what the authors say they are. As I wrote, the push for increasing transparency and availability of data is helping to make it easier for editors, reviewers, and readers to trust authors. In the article by Stall and coauthors you'll find a great example of an initiative to create "New Author Guidelines Promoting Open and FAIR Data in the Earth, Space, and Environmental Science."

Also in this issue, Rashid Ansumana and Annette Flanagin provide a summary of the most recent African Journal Partnership Program (AJPP) Annual Review and Planning Meeting and discuss the unique, and not so unique, challenges facing African-based journals. Likewise, Barbara Gastel provides highlights for science editors from a recent science editing workshop and a medical communication conference. Her article also includes a brief overview of the changes to the AMA Manual of Style that were presented in one of the sessions; one change of note, the "death dagger" has met its demise.

As always, I hope readers will find plenty of articles of interest in this issue, including a "disruptive" Gatherings of an Infovore, a "killer" book review, and more.

Finally, as a reminder, we are also always looking for new submissions or article suggestions you may have, along with any illustrations or helpful resources you want to see featured in these pages. For more details, please see our Information for Authors page³ or send an email to scienceeditor@councilscienceeditors.org.

Links

- 1. https://www.publishersweekly.com/pw/print/20180723/77564-whatauthors-and-editors-wish-they-could-say-to-oneanother.html
- https://visitor.r20.constantcontact.com/d.jsp?llr=ejuawadab&p= oi&m=1102755942692&sit=7jt5wereb&f=17dccafc-8c24-4796-b94d-75336138183d
- https://www.csescienceeditor.org/for-authors/information-forauthors/

Summary of the African Journal Partnership Program (AJPP) Annual Review and Planning Meeting, 2018

Rashid Ansumana and Annette Flanagin

The 2018 annual meeting of the African Journal Partnership Program (AJPP) was held in Addis Ababa, Ethiopia, East Africa. The theme of the meeting was Sustainable Publishing: How Journals Are Adapting to the New Publishing Environment. David Ofori-Adjei chaired the meeting and acknowledged the important support of the US National Library of Medicine, Fogarty International Center, the Elsevier Foundation, and the Council of Science Editors. He welcomed The Health Press of Zambia as the newest member of AJPP, which has joined nine other African medical and health journals (African Health Sciences, Annales Africaines de Médecine, Annals of African Surgery, Ethiopian Journal of Health Sciences, Ghana Medical Journal, Malawi Medical Jornal, Mali Medical, Rwanda Journal of Medicine and Health Sciences, and Sierra Leone Journal of Biomedical Research) along with northern partner journals (Annals of Internal Medicine, The BMJ, Environmental Health Perspectives, JAMA, The Lancet, and New England Journal of Medicine). He also thanked African Journals Online (AJOL), Clarivate Analytics, KWF Consulting, and SPi Global Services for their continued support.

Two keynote addresses were given. On day one, the keynote address was delivered by Dr Elizabeth Marincola, Senior Advisor, Communications and Advocacy for the African Academy of Sciences. Dr Marinicola's address, "Advancing Science Communication in Africa," covered the history of scientific publishing and publication models from 1665 to the present day. She gave an overview of problems with traditional science publishing and methods used to advance open publishing. The African Academy of Sciences Open Research platform was presented as one of

RASHID ANSUMANA is Managing Editor, Sierra Leone Journal of Biomedical Research; Dean, School of Community Health Sciences, Njala University, Bo Campus, Sierra Leone. ANNETTE FLANAGIN is Executive Managing Editor, JAMA and the JAMA Network, Vice President, Editorial Operations, JAMA and the JAMA Network.



the advances in open publishing that is nontraditional and still evolving.

The meeting continued with updates from African partner journals and a review of the respective journal webites. The updates indicate that the AJPP has contributed immensely to improving scholarly publishing in Africa. Some of the successes included indexing many of the journals in PubMed, PubMed Central, and AJOL; increased Impact Factors for the *Malawi Medical Journal* and the *African Health Sciences*; increases in manuscript submissions following implementation of ScholarOne Manuscripts; expanding social media presences; increases in article views and downloads and use of analytics; and training of editors, authors, and peer reviewers. The participation of AJPP journals/editors in the International Committee of Medical Journal Editors and the Committee on Publication Ethics (COPE) Council was also acknowledged.

In addition to the several successes highlighted, the African journals also reported grappling with common

problems such as recruiting high-quality manuscripts, late peer reviews, sustainable business models, and replacement of editors in chief and editorial staff. Aiah Gbakima has taken a position with the Sierra Leone Ministry of Health and his position as Editor in Chief of the Sierra Leone Journal of Biomedical Research has been assumed by Osman Sankoh, who also serves as Statistician-General of Statistics for Sierra Leone. The AJPP partners also acknowledged the death of Hassan Saidi, with James Kigera succeeding him as Editor in Chief of Annals of African Surgery. Despite the challenges, the African journal editors were grateful for being part of the partnership, and they all exuded a great amount of sincere gratitude to the Publishers without Borders Program (now Research without Borders), led by Ylann Schemm of the Elsevier Foundation, for sending volunteer editors and publishers to provide training and assist the African partner journals to address some of the problems affecting journal performance.

On day two, the second keynote address, "Working with African Science News Media," was delivered by Mr Ochieng Ogodo, the Sub-Saharan Africa Regional Coordinator of SciDev.Net. Mr Ogodo described Sci.Dev organization and emphasized the role journalists can play in disseminating science, how researchers can benefit from journalists, and how journal editors can communicate research findings published in their journals via news media. He emphasized the value of trained and qualified journalists for interviewing researchers or for working with journal editors to avoid subjective reporting of science.

The keynote was followed by several updates from AJPP stakeholders such as AJOL, SPiGlobal, Research without Borders, Clarivate Analytics, SPi Global Services, PubMed and PubMed Central, the Building Bridges project (which brings together journals, journalists, researchers and policymakers to address important health concerns), and an overview of the African Centre for Disease Control (CDC) by Jay Varma of the Africa CDC.

The 2018 AJPP meeting had five workshops that were tailored to improving journal functionality and performance. An African mentor journal (e.g., Ghana Medical Journal) and mentee journal (e.g., Sierra Leone Journal of Biomedical Research) were paired together to attend each workshop. A ScholarOne Manuscripts workshop was run by Ian Potter of Clarivate Analytics and Steve Morrissey of the New England Journal of Medicine; a workshop on journal business models and plans was led by Elsevier publishers EJ van Lanen and Louise Curtis, and Mike Schramm of NiSC (a South Africabased scholarly publisher); a workshop on online journal performance was run by Michael Berkwits (JAMA Network) and Matt Jozwiak (KWF Consulting); a workshop on improving exposure, discoverability, and dissemination of journal articles was run by Mariannne Guenot (The Lancet), Linda Kupfer (Fogarty International Center), Susan Murray (AJOL), Dan Gerendasy (National Library of Medicine), Ochieng' Ogodo (Sci.Dev), and Ylann Schemm (Elsevier Foundation); and a workshop on best practices in editorial operations was led by Navjoyt Ladher (BMJ) and Annette Flanagin (JAMA Network).

Plans for diversification of AJPP funding and a way forward was deliberated after the workshops. A committee, led by James Tumwine of *African Health Sciences*, will investigate funding sources and develop proposals that can keep AJPP buoyant for the next couple of years.

The meeting ended on a positive note with a poem by James Tumwine, a resolve by journal editors and partners to press for more progress in the coming year, a plan for the next AJPP meeting in May of 2019 just before the annual CSE meeting, and an Ethiopian formal coffee ceremony organized by Abraham Haileamalak and Tekle Ferede of the *Ethiopian Journal of Health Sciences*, who hosted the meeting.

From the Archives

To correspond with this AJPP Meeting Report, from the Science Editor archives is a profile of James Tumwine, editor of the journal African Health Sciences: James Tumwine: The Walking Editor (https://www.csescienceeditor.org/article/other-than-editing-2/)

A Science Editing Workshop and a Medical Communication Conference: Highlights for Science Editors

Barbara Gastel

As 2 P.M. approached, attendees converged on the conference hall. Some pulled rolling suitcases or bore backpacks, and many wore comfortable travel garb. A speaker glanced at her phone to check the current travel time to the airport.

Scanning the room, I recognized a *Science Editor* colleague, some freelance editors, members of editorial offices, and others who had attended editorially oriented sessions at the conference. I saw on my notebook a reminder to leave for my flight by 3:15.

Once the session started, an attendee interrupted to ask, "Can you tell us now when the next edition will be published? I need to leave early to catch a plane."

This concurrent session, titled "What's New in the AMA Manual of Style," took place the final afternoon of the 2018 American Medical Writers Association (AMWA) annual conference, held November 1–3 in Washington, DC. The conference was one of several science communication events I attended during a busy autumn.

This report presents highlights of 2 of these events—a Kavli Workshop on Science Editing and the AMWA annual conference—with emphasis on content likely to interest science editors. In keeping with some learning from the latter event, I have started this report with storytelling rather than my usual to-the-point opening.

Kavli Workshop on Science Editing

Organized by the Knight Science Journalism Program at the Massachusetts Institute of Technology and funded by the Kavli Foundation, the recent Kavli science editing workshop, held in Austin, Texas, on September 11–12, 2018, was intended primarily to improve science coverage in the

BARBARA GASTEL is a professor at Texas A&M University, where she coordinates the science communication graduate program. She edited *Science Editor* from 2000 to 2010, and she remains on the editorial board.



Participants in the Kavli science editing workshop meet in small groups to evaluate published stories. Photo credit: Joshua Hatch.

popular media. Thus, it was geared mainly toward journalists editing science stories for general audiences. Much of the content, however, also can be relevant to science editors working in more scholarly contexts.

Although limited to the 2 dozen applicants chosen, this workshop brought together a diverse group—from the United States and elsewhere; from print, broadcast, and online media; from general outlets and those focusing on science; from local, regional, national, and international venues; and from academia. Among outlets represented were the Associated Press, Chemical & Engineering News, Consumer Reports, High Country News, the Kenya Broadcasting Corporation, Los Intangibles, Maine Public, Mental Floss, the Neue Zürcher Zeitung, the Texas Tribune, and Wired UK.

From the Science Editor of the Washington Post

The first session, presented by Laura Helmuth—health, science, and environment editor at the *Washington Post*—focused on "Finding, Refining, and Elevating Science Stories." Discussing how to decide which items to cover, Helmuth advised attendees to consider those that evoke the

following emotions: indignation, humor, confusion, curiosity, empathy, awe, and "whoa." Then, advising attendees on brainstorming with staff reporters, Helmuth offered pointers that also can help editors lead brainstorming in other settings. Among her advice: Ask questions. Show that you are confused or ignorant—"or fake it" to elicit input. Show enthusiasm. Make clear that brainstorming is "shame-free." In addition, "share your own dumb pun or bad idea," and "respond with your own emotions."

Helmuth listed questions for editors to ask freelancers when deciding whether a proposed story about findings is suitable to assign. Among the questions (which also could aid journal staff in deciding which scientific papers merit news releases) were the following: Does it address a longstanding question? What are the implications? How do the scientists know? Who says it's important, and who disagrees? Is this the right time for the story? Are people likely to misinterpret this—and if so, how do we avoid that? Regarding misinterpretation, Helmuth expressed particular caution about publishing stories that may raise false hopes, for example by publicizing treatments that seem promising in laboratory animals.

Does it address a longstanding question? What are the implications? How do the scientists know? Who says it's important, and who disagrees? Is this the right time for the story? Are people likely to misinterpret this—and if so, how do we avoid that?

In addition, Helmuth discussed working with freelance writers—something also done by some editors at journals, in academia, and elsewhere. Her suggestions included the following: Use conference attendance as a way to help develop a network of freelance writers. Beware of warning signs, such as a writer's being "a jerk on Twitter." Respond effectively to article proposals (known in journalism as "pitches"); for example, where warranted, ask questions that will help freelancers refine their ideas. "Build a relationship through rejections," by providing constructive criticism that may help freelancers to write suitable pitches later. Always submit payment requests promptly.

A recurrent theme of Helmuth's remarks was the interpersonal aspect of being an editor, especially with regard to evoking the best work from staff writers, freelancers, and others such as graphic artists and photographers. One reminder, which Helmuth observed often went unheeded, was simply to thank people for their work.

From a Founder of Retraction Watch

The next main presentation featured Ivan Oransky, a founder of the blog *Retraction Watch* and distinguished

writer in residence at New York University. Titled "Psst: That Study Is Probably Wrong," it touched on problems arising in scientific publication and offered advice on reporting savvily on science. Among problems discussed were limited replicability of published research, predatory or otherwise invalid journals, and excessive manipulation of data in search of a statistically significant result ("torturing the data until it confesses").

Oransky also discussed retraction of scientific papers, noting that although such retractions were becoming more common, they remain relatively rare. He mentioned the Retraction Watch Database of retractions (http:// retractiondatabase.org), which has since been officially launched. (For those interested: The October 26, 2018, issue of *Science* magazine, which appeared on about the date of the launch, contains several feature articles, including one by Oransky, about retractions.)

In addition, Oransky provided advice that editors could give reporters covering research. Among his points: Realize that preprints have not been peer reviewed. Do not rely on only a news release about a journal article; read the entire article. Look for the limitations the journal article notes. Read editorials accompanying journal articles. Talk with outside sources in addition to article authors. Beware of using anecdotes that might be misleading; a person who benefited from a treatment may be available to interview, but it is "hard to interview people in cemeteries." Be cautious about attributing causality. Check with biostatisticians. Ask smart questions, such as whether a report was peer reviewed and published, whether the research was in humans, whether a power calculation was done, whether the study was well designed, whether the reported endpoints were the primary ones, and who could benefit from the finding.

Helmuth and Oransky expressed different views about the embargo system (in which some journals give reporters articles in advance, to provide more time to prepare stories about them, on the condition that the stories not be released before the journal's publication time). In her presentation, Helmuth stated that "embargoed stories are a gift." Oransky built on this metaphor in his presentation, terming embargoed stories "a Trojan horse." He said they "turn us all into doing hack journalism" and stated that the harms outweigh the benefits of having extra time.

From Two Experts on Fact-Checking

The third, and final, main segment focused on fact-checking of science articles. It featured Brooke Borel (contributing editor at *Popular Science* and author of *The Chicago Guide to Fact-Checking*, published by the University of Chicago Press) and Jane Roberts (deputy editor of the online magazine *Undark*). The workshop coincided with release of the report "The State of Fact-Checking in Science

FEATURE

CONTINUED



A plenary session at the 2018 AMWA annual conference. Photo credit: AMWA and EPNAC.com.

Journalism,"¹ for which Borel was project coordinator and author.

The speakers characterized fact-checking as quality control before publication. They noted that it included ensuring that individual facts such as names and statistics were accurate, determining whether the overall picture conveyed was true, and checking for completeness. They observed that two dominant models of fact-checking existed: one used largely by newspapers, and one tending to be used by magazines.

In the *newspaper model*, the speakers stated, the checking is mainly by the reporter. In addition, the editor flags possible errors, based on experience and intuition, and the copy editor may do some checking. The speakers characterized this model as being suitable for time-sensitive stories (such as those with breaking news) and short, simple stories in newspapers, blogs, and other venues.

In the *magazine model* as described by the speakers, the writer provides the source materials used and a copy of the story annotated to indicate sources of content. Someone other than the writer or editor then checks every fact. For verification, the fact-checker may even re-interview people or obtain facts from new sources. The speakers noted that this model can serve well for long-form stories and for legally or otherwise sensitive content. Settings that they identified for such checking include some print magazines, online long-form work, and narrative podcasts.

The speakers also provided guidance for fact-checking using the magazine model. Their advice included the following: Before checking individual facts, read the story as a whole. If feasible, read relevant stories from other publications for context. Then go through the story, marking each fact; on hard copy, one can use highlighters or colored pens to show that material has been checked, and on electronic copy, one can use boldface or highlighting to do so.

Before checking individual facts, read the story as a whole.

Among other points that the speakers or attendees made at the session: Inform authors at the outset that their work will be fact-checked. Likewise, advise authors to tell sources that they may hear from fact-checkers. Set priorities for what to focus on most in fact-checking. Likewise, consider the quality of information sources against which to check. Of course, keep careful records.

And More

The workshop also included a segment in which small groups of attendees critiqued science stories distributed before the workshop. At this session and others—and during the receptions, meals, and breaks—attendees augmented the formal content by sharing experiences. I made mental note of participants who might serve well as guest speakers or internship hosts—or who might be potential authors for *Science Editor.*

Between the last session and the closing dinner, I took a long walk to stretch my muscles and clear my head. A bright rainbow appeared in the distance. A fitting close to a fine workshop.

AMWA Medical Writing & Communication Conference

Known in recent years as the AMWA Medical Writing & Communication Conference (apparently for reasons other than redundant wording), the annual conference of the American Medical Writers Association serves various constituencies involved in professional communication about medicine and related realms. Among these constituencies are regulatory writers and editors at pharmaceutical and biotechnology companies, medical writers and editors at publications and institutions, and freelance medical writers and editors. To serve varied professional interests, the conference includes an array of plenary and concurrent sessions, workshops, and mealtime roundtables. The following are some highlights of sessions with editorial emphasis.

From History, to Grants, to Stories

Plenary sessions of editorial interest included the Swanberg Award Address, by award recipient Bart Harvey, of the University of Toronto public health faculty. The award recognizes an AMWA member for "distinguished contributions to medical communication or . . . unusual and distinguished services to the medical profession"; among other contributions, Harvey has developed and repeatedly led AMWA workshops on biostatistics and epidemiology. Harvey's address-titled "Harold Swanberg: How I Wish I Knew You!"-recounted the career of Swanberg, a highly active physician, writer, and journal editor who co-founded AMWA. Among items of editorial interest: In 1952, Swanberg spearheaded AMWA's establishment of a manuscript editing service, mainly for AMWA members (charge: \$4.00 for 1000 words or less, plus \$3.00 for each additional 1000 words or fraction thereof). Harvey quoted an announcement saying that the service aimed to "help authors say what they want to say in their own styles, yet with precision, economy, and felicity." Still an apt characterization of good manuscript editing!

The concurrent session "Grant Editing Basics: Appealing to Reviewers" also attracted many attendees with editorial interests. The speaker, Meagan Ramsey of the University of Michigan, focused mainly on editing applications for grants from the US National Institutes of Health (NIH). Noting editorial implications along the way, Ramsey summarized the NIH grant review process, described the sections of NIH grant applications, and identified problems commonly occurring in these sections. Among the ideas that Ramsey presented: including in the research strategy section a "team overview" specifying what each research-team member will contribute (rather than relying on peer reviewers to piece together this information from the biosketches provided). Because of much unexpected discussion from the audience, Ramsey found herself short on time for her final topic, the mechanics of editing grant proposals. However, the slides from her entire talk can be accessed online.²

Other sessions of editorial interest included "The Power of Story in Science Communications," presented by Cynthia Lollar and James Mathews. Among points from the speakers, who work in the National Cancer Institute communications office but also have backgrounds in fiction writing: Humans are primarily feeling rather than thinking beings, and stories provide emotion that helps anchor information; a story should have a compelling character, a conflict or complication, and resolution; and the character should want something intensely and should change over time. The speakers illustrated their points with examples, including content from Siddhartha Mukherjee's Pulitzer Prize-winning The Emperor of All Maladies: A Biography of Cancer and versions of a single story presented as a blog post, a Facebook post, tweets, and a video. A resource list distributed at this session can be accessed online, where slides or handouts that presenters at this conference have shared have been posted.³

"What's New in the AMA Manual of Style"

To encourage attendees to stay until the end, conference planners often save some sessions on especially popular topics for last. Hence, perhaps, the placement of the update on the AMA Manual of Style. This session featured 3 members of the committee preparing this manual: Stacy Christiansen, Annette Flanagin, and Cheryl Iverson. Some changes in AMA style that they mentioned have already been implemented, and others, requiring adjustments in technology, are still in process.

Some style changes mentioned at the session reflect contemporary trends. For example, it is now AMA style to write *email* (without a hyphen), *internet* (lowercase), and *website* (lowercase). Use of *they* as a singular is now permitted, although alternatives should be used when feasible; a valid use, it was noted, is to prevent identifiability when a patient being discussed is the sole member of a given gender in an identified group. The manual also has updates regarding nomenclature in genetics.

Other changes in AMA style reflect evolution of technology. For example, drug manufacturers' locations no longer are stated in methods sections, and book publishers' locations no longer will be required in reference lists; if

relevant, readers can learn locations online. Other changes in reference format include making the URL the last item in a reference, without a period after it, and no longer placing a period after a digital object identifier (DOI) at the end of a reference; these changes, it was observed, can facilitate linking and cutting-and-pasting. In addition, examples were provided of how to cite Facebook posts, Twitter tweets, and blog posts. Style for social media posts also was discussed; contractions are acceptable, but texting jargon (such as *L8* for *late*) should be avoided, and proper capitalization should be used. It was noted that the new edition of the manual will include material on electronic workflow.

"Our statistics chapter had a massive overhaul," the speakers noted. They mentioned a distinction now made: Rather than being synonyms, *multivariable* refers to having multiple independent variables and a single outcome, whereas *multivariate* indicates having one or more independent variables and multiple outcomes.

The session also addressed editorial-policy changes being reflected in the manual. Of note, the option "retraction and replacement" now exists, to be used when a "pervasive error" (such as an inadvertent error in coding) is found to have affected the direction of results in a published article.

Of note, the option "retraction and replacement" now exists, to be used when a "pervasive error" (such as an inadvertent error in coding) is found to have affected the direction of results in a published article.

Updates regarding authorship were summarized; it was noted that requests to have 2 corresponding authors would now be considered. Other changes in the manual include updates about data sharing, addition of content distinguishing public access from open access, and inclusion of a section on predatory journals.

Among other items noted:

- The "death dagger" (†) is no longer used to indicate that an author is deceased. Instead, the information can be included in the acknowledgment section.
- Sentence-style capitalization will now be used in all column headings in tables and all axis labels in figures.

- In keeping with SI convention, spacing in temperatures will now be as in the following example: 37.5 °C (rather than 37.5° C or 37.5°C).
- The term *Cl*, for *confidence interval*, can now be used without expansion on first use, as readers of a medical journal can be expected to know its meaning.
- In mathematical composition, thin spaces will now be used before and after symbols used as verbs.
- The new edition will include an updated publishing glossary. Terms such as *CD-ROM*, *elite type*, *internet*, and *keyboard* have been removed, and terms such as *cloud*, *STEM*, and *stylesheet* have been added.
- Additional abbreviations are being listed. However, the manual will no longer list abbreviations for fellowship designations, as bylines normally do not include such designations and the weight of a given such designation can be difficult to determine.

It was quipped that no changes were made in the list of proofreading symbols.

Characterizing the manual as a living document, the presenters noted that updates are continually being posted online.⁴ They also mentioned that the slides from the current presentation would be available.⁵

As the presenters reached their final slide—which said the 11th edition of the AMA Manual of Style would appear, both in print and online, in 2019—my watch showed 3:15 p.m. approaching. Listening to the first questions in the discussion period, which was scheduled to run to 3:30, I edged to the door. Then I scrambled to catch a taxi.

Despite a brief slowdown, which the driver ascribed to a hockey game in town, I reached the airline departure gate at the designated boarding time. The aircraft, though, had not yet arrived. During the resultant wait, I reflected on the conference. And I decided that in writing it up, I would give storytelling a try.

Links

- https://www.moore.org/docs/defaultsource/default-document-library/ fact-checking-in-sciencejournalism_mit-ksj.pdf?sfvrsn=a6346e0c_2
- https://cdn.ymaws.com/www.amwa.org/resource/resmgr/ conference/ 2018/handouts/GrantEditingBasics_Ramsey.pdf
 https://www.amwa.org/page/2018sessions
- 3. https://www.amwa.org/page/2018sessions
- 4. http://www.amamanualofstyle.com/page/updates
- 5. https://cdn.ymaws.com/www.amwa.org/resource/resmgr/ conference/2018/handouts/NewAMAStyle_Session.pdf

Data Sharing and Citations: New Author Guidelines Promoting Open and FAIR Data in the Earth, Space, and Environmental Sciences

Shelley Stall, Patricia Cruse, Helena Cousijn, Joel Cutcher-Gershenfeld, Anita de Waard, Brooks Hanson, Joerg Heber, Kerstin Lehnert, Mark Parsons, Erin Robinson, Michael Witt, Lesley Wyborn, and Lynn Yarmey

New author guidelines supporting open and FAIR data in scholarly publishing are being adopted throughout the Earth, space, and environmental sciences community. With the new guidelines, supporting resources are provided. These include a new tool for finding the right repository and answers to frequently asked questions. Adoption of these new guidelines requires a shift in the scientific culture around data sharing. Support for this change is needed by researchers, institutions, funders, journals, repositories, and connecting infrastructure—which will advance research across the geosciences.

Scholarly publishing today is, in many ways, all about the data. Publications increasingly describe large, complex, and diverse data sets. Preserving, making available, and ensuring the integrity of the underlying data are as important as

SHELLEY STALL and BROOKS HANSON are with the American Geophysical Union; PATRICIA CRUSE and HELENA COUSIJN are with DataCite; JOEL CUTCHER-GERSHENFELD is with the Heller School for Social Policy and Management, Brandeis University; ANITA DE WAARD is with Elsevier; JOERG HEBER is with the Public Library of Science; KERSTIN LEHNERT is with the Lamont-Doherty Earth Observatory of Columbia University; MARK PARSONS is with Tetherless World Constellation, Rensselaer Polytechnic Institute, ERIN ROBINSON is with Earth Science Information Partners; MICHAEL WITT is with Purdue University; LESLEY WYBORN is with the Australian National University; and LYNN YARMEY is with the Research Data Alliance, Rensselaer Polytechnic Institute.



Michael Witt (Purdue University) demonstrating the new Repository Finder tool developed by DataCite for the project.

developing the primary publication. This is particularly the case in the Earth, space, and environmental sciences where diverse data are critical for understanding the dynamics of our planet and solar system.

Recognizing the key value of curated, well-described data, The American Geophysical Union (AGU) first adopted a position statement¹ on the importance of Earth, space, and environmental science data in 1997. This was amended in 2015 and states:

"Earth and space sciences data are a world heritage. Properly documented, credited, and preserved, they will help future scientists understand the Earth, planetary, and heliophysics systems. They should be preserved longterm for future use. They should be made openly available to the scientific community and the public as soon as possible. They should be accessible in usable formats with sufficient machinereadable documentation to allow informed reuse. These responsibilities are an integral part of scientific



Erik Schultes, (GO FAIR International Support and Coordination Office), Natasha Simons (Australian Research Data Commons), and Jens Klump (CSIRO Mineral Resources) are participating in an assumptions wrangling exercise with Leslie Hsu (back turned, U.S. Geological Survey).

research shared by individual scientists, data stewards, research institutions, and funding organizations."

Many other organizations have also recognized the need for well-curated data. For example, there are, at time of writing, 119 organizational endorsements² of the Joint Declaration of Data Citation Principles adopted by FORCE11.³ In the Earth, space, and environmental sciences, the Coalition for Publishing Data in the Earth and Space Sciences (COPDESS)⁴ and the major journal publishers in these domains were signatories of a statement of commitment regarding data in an effort brought together in 2014. COPDESS galvanized a community of publishers, repositories, and infrastructure "to help translate the aspirations of open, available, and useful data from policy into practice" as stated on their website. This effort established a dialog between publishers and repositories with common goals and collaborative objectives in a way that rarely occurs.

In 2016, the FAIR Data Principles,⁵ were published as a compilation of principles arranged around into four themes specific to better stewardship for scientific data: making that data Findable, Accessible, Interoperable, and Reusable (FAIR). COPDESS embraced the FAIR principles as an opportunity to move from aspiration and agreement to actual implementation of open and FAIR data by targeting the roles of the scholarly publisher, the scientific repository, and the connecting infrastructure.

The Enabling FAIR Data Project⁶ in the Earth, space, and environmental sciences, funded by the Laura and John Arnold Foundation to the AGU, invited the participants of the COPDESS effort along with other key stakeholders to form a new coalition to establish common policies across all publishers that require data be as open as possible and preserved in a repository that follows the FAIR data guidelines. The project objectives for the two primary stakeholder groups include:

- Scholarly publishers: to adopt common policy that data are no longer archived in the supplementary information of a manuscript, that all data are to be deposited, documented, and preserved in a FAIRaligned repository,⁷ and cited in the manuscript with an appropriate data availability statement.
- Scientific repositories: to support authors and researchers by providing services to ensure data and software that support published research are well documented, identified with global persistent identifiers (PIDs), and have landing pages that support both machine and human readable data citation information.

Journal editors and reviewers have a pivotal role in implementing any new publisher commitments by guiding authors through the new expectations of citing data and software in their manuscript. Understanding that editors and reviewers need resources to consistently guide authors and reviewers, we have prepared the information and guidelines below.

The Enabling FAIR Data coalition has recently completed the development of a set of common data authoring polices, author guidelines,⁸ and defined expectations of each stakeholder community in a commitment statement encouraging project participants and members of these communities to become signatories and put into place the policy and practice needed to meet the criteria in the next year.

Currently, there are over 90 organization and individual signatories⁹ for the commitment statement working to meet the criteria in the next year. We invite you and your communities to also become signatories.

Journal editors and reviewers have a pivotal role in implementing any new publisher commitments by guiding authors through the new expectations of citing data and software in their manuscript. Understanding that editors and reviewers need resources to consistently guide authors and reviewers, we have prepared the information and guidelines below.

Enabling FAIR Data Author Guidelines⁸

Each publisher who has signed the Commitment Statement¹⁰ will ensure that their author guidelines include the text developed by the Enabling FAIR Data project. We

are expecting the text to be incorporated into existing online content, and not necessarily copied in verbatim, understanding that each publisher has its own approach to guidance.

The guidelines include the common practices expected by authors across all the Earth, space, and environmental science journals. A paraphrased excerpt of the guidelines publishers require of authors is below with the full text available online.¹¹

- Deposit research data in a FAIR-aligned repository,¹² with a preference for those that explicitly follow the FAIR Data Principles and demonstrate compliance with international standards for data repositories (e.g., CoreTrustSeal¹³). Supplements to articles must not be used as an archive for data.
- 2. Cite and link to the data in the article, following the Joint Declaration of Data Citation Principles¹⁴ and ESIP Guidelines,¹⁵ using the unique, resolvable, and persistent identifiers provided by the repository in which the data are archived.
- 3. Include a Data Availability Statement describing how the data underlying the findings of their article can be accessed and reused.
- 4. Provide unrestricted access to all data and materials underlying reported findings for which ethical or legal constraints do not apply.¹⁶

Frequently Asked Questions

To support editors and reviewers in the implementation process of the new author guidelines and Enabling FAIR Data policies, we worked with the project stakeholders to develop a list of Frequently Asked Questions¹⁷ and answers that will be kept updated.

Repository Finder Tool

An important new tool available to researchers is Repository Finder.^b Many researchers do not yet have a relationship with a repository that can provide support services. There are over 2000 repositories internationally cataloged in re3data.org¹⁸ with different criteria for the types of data they accept, and which researchers are eligible to deposit. Repositories that provide support to researchers helping them to document their data to make it more understandable by others are preferred along with those meeting the criteria defined in the Commitment Statement.¹⁹ DataCite²⁰ developed this tool on top of re3data.org, a registry of data repositories, and recently published a blog²¹ where you can learn more. It lists repositories that are open to researchers and support globally registered persistent identifiers. Additionally, a seal logo indicates a third-party certification of capabilities. CoreTrustSeal is one of these certifications and is expected to be increasingly adopted within the Earth, space, and environmental science repository community over the next few years. Having a CoreTrustSeal certification is not required to be FAIR-aligned but does indicate that the repository meets the majority of the Enabling Fair Data project repository criteria and more.

Adoption of Open and FAIR Data Principles in other Scientific Domains

Good work is being done in domains such as chemistry with new efforts by the International Union of Pure and Applied Chemistry (IUPAC)²² to become a GO FAIR²³ Implementation Network, and the health domain with FAIR standards as part of the criteria for the new National Institute of Health Data Commons,²⁴ encouraging sharing of research data. It is difficult to get significant change to occur within and across domains unless many of the stakeholders adopt similar policies and practices in a coordinated way. Societies and communities can be a strong influence helping to bring together the wider stakeholder communities including journals, repositories, institutions, and funders for common goals. The method used by the Enabling FAIR Data project can readily be adapted to any domain. The author guidelines can be directly incorporated into the guidance provided by any scientific journal to their authors. Communities that are platforms for working groups like Earth Science Information Partners (ESIP),²⁵ through their Data Stewardship Committee,²⁶ can help create examples of data and software citations that are domain specific, building on the work by FORCE11. By having common policies, guidelines, common answers to frequent guestions, and domain-specific examples the beginning of the journey to become open and FAIR is a good start. The work ahead to sustain the new author guidelines supporting open and FAIR principles is with our current culture and identifying the barriers that remain for data sharing, attribution, and credit in order to be fully integrated in the research process and valued by our institutions and funders.

Culture Change for Sharing Data through Assumptions Wrangling

The Earth, space, and environmental sciences depend, in part, on increased collaboration and sharing of data. However, such sharing runs counter to long-standing assumptions that are deeply embedded in the culture of science; assumptions that position science as a competitive enterprise centered on advancing the narrow self-interests of key stakeholders.

During the most recent multi-stakeholder workshop for the Enabling FAIR Data project in September 2018, participants used an experimental process, "assumptions

wrangling," to work towards defining concrete actions to reduce barriers to the culture change needed for embracing open and FAIR data. The process was developed by the facilitator, Joel Cutcher-Gershenfeld, and designed to guide engagement with deeply embedded cultural assumptions using a method that is also applicable in other contexts.

The workshop included an international assembly of scholarly publishers, research data facilities, public and private funders, professional societies, and nongovernmental organizations engaged in this process of assumptions wrangling, borrowing terminology from what is called "data wrangling" in science. The exercise was motivated by observing that "everyone complains about culture, here is a way to do something about it."

The assumptions wrangling process builds on the work by Douglas McGregor, and advanced by Ed Schein, and involves four steps:

Step 1: From/To Assumptions Step 2: Driving/Restraining Forces Step 3: Indicators Step 4: Personal and Ecosystem Implications

The process begins with identifying current, partly problematic embedded assumptions and alternative aspirational assumptions: What we termed the "From/To" stage. We call these "operating assumptions" since they are deeply embedded in the operating practices of the science enterprise. Table 1 contains a few edited examples from the dozens of From/To pairs that were identified by the workshop participants.

Note that these examples were also presented in a report on the assumptions wrangling process for the Winter 2019 issue of *Heller Magazine*, published by the Heller School for Social Policy and Management at Brandeis University.

Note that the "partly problematic" assumptions are also partly functional. They have various logics supporting them-shifting these assumptions is not just a matter of calling them out. In this workshop, small groups brainstormed lists of driving and restraining forces associated with selected From/To pairs, recognizing that there are restraining forces that serve the interests of some or all stakeholders. In this case, restraining forces include incentives and rewards associated with career advancement (emphasizing individual rather than collective efforts), lack of knowledge and skill in the associated data work, and funding models that do not anticipate long-term storage and reuse of data, among many other factors. Driving forces include the coordinated efforts of the key stakeholders (such as the commitment statement), changes in incentives (data sharing will be part of the selection criteria for fellows in the AGU), changes in policies (funding agencies enforcing required data management plans in proposals), and other developments.

The third step in assumptions wrangling involves identifying specific indicators that would represent evidence of change in the underlying assumptions. There are many in the geosciences, including demonstrated compliance with data management plans listed in research proposals, increased ingest of data and other research objects in data facilities, documented reuse of data from data facilities, inclusion of evidence of data reuse in tenure and promotion cases, and other behavioral indicators. However, the most important indicators are advances in the Earth, space, and environmental sciences that would not have been possible without the sharing and reuse of data. Tracking these impacts are what will be most important in a long-term shift in the underlying assumptions.

Table 1. Selected	examples of	"From"	and "To"	operating	assumptions
	· · · · · · ·				· · · · · · · · · · · · · · · · · · ·

"From" Partly Problematic Assumptions	"To" Aspirational Assumptions		
As a researcher, I am in competition with my colleagues.	As a researcher, I am part of a greater community that is both coop- erative and competitive. In this context, I am responsible for sharing output (data, samples, software tools, and models), with appropriate embargo periods, so as to ensure reproducibility and enable reuse.		
Posting data on a website or in an attached document with an article is sufficient for reproducibility and progress in science.	Researchers submit data to appropriate repositories in formats and file types that are immediately (or easily) ingestible and interoperable. Associated metadata is complete and able to be transformed into multiple formats.		
Scientific funding and other resources should follow people and organizations, not data.	Data, physical samples, and software tools and models are first-class scientific objects worthy of direct investment.		
Data should only be attached to scientific articles.	Data can have unique identifiers and sometimes it is the articles that should be attached to the data.		

Completing the workshop process involved asking over 60 institutional leaders to indicate specific behavioral changes they would advance in their work over the next 18 months that are reflective of the "To" assumptions, as well as larger changes in the ecosystem that they see as essential. In this case, the commitments will be evident in editorials in leading scientific journals; workshops at professional meetings; new prizes and honors lifting up data sharing; collected success stories; policy changes to require data submissions with articles; tools to help researchers find relevant repositories; methods to attach unique digital identifiers to data, samples, and software; and other developments. We developed the assumptions wrangling approach with the expectation that these action commitments would be further reaching than if we just asked people to identify next steps without taking a deep dive on assumptions, and this was indeed the case.

Ultimately, the process of shifting deeply embedded operating assumptions will be an iterative one, rather than a one-time event. In this case, there are concrete plans to track the various indicators identified as a "check and adjust" on the action commitments. Progress in the case of the geosciences is important to us all, in that it is the planet Earth that is at stake and advances in the Earth, space, and ecological sciences depend on culture changes that foster increased cooperation and data sharing. Adaptation to other settings is also important since there are so many social impact domains relevant to the Heller community where culture change is needed.

Summary

As stated in the AGU's Data Position Statement, "Earth and space sciences data are a world heritage." Discoveries made in the near and distant future will benefit from our stewardship of data collected today. Moving our community towards better understanding of this investment in our data is critical and pivotal to future science. Datasets we create as part of our research must stand on their own for possible use and reuse by others in our own domains or possible a completely different domain. As data are easier to find and understand as a result of these policy changes and work by others, our community has an opportunity to conduct new and exciting research with higher levels of trust in good data stewardship.

References, Notes, and Links

- 1. http://bit.ly/AGUDataPosition
- 2. https://www.force11.org/datacitation/endorsements
- Data Citation Synthesis Group. Joint declaration of data citation principles. Martone M, editor. San Diego (CA): FORCE11; 2014. https://doi.org/10.25490/a97f-egyk
- 4. http://www.copdess.org/
- Wilkinson MD, Dumontier M, Aalsbersberg IJ, Appleton G, Axton M, Baak A, Blomberg N, Woiten, J-W, da Silva Santos LB, Bourne PE et al. The FAIR guiding principles for scientific data management and stewardship. Sci Data 2016;3:160018. https://doi. org/10.1038/sdata.2016.18
- 6. http://www.copdess.org/enabling-fair-data-project/
- 7. A FAIR-aligned repository complies with the tenets in the Enabling FAIR Data Commitment Statement (http://www.copdess.org/enablingfair-data-project/commitment-to-enabling-fair-datain-the-earth-spaceand-environmental-sciences/) specific to scientific repositories.
- Enabling FAIR Data Community, de Waard A, Cousijn H, Heber J, Hanson B, Bradford M, Friedman M, Hou S, Jones P, Kavanagh E, et al. Author guidelines for enabling FAIR data in the earth, space, and environmental science. Zenodo 5 October 2018. http://doi. org/10.5281/zenodo.1447108
- http://www.copdess.org/enabling-fair-data-project/commitmentto-enabling-fair-data-in-the-earth-space-and-environmentalsciences/signatories/
- 10. Enabling FAIR Data Community. Commitment statement to enabling FAIR data in the earth, space, and environmental sciences. Zenodo 8 October 2018. https://doi.org/10.5281/zenodo.1451971
- 11. http://www.copdess.org/enabling-fair-data-project/author-guidelines/
- A tool to assist in identifying FAIR-aligned repositories is available from DataCite and can be found at https://repositoryfinder. datacite.org.
- 13. https://www.coretrustseal.org/
- 14. https://www.force11.org/datacitationprinciples
- 15. http://commons.esipfed.org/node/308
- 16. There may be a need to restrict some access to data because of fragile environments, endangered species, geopolitical tensions, or cultural sensitivities (e.g., indigenous land rights).
- 17. http://www.copdess.org/enabling-fair-data-project/enabling-fairdata-faqs/
- 18. https://www.re3data.org/
- http://www.copdess.org/enabling-fair-data-project/commitmentto-enabling-fair-data-in-the-earth-space-and-environmentalsciences/
- 20. https://www.datacite.org/
- 21. https://doi.org/10.5438/wday-8958
- 22. https://iupac.org/event/supporting-fair-exchange-chemical-datastandards-development/
- 23. http://www.go-fair.org/
- 24. https://commonfund.nih.gov/commons
- 25. https://www.esipfed.org/
- 26. http://wiki.esipfed.org/index.php/Preservation_and_Stewardship

My Words or Your Words? Detecting and Investigating Plagiarism

Nancy R. Gough

When I started my editorial career as an associate editor for the online-only journal *Science's STKE* in 2000, it was difficult to detect plagiarism. The current online plagiarismdetection tools that are widely available and used by an increasing number of publishers did not exist. Or, if they did exist, I did not have access to them, and the journal did not use them. Even with such tools, editors need to be able to properly investigate and identify cases of suspected plagiarism or self-plagiarism (also known as self-similarity). Here, I describe experiences I had and provide suggestions for how to detect and confirm cases of plagiarism of text.

Even without such tools, I identified a clear-cut case of self-plagiarism early in my career as an editor. The article in question was an invited review article. What alerted me was the quality and style of the writing from a nonnative–English speaker with whom I had been corresponding: The writing did not match the writing in the correspondence we had exchanged regarding contributing the review article.

To determine if the contributed manuscript was similar to another published article, I started searching for reviews on the same topic. It never occurred to me the plagiarized review I would eventually find might be by the same author. I had never considered self-plagiarism as a possibility. Before I could be sure the published article and the submitted manuscript matched, which from the abstracts of each seemed likely, I had to obtain a copy of the full text of the published article. Then I compared several aspects of the two documents: (i) the overall organization in terms of the sections; (ii) the beginnings and endings of the paragraphs; and (iii) the complete text of one entire section, including the references cited in that section. I expected the references to overlap in any review article published within a close time frame (approximately 6 months) on this topic. However, I found that not only was the text nearly identical with only trivial changes, but the references were almost identical, with only a few additions in the submitted manuscript (less than 10% of the total references were different), and the



order of the cited references in the two files was exactly the same. At this point, it became clear to me that I could not proceed with the submitted article, and I contacted the author.

I was quite surprised at the response I received: The author did not realize republishing a nearly identical review with a small number of new references was not allowed.

I informed the author by email that I had determined the submitted manuscript was nearly identical to the previously published article in another journal, and I provided the exact details of the other article. I explained this is not permitted, and we were rejecting the submitted manuscript. I told the author a submission of a new manuscript that was substantially different from others they had authored would be considered if they wished to submit a new review for consideration. I was quite surprised at the response I received: The author did not realize republishing a nearly identical review with a small number of new references was

NANCY R. GOUGH is with BioSerendipity, LLC.



allowed. They thought that because it was their own work it could be submitted and published in multiple journals.

This case occurred in the early days of online-only journals, which may have contributed to the confusion about this being a case of illegal self-plagiarism. The journal where I worked was online only, without any print component; the journal also had an unconventional title (including the phrase "knowledge environment") that represented the entire online site. Science's STKE was the abbreviation for Science's Signal Transduction Knowledge Environment, which was published under that title from 1999 to 2007. It is possible the author thought the online-only format did not truly represent republication. I would hope this potential source of confusion is no longer an issue. However, I think many authors reuse their own text in various ways-this is not always inappropriate. The context and the extent and type of the self-plagiarized material are all factors that must be considered. Some text in grants may be used repeatedly. Descriptions of procedures are often very similar in many instances from grants and lab protocols available online to materials and methods sections of primary research articles. Authors may have a very similar or even identical way of describing their research in a biosketch or on their lab or departmental websites. A good rule of thumb is that, if the author signs a license to publish that has an exclusive publication clause, publishes under a Creative Commons license, or signs a copyright transfer agreement, then the text is not directly reusable without quoting or citing the original publication, or both. Grants are not subject to this kind of legal limitation and, generally speaking, neither are research descriptions used online for websites or inclusion in meeting programs.

In 2008, the title of Science's STKE changed to Science Signaling, and the journal began to publish primary research. By this time, many journals were online with some moving to having online-only options for access. I was serving as Editor of the journal and handling my own assigned manuscripts as well as all ethical issues. The other form of plagiarism I encountered much more frequently than self-plagiarism was text copied directly from abstracts of cited literature. This was not typically self-plagiarism and was especially common in, but not limited to, review submissions. In this case, I had to use a different method to detect the plagiarism. Again, I did not use plagiarism-detection programs. I am not sure such programs would find these examples or, if they did, the amount of text involved would be sufficiently large to raise a red flag for the editor. Instead, the clues that plagiarism had occurred came from the writing itself.

I would notice a few sentences written in an unusual style compared with the rest of the manuscript. Even more revealing was the introduction of a new name for a molecule (protein, gene, or RNA), when in other parts of the manuscript the molecule was consistently written with a single name. This was a major red flag and was easy to investigate because the sentence or section included one or more references. I would find the references in a database, such as PubMed, and discover the sentence that triggered the warning in one of the abstracts. I also detected plagiarism of abstracts when I was trying to help authors be more precise in their presentation: I determined the authors had taken complete sentences directly from an abstract of one of the cited articles using the same process (finding the abstracts of the cited articles for the section that lacked

sufficient detail). This was quite worrisome, because finding such plagiarized content suggested the authors had not actually read the articles they had cited. So, not only did the submitted manuscript have the problem of plagiarism, but it seemed to lack scholarly integrity: the authors had not read the cited articles in sufficient depth to be able to rephrase the findings in their own words or to realize the article was not actually making or supporting their claims.

In addition to detecting plagiarism, a new challenge now exists for editors—using plagiarism-detection software appropriately. Online tools are now widely available and used by many publishers to detect plagiarism. Properly using the output from such tools is a new challenge editors face. Relying solely on a simple score of similarity or identity is insufficient to gauge plagiarism in most cases. Editors also need to consider the context to decide if plagiarism of any kind has occurred. Lifting entire sentences or long scientific phrases from abstracts of the cited literature is inappropriate in a review article, especially when this is done without quotation marks or a citation to clearly indicate the text was taken from the cited article.

In a research article, the authors may have sections that are similar among their published papers. These may be close enough to trigger plagiarism flags in automated detectors. The flag may detect self-plagiarism or similarities with other authors' published work. For example, defining a protein or gene or describing the symptoms of a disease or condition is often presented similarly across publications. Papers describing case studies or clinical trials may have similar formats with consistent language—this is desirable and should not be considered plagiarism. Indeed, some journals have highly structured, almost formulaic abstracts that could trigger a high similarity score in a plagiarism-detection process.

Materials and methods sections are often similar. Although some journals prefer to have the authors use the language "performed as previously described" with a citation to a previous article, other journals are moving toward increasingly detailed materials and methods sections so the reader does not have chase down a copy of the article containing the methods used in the paper. Industry-standard procedures or methods that exactly follow the manufacturer's protocols or instructions need not be reproduced. Conciseness is a virtue, but not at the expense of making the reader hunt for information necessary to reproduce or extend the findings of the study.

A clue that materials and methods may have been reproduced from another publication is the inclusion of sections that do not correspond to any data shown in the submitted manuscript. However, this also occurs as manuscripts are revised and reorganized after rejection or review and resubmitted for consideration. Methods that are completely identical to previous publications can also be an indication the authors have not adequately detailed any changes from previously presented methods or procedures or may be a tip the methods are incomplete. Although missing methods have nothing to do with plagiarism, sometimes they can be discovered when plagiarism of the materials and methods is detected. Authors who copy materials and methods from another publication (their own or someone else's) may fail to include descriptions of materials and methods specific to experiments performed in the current manuscript that were not part of the other publication. An inability to provide sufficiently detailed methods, relying instead on "as previously described" for most or all of the materials and methods, can be an indication the authors lack detailed information about how the experiments were conducted. Querying the authors about methods that are identical or highly similar to those that have been previously published, methods that lack any description, or missing methods for data presented is key to ensuring any specific modifications, reagents, or conditions used in the described research are presented for the reader.

As with most aspects of an editor's job, detecting and investigating plagiarism is a complex task. There are no absolute rules or a similarity threshold that will allow this process to be completely automated. Although technology makes detection easier in some cases, my 17 years of experience suggests paying close attention to the writing is critically important to properly identifying plagiarism and self-plagiarism. Furthermore, an editor needs to decide an appropriate course of action-requesting revisions by the authors, rejecting the manuscript, or reporting unethical behavior. Thus, discovering and handling cases of plagiarism will continue to require editors to read submissions carefully, have the skills necessary to investigate, and be able to exercise judgment. Ensuring the scientific literature conforms to the standards for scientific discourse, including knowing when a situation represents plagiarism, is just one of the many ways editors add value to the scientific enterprise.

Resource Nook

The **Conscious Style Guide** (https://consciousstyleguide.com/) is a resource for inclusive writing and editing, including questions around pronoun use and preferred terms.

Perspectives from a Scientist Editor

Brooke LaFlamme

I started my editorial career 5 years ago as a scientific editor at Nature Genetics, less than 2 years after receiving my PhD. In 2017 I became Chief Editor of Communications Biology, a new open-access journal in the Nature Research portfolio. During this relatively short time in publishing, I have learned quite a lot about myself and what the role of the editor is and should be. The transitions I've experienced—from bench scientist to editor to manager—have been exciting and challenging, particularly as publishing is undergoing its own transformation. Here I share a few thoughts about what being an editor means to me and my views on the future of scientific publishing.

A "Failed Scientist"?

I didn't begin my scientific training with dreams of becoming an editor. At that time, I had no concept of what either academic or professional editors did or what a career in scientific editing would even look like. As with most young scientists, I started graduate school with the assumption that I would end up as a professor after finishing my PhD and postdoctoral training. But I now realize there had been a few signs along the way pointing toward my eventual career as an editor. While I took great joy in my research, I found that I preferred to spend my time reading papers and learning about science outside of my own research focus. I also found that unlike many of my peers, I actually enjoyed writing papers and helping others edit and write their manuscripts.

One does not stop being a scientist immediately upon leaving academia. "Scientist" is not a job description; it's a way of approaching the world.

In the end, I realized that a long-term career in research was not a fit for me, for many different reasons. Does this make me a "failed scientist," a term sometimes used by academic researchers to refer to professional editors? That depends on your definition of success as a scientist. If the goal of scientific training is to produce more professors, then I suppose I am a failure. But I disagree with this narrow view. One does not stop being a scientist immediately upon leaving academia. "Scientist" is not a job description; it's a way of approaching the world. I apply the skills I learned in my PhD training every day as an editor: critical thinking, research skills, and data interpretation, in addition to domain-specific knowledge of the biological sciences. I am not a failed scientist. Neither are my many colleagues



working as professional editors. Rather, we are scientists specializing in scholarly publishing and peer review.

Focus on service

Before college, I had a number of jobs in fast food and retail that all had one thing in common: customer service. I learned that while the customer may not always be right, he or she always deserved respect and compassion. This lesson has served me well as an editor. From my first day at Nature Genetics, I understood that authors and reviewers are often stressed and anxious, and that they are always juggling many things at once. My job was to make decisions quickly and fairly. I truly do believe that publishers—yes, even commercial publishers—add quite a bit of value to the process of disseminating research results and making sure they are accessible and valuable to future generations. But as an editor, I believe the main value I add is alleviating some of the stress built into the publication process for academic researchers. We know that a lot is on the line for our authors, regardless of which journal they have chosen to submit their manuscript to. Whether a given manuscript is rejected or ultimately accepted, I strive every day to treat each author-and each reviewer-with professionalism and respect so that they always know where they stand. Now that I am Chief Editor of a journal, it's also my responsibility to make sure my journal's editors do the same.

I believe the editorial role is most valuable and effective when editors act as mediators with the aim of providing authors with constructive feedback focused on the facts.

As a professional editor, I do feel that I have a privileged position. I have the luxury of seeing the big picture of what is submitted to the journal and how manuscripts change throughout peer review, without feeling directly invested in any single result or research area. I also realize that I hold a lot of power-I decide the scope of the journal, the editorial thresholds and, ultimately, whether any given manuscript is published in my journal. As the "publish or perish" culture becomes ever more competitive for researchers, I keep in mind my privileged position and don't take it personally when authors or reviewers occasionally take out their frustration on me. However, I also see it as my job to make sure they don't take it out on each other during peer review. I've asked authors to rethink particularly defensive or terse replies to reviewers, and I've asked reviewers to rephrase unconstructive or unprofessional comments. I believe the editorial role is most valuable and effective when editors act as mediators with the aim of providing authors with constructive feedback focused on the facts.

Launching Communications Biology: Challenges and Opportunities

The transition from manuscript editor to Chief Editor was in some ways no less drastic than my transition from bench scientist to editor. I still handle manuscripts, but I am now responsible for the overall editorial direction and strategy of the journal. At the same time, I need to oversee the day-today operations of the journal to ensure things run smoothly. Thus, I have to focus on both the big picture and the nittygritty details, often at the same time.

The journal is also quite different from *Nature Genetics*. One very obvious difference is that *Communications Biology* is open access, using an author-paid article processing charge (APC) model. This means I do not need to worry about exceeding page budgets, but I do need to ensure a steady stream of content that meets our editorial criteria. *Communications Biology* also differs from the *Nature*-titled journals in that we have external academic editors on our editorial board, in addition to in-house professional editors. My job has been to develop an editorial model that allows these 2 groups to work together for the common goal of publishing high-quality, significant advances for specialized audiences across the biological sciences. As we only started publishing in January 2018, this is of course still a work in progress.

I believe that in order to attract the best research from a diverse array of scientists, our editorial board, in-house editorial staff, and reviewer pool should reflect the diversity of the biological research community, in terms of gender, ethnicity, geographical location, career stage, and expertise. I have written editorials explaining my vision for Communications Biology,^{1,2} but in a nutshell the goal is for the journal to be as inclusive as possible so that we can be a journal for the community of all biologists. I believe that in order to attract the best research from a diverse array of scientists, our editorial board, in-house editorial staff, and reviewer pool should reflect the diversity of the biological research community, in terms of gender, ethnicity, geographical location, career stage, and expertise. I also view the journal as a platform for researchers' individual voices and stories. Beyond research and reviews, we have started publishing Q&A articles highlighting the journeys of and challenges faced by early career scientists. In October, we started a Reviewer of the Month program in an effort to show the human face of peer review and highlight the fact that reviewers contribute significantly and positively to the scientific process. As the journal grows, I hope we are able to offer more opportunities for scientists' voices to be heard.

A View to the Future

Although I am still relatively new to the industry, I have already witnessed many changes in scholarly publishing and even in the company I work for. I started at Nature Publishing Group and, without changing desks, found myself at Springer Nature. In that time, we've seen the rise of preprint usage among biologists, technological changes and the adoption of digital first publishing, and a new focus by commercial publishers on providing services and platforms for all stages of the research life cycle—not just publication. The conversations going on right now in the scientific community examining the role and value of publishers will ultimately determine the direction taken. However, I do have hopes for what the future of scientific publishing might look like. If traditional markers of prestige, such as journal brand and impact factor, become less important, I hope that researchers might consider those factors that actually signal the inherent quality of a journal: the level of author service provided by the editors and staff, the commitment of the journal to ensuring reproducible and robust science, the visibility and reach of the journal, and of course the quality of the final published content. Regardless of the changes to come in scientific and scholarly publishing, I think editors and publishers will have a role to play in facilitating the dissemination of research so that it can be used and built upon by others well into the future.

References

- 1. Introducing Communications Biology. Commun Biol 2018;1:9, https://www.nature.com/articles/s42003-017-0012-4.
- 2. Thank you to our authors, reviewers, and readers. Commun Biol 2018;1:127, https://www.nature.com/articles/s42003-018-0138-z.

Advancing Science through Diversity and Inclusion in the Editorial Process: A Case Study

Monica Rivera Mindt, Robin C. Hilsabeck, James Patrick Olsen, Micah J. Savin, Cara L. Crook, and Yana Suchy

Science clearly benefits from diversity and inclusion. Still, women and individuals from culturally and linguistically diverse backgrounds within the United States are underrepresented across the scientific spectrum, including in academic, editorial, and scientific leadership positions. This case study details how the editors of one journal, *The Clinical Neuropsychologist (TCN)*, created and implemented a strategic plan to increase diversity and inclusion on its editorial board, among ad hoc reviewers, and in manuscript submissions. The outcomes to date, future directions, and a call to action to other scientific journals and publishers to actively foster diversity and inclusion are discussed.

Introduction

In 2015, Dr Yana Suchy became the Editor-in-Chief of one of the oldest journals in the field of neuropsychology, *The Clinical Neuropsychologist* (*TCN*). *The Clinical Neuropsychologist* was established in 1987, second only to *The Journal of Clinical Neuropsychology* (founded in 1979, currently known as the *Journal of Clinical and Experimental Neuropsychology*). Thus, it is noteworthy that Suchy was the first *female* Editor-in-Chief of this journal, joining only a small handful of women who served as editors over the past 30 years of all English-language neuropsychology journals.

MONICA RIVERA MINDT, MICAH J. SAVIN, and CARA L. CROOK are in the Department of Psychology, Fordham University and the Department of Neurology, Icahn School of Medicine at Mount Sinai; ROBIN C. HILSABECK is in the Department of Neurology, University of Texas at Austin Dell Medical School; JAMES PATRICK OLSEN is in the Department of Psychology, Fordham University; YANA SUCHY is in the Department of Psychology, University of Utah. Correspondence should be addressed to MONICA RIVERA MINDT,

PhD, ABPP, Department of Psychology, Fordham University, E-mail: riveramindt@fordham.edu Indeed, although the field of clinical neuropsychology is about 55% female,¹ in 2016, women comprised fewer than 20% of editors of 15 prominent English-language neuropsychology journals and only about 30% of associate and consulting editors.²

When she first took over the journal, Suchy had many initiatives in mind, and an increase in representation of women and individuals from diverse backgrounds on the editorial board was one of them. To give credit where credit is due, Suchy was inspired by another woman, Dr Kathleen Haaland, who in her role as Editor-in-Chief of the Journal of the International Neuropsychological Society greatly increased the representation of women on that publication's editorial board. However, Suchy's vision went beyond solely increasing the number of women on the board. Specifically, she launched a well-informed, scientifically based, and comprehensive strategic program to (1) expand the journal content with a particular focus on encouraging the submission of manuscripts that dealt with culture, gender, and diversity; (2) improve scientific reporting practices in general and with respect to gender and culture in particular; and, last but not least, (3) inclusion and diversification of the editorial board.

With these goals in mind, Suchy was well aware that culture and gender both constituted fields of science in their own right and that scholars and advocates within neuropsychology devoted their scientific and professional careers to such topics. Additionally, as any editor is well aware, the job of processing manuscripts and assigning them to issues is complex and time consuming enough that little time is left for special initiatives. Wanting to do justice to her vision, Suchy decided that the best way to reach her goals was to delegate their implementation to experts in the field. To that end, she created a journal department that specifically focused on culture, gender, and diversity (Culture and Gender in Neuropsychology Department [CGND]) and appointed recognized and well-respected experts in the field as editors.

The collaboration between the editor-in-chief and the CGND has begun to show concrete outcomes. By consulting with the CGND editors, Suchy was able to identify

CASE REPORT

CONTINUED



Figure 1. Prevalence of consulting editors on The Clinical Neuropsychologist (TCN) editorial board from 2015-2018.

individuals within the field who would be appropriate candidates for the TCN editorial board, thereby increasing its gender equality and diversity. Consequently, although in 2015, only 23% of TCN consulting editors were women and only about 2% were individuals from diverse backgrounds, by 2018, these numbers increased to 50% and 13%, respectively (Figure 1). These accomplishments have been recognized by the TCN publisher (Taylor & Francis), and in 2017, Suchy was invited to present a poster about the journal's efforts at the publisher's yearly "Scholarly Summit" in Washington, DC. Furthermore, in 2018, TCN published its first special issue on gender and career advancement in clinical neuropsychology (volume 32, issue 2). These accomplishments are encouraging, yet we are well aware that more can be achieved over time. The remainder of this article outlines the development of the CGND and its successes to date as well as additional planned steps and goals to support and further enhance the culture and gender initiatives initially envisioned by Suchy.

The Culture and Gender in Neuropsychology Department Overview

The CGND was initially conceived in 2016. Today, it is led by two department editors, Drs Monica Rivera Mindt and Robin Hilsabeck, who are experts in cultural and gender topics, respectively, in neuropsychology. The mission of the CGND is to advance science, empirically based practice, editorial leadership, and professional development as they relate to culture and gender and to provide a safe environment and a transparent process for promoting discussions of diversity and inclusion and how they intersect within the field. In terms of process, the CGND editors work closely together in service of the department's missions. Moreover, they typically meet with the editor-in-chief on a bi-annual basis to review progress and coordinate future initiatives and communicate regularly between in-person meetings.

Ongoing Initiatives and Outcomes

To advance science and empirically based practice, the CGND prioritizes research that is inclusive and demographically representative of the populations being studied to help neuropsychologists better understand how culture and gender affect disease courses and progressions on the one hand, and neuropsychological services on the other. To this end, the CGND's first (and ongoing) strategic initiative was diversifying the journal's content to make it more representative and inclusive in two ways: (1) preparing special issues on topics pertaining to culture or gender or both and (2) soliciting articles for regular journal issues on culture- and gender-related themes. As noted earlier, *TCN* published its first special issue on gender and career

advancement in clinical neuropsychology in 2018. This special issue included articles addressing the gender pay gap, gender differences in professional identity and career satisfaction, the lack of women in leadership positions, and potential reasons for the leadership disparity.³ *TCN* is also slated to publish a special issue on normative data for a comprehensive battery of neuropsychological tests for Spanish speakers. An example of diversification of journal content can be found in *TCN*'s final issue of 2018 (volume 32, issue 8), which features 3 articles that provide scientifically driven, practical guidance for conducting neuropsychological evaluations with culturally diverse individuals, including transgender adults and ethnic-minority populations in Western Europe.

To advance editorial leadership, the CGND's second ongoing strategic initiative is to provide editorials on gender, cultural, and linguistic diversity. This is important because a key factor for initiating and sustaining editorial and scientific change is clearly communicating and contextualizing the relevant issues to the field. The CGND editors both contribute to these articles and solicit them from leaders in the field. The inaugural CGND editorial⁴ focused on the development of the CGND and highlighted this innovative approach to diversifying science and scientific publication.

To advance professional development, the CGND's third strategic initiative was to increase the representation of editors and reviewers from diverse backgrounds and to ensure that all reviewers had the resources and training needed to effectively evaluate diversity and inclusion when evaluating manuscripts. Suchy first asked the CGND editors to identify scholars in the field from diverse backgrounds (gender, culture, linguistics) who could potentially serve on the editorial board. Rivera Mindt and Hilsabeck contacted their networks, surveyed the field, and provided Suchy with a list of possible candidates. Suchy further screened all candidates (ie, investigated their publication records and whether they had been invited and agreed to review for TCN in the past). Individuals who appeared to be a good fit for TCN were then invited to serve on the editorial board. As a result of these efforts and as cited earlier in Figure 1, over the last 3 years, TCN's editorial board grew two-fold in its representation of women and six-fold in its representation of culturally and linguistically diverse individuals. This initiative is ongoing, and the CGND editors continue to actively work with Suchy toward their editorial goal.

Regarding editorial resources for authors and reviewers, *TCN* has developed a "Publication Guidelines Checklist" for authors and reviewers to facilitate the inclusion of important demographic and cultural information that should be routinely reported in manuscripts. The CGND editors also serve as a resource for questions and consultations from editors, reviewers, and authors on gender and culture. An equally important part of CGND's mission is to provide a safe environment for the discussion of gender and diversity in a transparent fashion. In 2017, Hilsabeck participated in two workshops at national conferences^{5,6} on gender disparities in neuropsychology and strategies to address them; in September 2018, Rivera Mindt presented the goals, missions, and activities of the CGND to the Council of Science Editors.⁷ The CGND also engages in discussions on social media (eg, Twitter, Facebook) and welcomes email contact.

Future CGND initiatives

The CGND is currently working on 3 important new Initiatives. First, in partnership with Taylor & Francis, CGND is developing methods to assess TCN's efforts to diversify the journal's contributors and content. Evaluating progress is important in guiding future strategic efforts to further advance diversity and inclusion. In this effort, we are identifying appropriate metrics and taking care to keep all data aggregated and anonymous. Second, CGND is preparing a survey to better understand the knowledge and training needs of TCN editors, reviewers, and authors concerning culture and gender topics pertinent to neuropsychological science. Based on the survey findings, CGND will develop a proposal for educating and training TCN constituents using multiple platforms (eg, online training resources, Webinars, indiviudal consultation). Third, CGND is developing a reviewer mentorship program for students and individuals from diverse backgrounds to help them learn how to assess manuscripts and remain involved in the editorial process over time. In the future, the CGND plans to provide training materials on the TCN Web site to address subjects such as reducing implicit bias.

Recommendations

The ongoing and future initiatives detailed in this case study can serve as recommendations for concrete strategies that editors can use to advance diversity and inclusion in their own journals. In addition, given the successful outcomes that *TCN* has already achieved in terms of diversifying its editorial board, here are specific recommendations to help others diversity their editorial boards:

- **1. Reach Out**: Actively identify people who are diversity scholars or engaged professionally in advocating diversity and ask them for the names of others they know personally or know of who have diverse backgrounds. Then research and communicate with the scholars to find those who would be a good fit for your board.
- Keep At It: Practice sustained commitment to diversity to obtain serious "buy-in" from individuals of all backgrounds. This is a long-standing challenge that will require time and active efforts to address.

3. Leverage Your Resources: Take advantage of educational opportunities regarding diversity. The rapidly changing landscape means that it is easy to inadvertently say or do something that will end up being counterproductive to your goal.

Conclusions

Science benefits from diversity and inclusion.^{8,9} A core path toward this goal is to diversify the editorial process, and the aim of our discussion was to share how one journal is systematically pursuing this goal. Over the last 3 years, TCN has increased diversification and inclusion through the dedicated vision and leadership of TCN's Editor-in-Chief, Dr Suchy, the work of TCN's CGND, and partnership with TCN's publisher, Taylor & Francis. Together, these efforts have resulted in the diversification of journal content and the TCN editorial board, as well as initiatives to promote increased knowledge and understanding of the value of diversity and inclusion to TCN's constituency and among the broader field of neuropsychology. Based on the results of TCN's efforts over this relatively short time frame, it is clear that diversification and inclusion of the editorial process are tangible and achievable goals. We present this case study as a call to action for other journals and publishers to follow suit and collectively diversify science.

Acknowledgments: This work was in part supported by an Alzheimer's Association Research Grant to Promote Diversity (AARGD-16-446038) to MRM and National Science Foundation grant (NSF GRFP-1839284) to MJS (Mentor: MRM).

Disclosure: The authors report no conflicts of interest.

References

 Sweet J, Benson L, Nelson W, Moberg P. The American Academy of Clinical Neuropsychology, National Academy of Neuropsychology, and Society for Clinical Neuropsychology (APA Division 40) 2015 TCN professional practice and 'salary survey': professional practices, beliefs, and incomes of US neuropsychologists. Clin Neuropsychol 2015;29:1069–1162. https://doi.org/10.1080/13854046. 2016.1140228

- Sachs B, Benitez A, Buelow M, Goodling A, Schaefer LA, Sim AH, Tussey CM, Shear PK. 2018. Women's leadership in neuropsychology: historical perspectives, present trends, and future directions. Clin Neuropsychol 2018;32:217–234. https://doi. org/10.1080/13854046.2017.1420234
- Hilsabeck R. Editorial: Raising awareness about gender bias and disparity in clinical neuropsychology and a call to action. Clin Neuropsychol 2018;32:183–185. https://doi.org/10.1080/13854046.2017. 1418023
- Rivera Mindt M, Hilsabeck R. TCN culture and gender in neuropsychology department: inaugural editorial. Clin Neuropsychol 2018;32:1353-1355. https://doi.org/10.1080/13854046.2018.1525110
- Suhr JA, Ready R, Rosen WG, Hilsabeck RC, Ploetz DM The changing face of neuropsychology: gender disparities and strategies for addressing them. CE workshop presented at the 37th annual conference of the National Academy of Neuropsychology, Boston, MA, 2017.
- Hilsabeck RC, Sweet J, Forrest B, Sachs B, Kubu C. Gender and the profession of neuropsychology: where we've been and where we need to go. CE workshop presented at the 15th Annual Conference of the American Academy of Clinical Neuropsychology, Boston, MA, 2017
- Rivera Mindt M. 2018. The Clinical Neuropsychologist: increasing diversity & inclusion. Council of Science Editors, Technica Editorial Services Webinar: The Peer Review Ecosystem: Where Does Diversity & Inclusion Fit In? [accessed 2018 Oct 9]. https://www.youtube.com/ watch?v=7cixedlVRoo&feature=youtu.be.
- Mitchell A, Gedamu J. Science benefits from diversityand as publishers we have a role to play. Springer Nature. [accessed 2018 Oct 9]. https://www.springernature.com/gp/ advancing-discovery/blog/blogposts/science-benefits-fromdiversity/15961080.
- Nielsen M, Carter W, Londa S. Making gender diversity work for scientific discovery and innovation. Nat Hum Behav 2018;2:726– 734. https://doi.org/10.1038/s41562-018-0433-1

Resource Nook

Many online resources exist for understanding and dealing with plagiarism and reuse permissions, including:

Committee on Publication Ethics

https://publicationethics.org/search/site/plagiarism

STM Association Permissions Guidelines

https://www.stm-assoc.org/copyright-legal-affairs/permissions/permissions-guidelines/

Creative Commons

https://creativecommons.org/licenses/

Knowledge Exchange: Roundtable Discussions

MODERATOR:

Anna Jester

Director of Sales & Marketing eJournalPress Washington, DC

SPEAKERS:

Tim Cross

Business Development Manager Westchester Publishing Services Lawrence, Kansas

Jennifer Lin

Director of Product Management Crossref San Francisco, California

Eric Pesanelli

Editorial Art Manager American Physiological Society Bethesda, Maryland

Jennifer Pesanelli

Deputy Executive Director for Operations Federation of American Societies for Experimental Biology

for Experimental Biology Bethesda, Maryland

Howard Ratner

Executive Director CHORUS New York, New York

Emma Shumeyko

Publishing, Managing Editor American Society for Clinical Pharmacology & Therapeutics Alexandria, Virginia

Heather Staines

Director, Partnerships Hypothes.is New York, New York

Emily Johnston

Business Development Director Typefi Oshkosh, Wisconsin

REPORTER:

Marissa Ayotte Special Projects Manager eJournalPress Rockville, Maryland

The Knowledge Exchange provides attendees the opportunity to discuss a rotating selection of topics with speakers and fellow attendees in an intentionally interactive format. Two 25-minute rounds of discussion keep the conversation flowing. Following are summaries from 2 of the conversations from the 2018 CSE Annual Meeting.

DOIs for Peer Reviews

As of November 2017, Crossref started accepting submissions of DOIs for peer reviews. Jennifer Lin explained that there was a need to attach peer reviews to the scholarly record and also that reviewers can get credit for those reviews. Reviews can now be included in the map of scholarly activities by connecting the DOI of the review to the DOI of the published article. Before this was made official, some reviews had been registered as a dataset and there was no consistency. The metadata schema for reviews is different from the schema for papers, so a new schema was created. Metadata includes items such as DOI, peer reviewer, title, date, license, competing interests, recommendation, and version of manuscript reviewed.

A question was raised about the fate of reviews of rejected manuscripts. As of this time they are not collected because there is no final published article to which they can be linked. Another question was asked regarding the possibility of earlier versions of those papers being made available so the concerns raised by reviewers can be seen in the original version. Crossref does not set policies about revealing reviewer names; they leave that to the journals. Some journals may elect to get a reviewer's affirmative confirmation. Two options for reviewer confirmations could be to show reviews to authors only or to share them publicly.

Some suggest that peer review is not a piece of scholarship worthy of a DOI of its own, but others think this may even lead to additional research where the researcher can reference the DOI of a reviewer's comments.

Preprints: Policies and Other Thoughts

The Federation of American Societies for Experimental Biology (FASEB) was compelled by emphatic pressure from their author community to introduce a preprint option. Authors felt preprints were evolving, and FASEB would miss an opportunity if they did not move ahead and implement this alternative for authors. They had to consider many new concerns when creating their policy. For instance, they had to define what a preprint server is and whether personal websites and institutional repositories qualify. (They do not.) Education of the author community is key, especially when defining what is acceptable and what is not. Some criteria to consider is whether the server is maintained by a reputable organization and if DOIs are assigned.

Policies regarding preprints are changing and different for various publishers. Prior to submitting their paper to a preprint server, authors must do their research. Some journals consider a manuscript to have been "previously published" if placed on a preprint server and therefore not viable for consideration. Authors need to be certain their chosen journal allows them to post their paper on a preprint server, and also that the journal publisher considers a given preprint server a reputable and acceptable option. Some noted that the incentive for journals to publish a research paper is diminished if it is already "out there." Retractions of preprints is an evolving concern. Some preprint servers, such as bioRxiv, will make note of retraction where authors also have the ability to remove a preprint from the website. There is not yet a clearly defined industry standard for retractions of preprints.

Additional information can be found at https://www. councilscienceeditors.org/events/previous-annual-meetings/ cse-2018-annual-meeting/.

Short Course on Publication Management

FACULTY:

Nancy Devaux

Process Improvement Manager Sheridan Journal Services Waterbury, Vermont

Denis Baskin

Executive Editor Journal of Histochemistry and Cytochemistry Redmond, Washington

Amy McPherson

Director of Publications Botanical Society of America Managing Editor, *American Journal of Botany*

Shari Leventhal

Managing Editor Clinical Journal of the American Society of Nephrology Derwood, Maryland

Patty Baskin

Executive Editor Neurology Journals American Academy of Neurology Minneapolis, Minnesota

Ken Heideman

Director of Publications American Meteorological Society Boston, Massachusetts

REPORTER: Ken Heideman

Symbiosis with Your Vendors

Nancy Devaux, Process Improvement Manager for Sheridan Journal Services (SJS), discussed the various roles production vendors perform. A journals program may need assistance with a single service or task (e.g., graphics processing, copyediting, or proofreading), with multiple services aligned in a process (e.g., article composition, author proofing, and revisions), or with a more comprehensive level of service (e.g., peer-review management or full issue production). There are three primary considerations for a journal publisher or managing editor when seeking assistance from a vendor: effort, cost, and control. Devaux analyzed each of the service categories in terms of levels of effort, different kinds of costs, and to what extent editors want (or need) to maintain control "in the weeds." Devaux also shared her direct experience (and that of the SJS staff) as to what makes for a great relationship between managing editors and production editors. Via many examples, she made it clear that being in sync on expectations, on the staging and scheduling of processes, on working through changes, and on communication styles and needs allow the relationship to succeed. Discussions between journals and their vendors are critical, particularly regarding anything that will affect schedule, guality, or the journal's reputation. Finally, journals' managing editors should rely on their vendors for their expertise.

Understanding Your Editor, Reviewers, and Authors

In this presentation, Denis Baskin, Executive Editor of the Journal of Histochemistry and Cytochemistry, helped

participants learn how scientists view publishing and how publishing fits into the professional life of a scientist. He addressed the potential conflicts that can arise as a result of editorial office personnel working with editors, authors, and reviewers that often have limited knowledge of the process of scientific publication, whereas editorial office personnel are often unfamiliar with the different perspectives of editors, reviewers, and authors, and what these individuals expect in their interactions with an editorial office. This presentation focused on the attitudes and expectations that editors, reviewers, and authors bring to their roles in the publication process.

Image Manipulation

Baskin discussed the problem of image fraud in scientific misconduct in this presentation, and he focused on the available tools an editorial office can use for detecting image manipulations. The presentation explained the differences between acceptable and unacceptable alterations in images and suggested policies an editorial office can follow in dealing with cases of image manipulation and suspected image fraud.

What Does a Managing Editor Do?

Amy McPherson, Director of Publications of the Botanical Society of America and Managing Editor of the American Journal of Botany, spoke about the myriad tasks and central role of the managing editor in an editorial office. This person handles a lot of responsibilities, some of them technical in nature, but the most important ones involve working with other people: staff; authors, reviewers, editors, and readers; society members and boards; publishers and vendors; and colleagues that one meets through professional meetings and interactions. She discussed various ways managing editors can handle these relationships successfully, drawing upon her many years of experience. These include treating everyone with respect, developing processes and policies that help the authors' work, for example, making manuscript submission simple, encouraging data sharing, and structuring metadata so work is discoverable; being supportive and flexible with reviewers and editors; planning productive editorial board meetings; and forging relationships with freelancers, society members, vendors, publishers, and colleagues in publishing-related groups (Council of Science Editors, Society for Scholarly Publishing, International Society of Managing and Technical Editors, etc.). In the end, the managing editor brings everyone

to the table to collaborate on serving science through publications—and aspires to smooth day-to-day running of the editorial office, making it seem effortless (when we all know there is a lot of effort that goes into it!).

Mastering Peer Review Systems (Or at Least Understanding How They Function!)

Shari Leventhal, Managing Editor of the *Clinical Journal* of the American Society of Nephrology (CJASN), provided a brief overview on the concept of peer review, followed by an explanation of how peer-review systems work and how they can be utilized beyond the scope of peer review. Peer-review systems enable editorial teams to manage multiple manuscripts in varying stages of peer review simultaneously, based upon the specific customizable needs of a journal (or multiple journals). Additional benefits of peer-review systems include the ability to check for plagiarism and exporting reporting metrics.

Help: How Can I Find Qualified Reviewers?

In this presentation, Leventhal recognized the difficulty editorial teams have in identifying reviewers and provided examples of how her editorial team at *CJASN* uses their peer-review system to find reviewers. The first example she provided is identifying areas of expertise among the editorial board members and searching for these specific terms within a field in the peer review system. Leventhal then demonstrated how the American Society of Nephrology (ASN) journals use Clarivate's Referee Locator to identify potential reviewers based upon which authors have recently published on similar topics. Finally, she discussed how showing appreciation and recognition of reviewers can help encourage them to review again.

Ethics 101: Basic Scientific Integrity for the Editorial Office Nuts and Bolts: Influencing Innovation in Your Journal

Patty Baskin, Executive Editor of *Neurology* Journals, presented these topics, which are critically important in today's scientific publishing world, from the perspective of her many years as an editor and manager.

We Can All Manage To Lead

Ken Heideman, Director of Publications at the American Meteorological Society, made this presentation. The main theme was how important effective leadership is in an organization as small as 1 person or as large as 1000 and beyond. Heideman emphasized that leadership is not just for those in "leadership positions" but for all of us, no matter what organization we work for. The concept of "low-hanging fruit" was introduced, where dozens of simple but often overlooked leadership and interpersonal principles can be used in the workplace that require little energy and no cost but make a world of difference to the morale and productivity of teams of all sizes. Heideman noted, "Good work does not make for happy employees; happy employees produce good work."

Heideman noted, "Good work does not make for happy employees; happy employees produce good work."

In fact, these principles are so basic it is amazing how many managers fail to even think about them, much less apply them. But it is precisely because the bar is so low for many supervisory staff that we can all be management superstars simply by implementing what is right in front of our eyes.

All full list of all of the presentations from the 2018 CSE Annual Meeting, including session descriptions and most presentation slides, can be found online at https://www.councilscienceeditors.org/events/previous-annual-meetings

How to Do Editorial Research

MODERATOR:

Mary Warner American Pharmacists Association Washington, DC

SPEAKERS: Jeanette Panning American Geophysical Union Washington, DC

Morgan Sorenson American Academy of Neurology Minneapolis, Minnesota Jeannine Botos Oxford University Press New York, New York

Kelly Anderson American Society of Civil Engineers Reston, Virginia

REPORTER: Mary Warner

The best editorial operations not only run well, but also know *why* they run well. And to know why your operations are running well, you need to have information (data) about your journal and its readership. At the CSE 2018 Annual Meeting, the session "How to Do Editorial Research" aimed to provide an overview of how to collect that data through editorial research, including tips on getting started and case studies from successful research projects.

The session began with an overview of how to get started on an editorial research project, including formulating the question you want to answer about areas such as impact factor trends, peer review, submissions, authorship, business models and pricing, or readership (see Figure 1 for a list of sample questions). Mary Warner, speaking for Jeanette Panning, summarized the methodology for conducting editorial research-surveys, metrics, and data mining. She emphasized using your in-house manuscript submission and tracking system to pull information on submissions by authorship affiliation, gender, society membership, etc.; accepted versus declined manuscripts by author and reviewer characteristics; reviewer quality; and trends over time (Figure 2). Searching online databases such as Clarivate's Journal Citation Reports, Google Scholar, and PubMed can also yield valuable data to help answer your question.





Figure 2. Suggestions for making use of the reporting capability of your manuscript submission system.

Warner then summarized survey methodology, including tips for designing your survey to ensure valid results. Best practices include the following:

- Keep it short—no more than 10–15 minutes to complete
- Have no more than 5 choices for ratings
- Use succinct (simple) wording to avoid confusion
- Include no more than 2 open-ended questions
- Use responsive design to allow completion on mobile devices
- If possible, offer an incentive (access to results, raffle for a gift card, etc.)

The session continued with 3 cases studies: Morgan Sorenson described efforts to evaluate social media effectiveness, Jeannine Botos described a reviewer incentive program, and Kelly Anderson discussed identity verification of author-suggested reviewers.

Sorenson shared results from a study at the American Academy of Neurology to determine if there was value in their efforts to promote papers via Twitter and Facebook and whether one type of social media was more effective than another. They compared web access numbers for 6 papers on similar topics—some promoted, some not; surveyed authors to see if they provided their own promotion; and compared results of web traffic from Twitter and Facebook. Results showed that less than 1% of web traffic was coming from social media, with Twitter having a higher click rate, and that authors were generally not doing their own social media promotion. Based on these results, they decided not to increase time spent on social media while possibly using more engaging methods on Twitter and focusing on other ways to drive traffic to the journal's website.

Sorenson concluded by sharing a few tips for analyzing social media results, including using the free analytics provided by both Facebook and Twitter. These reports can help determine who your top followers are, what topics are getting the most attention on social media, and what times are most effective to post new content for your readership.

Botos described work done by staff of the Journal of the National Cancer Institute (JNCI) to implement a reviewer incentive program, through which \$50 would be donated to Cancer Care's patient education programs for every highquality peer review submitted within 7 days of accepting the invitation. Their hypothesis was that this program would speed up the peer-review process and motivate reviewers to accept invitations.



Figure 3. Results and editor feedback to the question "Do you take steps to verify author suggested reviewer's identity?"

Reviewers were informed of the program in their invitation, acceptance, and reminder letters and the quality of each review was assessed by the JNCI editorial staff. Numbers and percentages of good quality peer reviews completed in 7 days or less along with peer reviewer acceptance and turnaround times were compared during 2 periods: the 15 months of the program and 8 months before it began. The results indicated that the number of good quality peer reviews completed in 7 days or less increased by 5% for initial submissions and by 16% for revisions. After 15 months, mean peer reviewer turnaround time was reduced by 0.8 days for initial submissions and by 0.4 days for revisions. The team concluded that while the program was associated with an increase in the speed of good-quality individual reviews and with small improvements in average on-time peer reviews, it did not lead to a substantially faster peer-review process. The program was ended at that point.

Anderson then shared work recently done at the American Society of Civil Engineers (ASCE) on identity verification of author-suggested reviewers. This work resulted from a case of fraudulent peer review in which an author had provided the name of a qualified researcher but with an email address that allowed the author to review his own paper. ASCE staff wanted to discern the frequency of editors using authorsuggested reviewers and whether the editors vetted the individuals.

Using SurveyMonkey, editors and associate editors were asked various questions regarding the use of authorsuggested reviewers including how frequently they used author-suggested reviewers, any methods used to verify reviewer identity, and if editors felt the names were useful. The data showed that 86% of the respondents use author-suggested reviewers frequently or sometimes. Most indicated that suggested reviewers were used only when needed, specifically in specialized niche fields where the pool of reviewers is small. The data also showed that 56% take steps to verify a reviewer's identity, institution, expertise, and affiliation (if any) with the author, using tools such Google Scholar and the journal's database for reviewer history (Figure 3). Finally, 70% of respondents indicated that it is valuable to have author-suggested reviewers, but it is necessary to verify the reviewer's affiliation and expertise through various sources to avoid reviewer fraud. As a result of this work, ASCE removed the option for authors to supply an email address for suggested reviewers. Instead, authors supply a reviewer's name and institution, leaving the responsibility for finding and verifying a reviewer email to the editor. Anderson concluded that as reviewer misconduct becomes a larger problem in scholarly publishing, it is important to survey editors periodically to see where policies can be tweaked to avoid ethical issues.

Gatherings of an Infovore*

Disruptions in Scholarly Publishing Barbara Meyers Ford

Disruption (*noun*): an interruption in the usual way that a system, process, or event works (from the Cambridge Business English Dictionary © Cambridge University Press)

Taking the definition of disruption literally, in the 45+ years l've been in scholarly publishing there have been only 2 true disruptions: the application of computer technology to the publishing process and the introduction of the open access business model. However, there have been significant issues which have challenged publishing professionals in maintaining standards in the areas of accuracy, quality, veracity, and timeliness of content. These issues focus on several aspects of a publishing program, most frequently cost containment, ethics, and peer review.

This distinction between actual disruptions and issues is my own. IMHO we often aren't as careful with terminology as we might be—especially considering what we all do every day. That being the case, organizing this column was more challenging than usual. Nonetheless, if you'll bear with my attempt, however awkward, those of you interested in delving into some of the controversies regarding these topics should find an article or two worth your time to read.

Disruption



"Help TRANSPOSE Bring Journal Policies into the Open" (November 1, 2018)

http://scholarlykitchen.sspnet.org/2018/11//01/helptranspose-bring-journal-policies-into-the-open

*A person who indulges in and desires information gathering and interpretation. The term was introduced in 2006 by neuroscientists Irving Biederman and Edward Vessel. Unlocking Research Tag Archives: disruptors "Disruptive innovation: notes from SCONUL winter conference" (September 26, 2018)

https://unlockingresearch-blog.lib.cam.ac.uk/?tag= disruptors

"Alternative Ways of Obtaining Scholarly Articles and the Impact on Traditional Publishing Models from a UK/ European Perspective" (February 16, 2018) https://doi.org/10.1080/00987913.2018.1433906

"Takeaways: Disruptors in Professional & Scholarly Publishing" (November 9, 2017)

https://www.humanitiesebook.org/scholarly-publishing/

Open Access



"From pilot to launch: A step-by-step approach to developing an OER program and OA journals" (October 23, 2018)

www.libraryconnect.elsevier.com/articles/pilot-launch-stepstep-approach-developing-oer-program-and-oa-journals

"Open Future" (September 7, 2018)

https://www.economist.com/open-future/2018/09/07/an-explosion-of-openness-is-about-to-hit-scientific-publishing

"MIT Trials First U.S. 'Read and Publish' Agreement (June 15, 2018)

https://www.insidehighered.com/quicktakes/2018/06/15/ mit-trials-first-us-%E2%80%98read-and-publish%E2%80% 99-agreement?width=775&height=500&iframe=true

Financial Issues



"OASPA Offers Support on the Implementation of Plan S" (October 2, 2018)

https://oaspa.org/oaspa-offers-support-on-theimplementation-of-plan-s/

"Open Access Offers Financial Sustainability, as Publishers Increasingly Combine Article Publishing and Access in Deals" (April 22, 2018)

www.openscience.com/open-access-offers-financialsustainability-as-publishers-increasingly-combine-articlepublishing-and-access-in-deals/

"Sustainable Publishing Strategies In An Age of Disruption" (March 13, 2018)

https://hub.wiley.com/community/exchanges/discover/ blog/2018/03/12/sustainable-publishing-strategies-in-anage-of-distruption

Ethics



"To thwart predatory publishing, we need to work together" (October 11, 2018)

www.elsevier.com/connect/to-thwart-predatory-publishingwe-need-to-work-together

"How Is the Scholarly Publishing Community Evolving Alongside the Wider Culture?" (June 8, 2018) https://hub.wiley.com/community/exchanges/discover/ blog/2018/06/08/how-is-the-scholarly-publishingcommunity-evolving-alongside-the-wider-culture

Peer Review



PEER Review Feedback

"Assault on peer review a new threat" (December 6, 2017) http://www.theintelligencer.com/commentary/article/ Assault-on-peer-review-a-new-threat-12409840.php

"Peer review has some problems—but the science community is working on it" (July 12, 2018) http:// theconversation.com/peer-review-has-some-problems-butthe-science-community-is-working-on-it-99596

"When to trust (and not to trust) peer reviewed science" (July 12, 2018)

https://theconversation.com/when-to-trust-and-not-to-trust-peer-reviewed-science-99365

"Peer Reviews Either Sandbag or Propel Agile Development" https://www.infoq.com/articles/peer-reviews-sandbagpropel

Book Review: Cork Dork

Michael Friedman

Cork Dork: A Wine-Fueled Adventure Among the Obsessive Sommeliers, Big Bottle Hunters, and Rogue Scientists Who Taught Me to Live for Taste. Bianca Bosker. New York: Penguin, 2017. 329 pages. ISBN 978-0143128090.



This book traces the year I spent among flavor freaks, sensory scientists, big-bottle hunters, smell masterminds, tipsy hedonists, rule-breaking winemakers, and the world's most ambitious sommeliers. It is not a wine buyer's guide, or a credulous celebration of all winedrinking traditions. In fact, it explores the ways in which the industry is—in the words of one Princeton University wine economist—"intrinsically bullshit-prone." But clear aside the bullshit, and what remains are insights that have relevance far outside the realm of food and drink.

—Bianca Bosker

As did just about all of us in the Council of Science Editors' Book Club who read this book last spring, I found Bosker's writing to be funny, informative, and engaging. I guess that's no surprise given that she is an award-winning journalist who

MIKE FRIEDMAN is the Journals Production Manager at the American Meteorological Society.

has written about food, wine, architecture, and technology for *The New Yorker* online, *The Atlantic*, *The New York Times Style Magazine*, *Food & Wine*, *The Wall Street Journal*, *The Guardian*, and *The New Republic*. She was technology editor of *The Huffington Post* when she heard about the World's Best Sommelier Competition, and that was all it took for her to decide to dive into what turned out to be an 18-month adventure in which she ended up becoming a certified sommelier herself.

What a wild ride this book was. From laugh-out-loud funny to the sober realization at just how serious people can be about wine (no pun intended), Bosker offers an insider's view of just how...umm...unique the world of wine is. Starting as a complete novice, Bosker's thorough exploration of this realm—from tasting, to service, to the science involved—ends up with her complete conversion to an expert taster whose brain actually changes from her experiences. And going along on that ride with her was a thrilling and educational roller coaster.

She makes easy connections with leading sommeliers (including Morgan, her idiosyncratic guide through this alternative universe), sensory scientists, wine merchants, and obsessed wine drinkers around the world. Her enchanting style, and fumbling, humorous adventures navigating the various corners of the wine universe make this book an easy and fun read. A favorite (recurring) theme in the book is the range of bizarre, completely off-the-wall descriptions the blind tasters, especially Morgan, come up with when summarizing a wine. For example, Morgan describes an Australian Shiraz as "That 'Incredible Hulk just stepped out of the nuclear reactor' type of thing". Other adjectives of tastings included "wet asphalt," "asparagus pee," and "dried pomegranate."

Reading *Cork Dork* was inspiring, and sparked an interest in exploring wine myself (though much more modestly than Bosker). And I wasn't the only one: The book inspired several of us to set out on a wine-tasting evening during the CSE Annual Meeting in New Orleans last May. I think I can speak for my fellow participants (you know who you are) in saying that we are all for making this an annual tradition. Look out Columbus!



Keeping up with science/Shari. Works Progress Administration poster. Library of Congress, Prints & Photographs Division, WPA Poster Collection [reproduction number LC-USZC2-802].

2019 Industry Calendar

International Society for Medical Publication Professionals (ISMPP) 2019 European Meeting January 22-23, 2019 London UK http://www.ismpp.org/european-meeting

2019 CSE Annual Meeting May 4-7, 2019 Columbus, OH, USA https://www.councilscienceeditors.org

The Spirit of Scientific Publishing: Inclusion, Identity, Technology & Beyond *Program Co-Chairs:* Mary Billingsley, American Academy of Child and Adolescent Psychiatry Shari Leventhal, American Society of Nephrology

Society for Scholarly Publishing (SSP) Annual Meeting May 29-31, 2019 San Diego, CA USA

https://www.sspnet.org

International Society of Managing and Technical Editors (ISMTE) North American Conference August 1-2, 2019 Durham, North Carolina, USA https://www.ismte.org/

6th World Conference on Research Integrity

June 2-5, 2019 Hong Kong <u>http://www.wcri2019.org</u>

Association of Learned and Professional Society Publishers (ALPSP) Conference and Awards 2019 September 11-13, 2019 Beaumont Estate, Old Windsor, UK https://www.alpsp.org

Frankfurt Book Fair 2019

October 16-20, 2019 Frankfurt, Germany https://www.buchmesse.de/en

Charleston Conference 2019 November 5-9, 2019 Charleston, SC http://www.charlestonlibraryconference.com

Additional Industry Events can be found online at the CSE website at https://www.councilscienceeditors.org/

PROOF THAT SUPPORT MATTERS



FOR MORE INFORMATION, CONTACT US AT (919) 869-7977 OR JACK_NESTOR@TECHNICAEDITORIAL.COM



TRUSTED PARTNERS IN PUBLISHING ACCURATE, CREDIBLE, PEER– REVIEWED CONTENT

We provide high quality, customer-centric peer review and editorial management services, allowing publishers, editors, authors, and reviewers to focus on the scientific and technical aspects of publishing research.

CONTACT US to learn more about how our team can help streamline your publication's peer review process. info@salientcontent.com | 888-550-3343 There are about 34,550 active scholarly peer-reviewed journals, collectively publishing about 2.5 million articles a year.

(The STM Report, Fourth Edition)

How are you standing out?

Aptara provides innovation that will help set you apart from the rest.

Automate your page charge collection process

Research market presence of competing journals

Process and tag your video content for a consistent display, test-to-speech functionality and searchability.

Automate the production of your Abstracts and Conference Proceedings into XML, PDF, Responsive HTML and EPUB3



© 2016 Aptara, Inc. 3110 Fairview Park Drive, Suite 900, Falls Church, VA 22042 +1-703-352-0001 APTARACORP.COM

SCHOLARLY PUBLISHER SERVICES

Fresh Perspectives and Innovative Solutions for Your Publishing Program

When it comes to scholarly publishing, quality comes first. That's why we perform all of our journal publishing services in-house at our Lawrence, Kansas office. Combined with stellar customer service and personalized support, we offer the most comprehensive and flexible suite of scholarly publishing services to society and academic publishers.



e e ensuration, contact us at sates@attempt



810 East 10th Street, Lawrence, KS (800) 627-0326 allenpress.com