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Publication Ethics, Today's Challenges: Navigating and Combating Questionable Practices

Presented by Barbara Epstein, University of Pittsburgh; Jenny Lunn, American Geophysical Union; Duncan MacRae, Wolters Kluwer; Jayne Marks, Wolters Kluwer

The following is a transcription of a live presentation at the 2017 Charleston Conference.

Jayne Marks: Good morning, everyone. Thank you for coming to our Neapolitan session. We're really excited to be talking about this topic. My name is Jayne Marks. I am with Wolters Kluwer, and I am just introducing our panel of speakers for today. The idea for this session came out of a discussion I had at the Fiesole meeting back in the summer, which is the sort of a European equivalent of Charleston although much, much smaller. And we were talking with librarians and talking about how everybody sees all parts of the scholarly communication process now being impacted by, I would say, everything from poor behavior, maybe questionable behavior, to just outright fraud from lots of different players in lots of different places, and at some point I think we have to get together as a community and preserve the integrity of scholarly communication and figure out how we're going to tackle some of these poor behaviors. But, before we do that, I think we have to really understand what the breadth of what we're dealing with across the whole continuum.

So, I am delighted to introduce my panel today and we have, we have sort of broken the topic up into talking about the content and the authors and we have Jenny Lunn from the American Geophysical Union talking to us from their perspective and what she sees in terms of managing editorial content. Then Duncan MacRae, a colleague of mine at Wolters Kluwer, is going to talk to us about what we see in terms of the peer review process and what we have to look out for there, and we're delighted to have Barbara Epstein from the University of Pittsburgh to talk about the library perspective of how she helps researchers in her institution navigate this increasingly difficult landscape. So, thank you for joining us today. We hope it's going to be a lively discussion at the end and without further ado, I will hand it over to Jenny.

Jenny Lunn: Good morning, everyone. So, I am here as the representative of the kind of scientific

associations and societies and before delving fully into talking about publications, I just want to talk generally about ethics because scientific integrity and ethical—as a scientific association, we want to be the credible voice in Earth and space sciences. We need to be trusted by the scientific community, by policymakers, by the public, and to do that we need to set standards and we need to follow those standards ourselves. We introduced a Scientific Integrity and Professional Ethics policy back in 2011, which governs the behaviors of our members, our operations, our scientific meetings, our publications, and so on. That's just been updated very recently in 2017 with introducing a new section on harassment, which has become a big issue. Harassment and bullying in the sciences have come to prominence. In fact, we published an article about harassment, specifically, in astronomy and planetary sciences and particularly how women and women of color face bullying and harassment in the workplace. We've got a safe AGU program, which is a place for people to report harassment and get support.

The book on the bottom right just came out last week, edited by one of our members, and so on and so forth. So, I want to make the point before going on to publications to say that as a scientific association, scientific integrity and professional ethics is really critical. It's expanding across all of our operations and what we do.

But we are a publisher as well as an association. And just to give you some context, we've got 20 journals across the breadth of Earth, space, and environmental sciences, so for an association publisher, we're pretty large. So, the title of the session today refers to questionable practices, and Jayne already alluded really to the breadth that comes under that umbrella from an author not quite following the guidelines to outright deliberate fraud. So, there's really a lot that comes under that banner. Fortunately at AGU, we haven't really suffered from any fraudulent submissions per se, but we do have plenty of incidents of author ignorance, author bad practices, author complaints, and so on.

So, as a scientific organization, what is our role in mitigating against these questionable practices and dealing with them when they arise? Of course before the manuscripts even get to the stage of being submitted, we've got plenty of guidelines for authors. We've got so many resources on our website linked to from our manuscript submissions system. We review these regularly, we update them, we try to make sure they're linked to and visible from the right place. We really do try our best to make sure the authors have got all the resources and guidance that they need. Once the manuscript is submitted, of course we have a standard set of procedures for checking all the different aspects, the authorship, the content, the references, the data, and so on. Obviously the main purpose of that is to maintain standards, but that is the stage at which these questionable practices are identified. And once that questionable practice is identified, our role is to try and resolve it. If there is a complaint or a dispute, our role as an association is to mediate. But I have to say that one of our greatest assets as a scientific association in mitigating against these questionable practices is our own community and their self-policing of their own community. That is of great value to us.

What are some of the red flags that come up for us? What are these questionable practices in terms of this incoming content from authors? Adding an author to a paper is usually understandable, but removing an author from a paper is always a red flag. If someone requests this, we will not just accept it and remove the name. We will always investigate the reason. Our publications staff will ask the parties involved for the reasons, investigate, and there has to be a very good reason for them to remove it. If it gets really messy, the authors may have to—we ask them to withdraw the paper, sort out their problems, have a fight, and then come back to us when it is all solved. Of course we run plagiarism checks on all new submissions and resubmitted papers as well. Our red flag is a 15% match overall and a 5% match from any single source. Our editorial assistants will manually check anything crossing those thresholds. They'll look for the causes of the highest score and they'll leave notes for the editor when the editor comes to review the paper, and it's up to the editor's discretion how to deal with those. And a data statement is mandatory for submission to all AGU journals. So, our editorial staff will check the incoming submissions for that statement. We will not accept the statement data available by contacting corresponding author. We are cracking down on that. We're not accepting it. People need to have their data in a publicly accessible place,

so the red flag is someone who refuses to share their data. There has to be an incredibly good reason to do so and that is something we are really cracking down on at the moment.

When these questionable practices, these red flags arise, what do we do? Our role as a scientific association has to be just as a mediator. We're not judge, jury, or executioner, so we've got some limitations as to our abilities. But our starting point is always to assume an honest mistake. We have to spend some time working out what type of issue this is. How big or how serious is it? Is it just someone not quite following the rules? Is it a complaint? Is it just someone angry, one of the regular people who writes in and just gets angry, or is it a serious accusation of malpractice? We can do research based on the information that we have in our system, from the Internet, from people who might know the parties involved. We do our best to find out as much as we can. If there are two sides to it, we try and get both sides of the argument. We have to be fair and impartial. So, having assessed the situation, gathered evidence, we can then direct it to who can solve it. And I have to say that about 90% of our red flags are handled internally, either by our editorial staff or by the editors of the journals themselves, so the vast majority can be handled quite easily, but in those other cases that are more complex, we can escalate within the organization to the vice president for publications. We've also got a new vice president for ethics. We've got an ethics committees and in the cases of the most serious misconduct, that is not our responsibility and we have to transfer it to the author's institution who have the authority to investigate more serious problems.

So, in the majority of cases, most of those questionable practices are caused by author ignorance of guidelines and of procedures, despite all our best efforts to get them all the resources and guidelines that they need. So, it just reinforces that we need to keep on educating authors before we can discipline them. And although author ignorance is the primary cause of questionable practices, every party has got a role in mitigating against them so that is authors, editors, associations, institutions, publishers, everyone is actually responsible. We've got many years of dealing with these things, but every situation is nuanced and these standard ways of dealing with problems do help, but every situation does have to be handled on an individual basis. And in terms of some of the most difficult cases that we have, sometimes what first comes to our notice can just be the tip of the

iceberg for the cases of malpractice and misconduct. For example, we had a request to remove an author but many, many months later, correspondence and finding out the details, it turns out that this is the case of serious workplace harassment. And it turned out that the author had tried to commit suicide and so on. So, the tip of the iceberg was just "Please, can you remove this co-author." But, behind it is so much more. And that's why everything has to be dealt with on an individual basis.

In summary, AGU is a scientific association. We are really committed to scientific integrity and professional ethics across all our operations and that includes our publishing. We try to lead by example. We try to be early adopters of best practice and we try to encourage all of our members to uphold these standards, too. I'm not saying we are perfect and free of problems, but I think these are some of the roles that a scientific association has in this process of the publishing cycle. That's it for me.

Duncan MacRae: Thanks, Jenny. Good morning. Okay, I have limited time, so I'm just going to jump right in. In 2014 and early 2015 there were hundreds and hundreds of retractions from a number of large publishers under what we sort of collectively referred to at the time as the "peer review scam" and when we investigated these, what we found was that authors were being asked to suggest reviewers during the review process, which was somewhat standard across a number of journals, and the peer reviewers they were suggesting may have been real names but were faulty e-mail addresses, and the end result was that people were able to essentially review their own manuscript. Now, as frightening as that may sound, it is not actually our main takeaway from these incidents. The main takeaway was actually we discovered that this was not the work of individual authors but primarily it was the work of companies and businesses for whom academic misconduct was essentially their business. What authors were doing was they were being approached by companies who were saying, "We can help you get published. We can improve your manuscript." And the authors would basically hand over the manuscript to a third party and a third party would then exploit various loopholes in the system in order to gain some sort of advantage so they could back up the guarantees that they had made to the author who is essentially their customer. Fake peer reviewers was one of them.

We also had selling of authorship occurring in which one of the third parties would be able to move the

manuscript to a certain place in the peer review process and then offer authorship on that paper outside. Now as Jenny mentioned, that would be a red flag for most journals in the sense of an authorship change during the peer review process used to be extremely rare or at least the request was rare. That was fairly commonplace. One journal that I oversee, a couple of years ago had a manuscript submitted and it was reviewed and sent back for revisions and when the revised version came in, every single author name had changed on the paper. That's pretty brazen and unusual, but unfortunately in this sort of era not particularly surprising. We did reject the manuscript, just to let you know. There's also selling content on demand. These are basically marketplaces online where a doctor can go and purchase an already written manuscript, put their name on it, and then that manuscript is submitted. There's also predatory journals. I could talk about predatory journals for hours so I just wanted to mention it just so that you knew I was aware of it, but I'm not going to get too much into the weeds on that. I'm more concerned with the things that impact the peer review process from our standpoint as a publisher.

So, why did this happen? Why three or four years ago did we all of a sudden start to see these incidents of such brazen misconduct occurring? When I've given this talk in the past, I've always been very careful not to point fingers. Luckily, the *New York Times* has stepped in and pointed the finger for me. This was actually an article written about three weeks ago that appeared talking about the fraud scandals and their relationship to China's desire to be a research superpower, and I would say that anecdotally this is certainly the case for most of the journals that I oversee. We essentially have journals that are being overwhelmed with submissions from China over the past, say, four to five years. The incentives, what has happened here is that the Chinese institutions essentially incentivize publication in a very direct way that Western institutions have not. So, in the past it was "you publish or perish," but it was part of sort of a tenure-track, it was part of the overall kind of makeup of someone advancing their career. What the Chinese institutions did was say, "If you get published in 'X' journal, you'll get \$5,000." And so the financial incentive to get published was so direct that almost certainly from what we know from humanity is that it led immediately to corrupt practices. They also emphasize impact factor to a degree that we had never really seen before. I mean, obviously impact factor has been an important metric for long time to journals but we had never seen

it to the degree where submitting to a high-impact journal took precedence over submitting to the appropriate journal. So, specialty journals with relatively low impact factors essentially get ignored while a journal that may be more general but has a very high impact factor gets completely overwhelmed with submissions. And then backing all of this up is a complete lack of education in those institutions about what best practices are, what editorial protocols are, and so you put all of these things together and what we end up with is the situation that we've been combating for the last three or four years.

What are we doing about it? This is occurring at the journal level, at the publisher level, and sort of at a wider industry level. Jenny actually touched on several of these things. The biggest one is identifying the loopholes that are being exploited and then closing them. For example, I mentioned the peer review scam, reviewers being suggested by the authors, most journals that's an easy fix. They simply take away that option and that problem no longer occurs. Definitely stricter policies regarding authorship as Jenny mentioned. I can probably say in the first 15 years that I sort of ran editorial programs, I maybe had five requests total or even less for a postacceptance authorship change. We probably get about five a day now. So, this is obviously something that we have to combat by adhering to guidelines. I think one of the issues with that, and Jenny is right, you have to then investigate and ask for justification. That can take a lot of time and so all of these things that we're now having to do place an added sort of onus on the editorial offices. It's an incredible amount of labor that our offices have to do to investigate these kinds of things. There are tools now, CRediT is one to increase transparency. What exactly did the author do on the paper? Some journals now require that upfront. When the paper is submitted you have to make a declaration of exactly what each author did. It's hard to justify dropping an author if in the first version you claimed that they designed the study and also antiplagiarism software as well. I think that the antiplagiarism software on the whole acts as sort of a deterrent. Just because of its existence, I sometimes question the actual ability of them to accurately detect plagiarism, but just their existence and having an antiplagiarism policy is usually enough to at least address that issue to a certain extent.

Across publishers and the industry there are other responses as well. Increased outreach to the editorial offices of journals here that we work with, authors and institutions, especially in those

developing markets, to make them understand that there are things that cannot happen and educate them about these standard policies that we all adhere to, whether it's COPE or WAME (pronounced 'whammy'). or ICMJE. We are cooperating with industry organizations to kind of contribute to messaging. So, for example, when the peer review scam came about in 2015, the publishers all got together with COPE, to not only release a statement, but in a way to sort of exchange notes a bit. So, cooperating with other publishers to make them aware of things that might be happening to us to let them know you need to be aware of this as well. So, a greater amount of communications between publishers is also helping. Specifically to the industry of editorial services, as I mentioned, these third-party agencies which are passing themselves off, that one of the major issues is that there are legitimate companies that provide the services who clearly want to differentiate themselves from these other sort of nefarious companies. So, we at Wolters Kluwer have worked with the Coalition for Responsible Publication Resources, which is an effort to sort of accredit legitimate editorial services companies so that authors can be aware of who they're working with and who they're reaching out to so they are not caught in the slew. I will say that one of the big questions that we have is to what degree the authors are aware of the activities of some of the companies that they've worked with that are not legitimate.

And then think, check, submit. This is more about predatory publishing but it is an effort to make authors understand that there are differences between legitimate and illegitimate publications and to ask them to take a second before they submit their manuscript. Submitting to a predatory Journal is obviously not just contributing to something we would rather not see but also it is a colossal waste of time for everybody involved. You cannot undo it once it has been done. So, even if a journal is completely illegitimate, you can't withdraw the manuscript and then have it published somewhere else. You're stuck with that decision.

We have actually seen China take some action. They release this "5-Don't Policy," which was meant to address some of the major issues that they had obviously seen happening and pressure was being brought up on them. So, many of these sort of "commandments" address some of the things that I've mentioned. Probably the second one is the most important but in a way one of the most problematic, because there are legitimate third-party companies

who we work with and we want to help authors so we don't necessarily want to completely eliminate the idea that authors can seek help with their submissions, but at the same time we have to be very careful about where exactly they are submitting their papers or what help they're seeking out and from whom.

In summary, misconduct, we definitely used to think of this as the rogue author. Plagiarizing work or falsifying data or making a claim that wasn't true. That is certainly no longer the case. We understand now that we're battling organizations who have a huge financial incentive to try and perpetrate a fraud and that there is a response and that response is at almost every level from the journal all the way through to government agencies now, and so this is something that we are continuously combating. We see it every day on sort of the frontline but certainly something that we have a plan to address. I have a question slide, but clearly that is not correct. There you go.

Barbara Epstein: I thought about starting my talk by talking about what libraries do and the educational programs and the websites that we have, but then I decided that we know all that, and what I really want to do is to step back and talk about the seismic changes in publishing that are happening today and the seismic changes in ethics that we are undergoing and to look at this from the viewpoint of faculty and researchers and authors who are the people that we serve.

So, in the good old days life was much simpler and ethics were very straightforward. You wrote an article, don't plagiarize, make sure your references are correct, find a journal, submit the article, get accepted, do the revisions, the article is published and voila! You are done. But, today ethical guidelines are much murkier than they used to be. Today authors are confused. They want to know—they're trying to figure out what they want to do and then they're also trying to figure out what they have to do. So, first of all find the right journal. Open access or proprietary. Many times it is very hard to know what the line is. Does their funding agency have a mandate for open access? Well, where do they put it? What's the embargo period? How do they satisfy that mandate? What about publication fees? Are there page charges? What is Gold Open Access? What is Green Open Access? What's hybrid? Where did they get the money? Those are all questions that they have to face.

How do they avoid predatory journals? How do they even identify predatory journals, as we've seen the line between what is legit and what is not legit is often very convoluted? Do they deposit in a repository? Do they have to? Do they want to? Which repository? The repository at their university? The repository at a government agency? The repository—just one that's out there? Which one do they deposit in? What version do they deposit in? What exactly is the version that you are allowed to deposit? What exactly is the version that you're not allowed to deposit?

And then how do you decipher publisher copyright agreements? They're all written, most of them are written in legal language. There are dire consequences if you don't abide by them. Some authors are saying can they really sue me if I don't do it right? What are my rights? What are things that I can't do and what are the different options for the different kinds of copyright agreements?

And finally, increasingly, what about preprints? Many people, especially in the sciences, are depositing preprints of their article in designated archives. Well, many, as we have seen in some articles and in some reports, people are saying, "If I deposit my preprint and it's well received and people read it, do I have to bother publishing in a journal or is that good enough? Can I move forward?" And then conversely, "If I deposit my article in a preprint server, can I still publish in a reputable journal?" Because is it still something new or has it already been exposed and it's not an original article?

And then we come to data, which is another other area that has questions. Authors want to know why do I even have to share my data and what exactly do I have to share? What are the rules? Can I point to data that is on my office server? Do I have to put it in a publisher repository? Do I have to put it in a national repository? Or some other place? And my data is really complicated. Why do I have to help other people take advantage of my hard work? Am I responsible for giving them directions to use my work? What are my responsibilities? And then how can I protect information and data that is confidential or proprietary? If I share my data, can I still apply for a patent? Am I violating patient confidentiality or research subject confidentiality? These are questions that come up. Is it my problem if people can't figure out what my data shows? Do I have to be a mentor to help other people use my data? What does it mean to deposit data? And then most seriously, what if flaws in my data are exposed by depositing

data? What if other people can't replicate my results or what if they come to different conclusions when they're replicating my experiment or my research? Will I lose funding? Will my university lose funding or suffer consequences? Will the journal have to issue a retraction? Will my career be ruined? And will I be exposed as a fraud? I don't think people talk about that very much, but I think it's always often in the back of the mind of researchers.

So, what we need when we talk about ethics today, we're really talking about the need for a new scholarly communication paradigm. We are facing a clamorous competitive marketplace in the publishing industry. Publishers are coming out with new products and new platforms that are breaking down the old system. Authors may also have resentment toward publishers for being slow. They are too slow to publish my research. They may also resent publishers because they say, "I'm the author. I worked on it. I am the peer reviewers. We are the peer review communities. We worked on it and we are all doing it for free and why are they charging us a great deal of money to buy back our own research and then preventing me from reproducing my research?" Librarians may resent publishers for price increases that are unjustified and unsustainable. And the line between predatory and trustworthy publications can be increasingly blurry. In the article that Duncan talked about in the *New York Times* they mention the *Journal of Economics and Finance* and the *Journal of Finance and Economics*. One of those is predatory and one of those is reputable. It's very hard to remember which one. And also even increasingly we see the National Library of Medicine is facing problems because predatory journals are finding their way into PubMed Central because people who have had research funding from NIH may be publishing in predatory journals and then depositing their work in PubMed Central and very few people understand the difference between PubMed, which only indexes legitimate journals, and PubMed Central that accepts deposits. And we all as librarians have to admit that sometimes access or maybe even often access to

our resources can be convoluted. It can be slow, no matter how much we try, and so users want to find their own way to information. Funding agencies have varying rules. NIH, NSF, the Wellcome Trust, the Howard Hughes Trust, and other agencies all have slightly different rules on what needs to be deposited, what are acceptable embargo periods, and users and authors are confused about how to satisfy those. Both Jenny and Duncan have talked about education and we all agree that education is important. As librarians we offer workshops. We produce websites but education only reaches those who were willing to listen and seek out the information. Many authors, they just want to publish. They want to get the work out there, publish it, move on, and they want to be experts in their own discipline. They don't necessarily want to be experts in scholarly communication or ethics, fortunately or unfortunately.

Finally, users are out of the corral. They're finding information wherever they can find it. If the library is slow, if articles are behind a pay wall, they're looking for ways to find information. Some of those ways are through unscrupulous or illegal servers that I won't mention here, but we know what they are, and some of them are also—increasingly we see perfectly legal services like Open Access Button and Unpaywall that are searching repositories and it's one-stop shopping to find free legal articles that are delivered to the requester. And then in the case of Open Access Button, if they can't find a free legal copy they will send an e-mail to the author automatically to request that article. So, our users are finding ways to get information.

And, in conclusion, the scholarly communication river will continue flowing downhill. People will find what they need, authors will publish, and they will flow around the barriers in their way, whatever those barriers are perceived, and librarians and publishers can't necessarily stop it. So, together we have common interests in finding better ways to address scholarly communication and better ways to adjust to the new environment in which we find ourselves.