Open Science Talk No. 49 (2023): The Bill & Melinda Gates Foundation as promoter of Open Research : a computer-generated transcript [1]

00:00:08 Per Pippin Aspaas
Open Science Talk, the podcast about open science. My name is Per Pippin Aspaas, and today I'm joined by Ashley Farley, program officer of Knowledge and Research Services at the Bill and Melinda Gates Foundation. Welcome to the podcast, Ashley.

00:00:26 Ashley Farley
Thank you so much for having me. Great to be here.

00:00:29 PPA
So what is the Bill and Melinda Gates Foundation?

00:00:35 AF
Yeah. So we are a large philanthropic funder led by three co-chairs – it was, well, Warren has now stepped down. But Warren Buffett, Melinda Gates, and Bill Gates. And we are now up to – just announced earlier this week – over 8 billion dollars of funding. Those are very large numbers to try and conceptualize, but we work in several main divisions and a lot of different smaller program areas, ranging from global health to global development, which is more focused on agriculture, nutrition – we have family planning, and then I sit in more of the global health space, which is focused on, you know, vaccine development, malaria, HIV – we've had a major COVID response, and then we also do a lot of philanthropic support in our local regions, local areas, and then focus on education in the United States.

00:01:31 PPA
Right. So it's predominantly the applied sciences, you could say, not so much the non-empirical ones. Is that correct?

00:01:40 AF
I think that that's correct. And we do fund a lot of different groups, so we can focus on NGOs, supporting a lot of more academic institutions, but also a lot of R&D or innovative technologies in more of the private and commercial sector. So, really, there's quite a wide range of what we look to support and experiment with. But really it's meant to – whatever we're doing get us closer to our goals and mission. And for a while, Bill had you know, really a focus on getting to 0, which I think is a very fascinating idea. I think the Chan Zuckerberg Initiative has also had similar goals and messaging. You know, the foundation is not meant to exist forever in perpetuity. Really, we're trying to solve a lot of these problems – eradicate diseases, poverty, solving issues like that, and then closing up shop.

00:02:39 PPA

Sounds great! And you've been around for some years now. When did it start and where did you get on board?

00:02:47 AF

I actually started as an intern as I was completing my master's of Library Sciences at the University of Washington, so I was very lucky to be selected through their internship program, and that's when I first learned about Open Access. I actually didn't learn about it too much while going through the library program – I've worked in more of a paraprofessional position in libraries for most of my career, both public, academic, and then decided it was time to make it official. And once I started in the Foundation in 2015 as an intern, they haven't been able to kick me out yet and I've been extremely passionate about the topic of Open Access and making sure that everything that we fund is openly available for anyone to access and build upon, and then broadening that further advocacy to other institutions and organizations so that – you know, my big dream is to get to a point where we don't have to talk about Open Access, it's just how we operate.

00:03:45 PPA

Right. In Europe, we have this Plan S – of course, there has been talk about Open Access for 20 years by now or more, even – but Plan S came in 2018 and that's, sort of, really set the scene for some big political discussions, and also discussions involving – the general professor around, all across Europe, you could say, have heard about these requirements of Plan S and everything has to be Open Access. OK, how to do that? But you were early adopters overseas, and why is that?

00:04:20 AF

Yeah. I think the biggest reason is – our policy was already quite aligned with many of the principles of Plan S. So it wasn't a huge shift for us, and I would say it was a positive shift for us. When we launched our first policy in 2015, it was very focused on the Gold APC model. Like, if there's an Open Access option, we'd pay for it, if there wasn't, then – guess what, grantee: you shouldn't publish there. And that caused a lot of – not a lot, I shouldn't say a lot, but – it definitely caused some difficult discussions, especially with our grantees that are larger maybe labs or institutions or very privileged institutions – I'm talking about the Harvards, the MIT's of the world – and they are used to being able to publish in, say, the so-called high impact journals. So having that shift was hard and painful, but we really focused on, you know, why we were doing this and why Open Access was important to us and really trying to shift away from the reliance on impact factor and educate our grantees on that. And that was, you know, quite a process. But I do think, you know, we're continuing to see a shift away from that. So that was good. So when we came to, you know, Plan S and there are different options and we were one of the really early adopters of the Rights Retention Strategy, so that we formulated a way so that our grantee authors could have the opportunity to continue to publish in those journals, but we're not focusing on the Version of Record being Open Access, but sharing that Author's Accepted Manuscript in an Open Access repository with a CC BY license, and having that be the desired route. That was, I think, a really important and fundamental shift in how we view Open Access Policy implementation and what we value. So that's why I think we were early adopters there. And just – I have a deep belief in the collective action and I think that's why the Coalition S has had such an ripple effect, and the impact is we are seeing large funders in the space that – many already had strong but differing Open Access policies, so coming together trying to align those implementations and practices as much as possible – that it had a stronger impact on the funding and research community.

00:06:45 PPA

And how then do you monitor that recipients of your funding actually follow these requirements?

00:06:53 AF

Yes, definitely also a strong believer that if you're going to have a policy, the implementation and compliance checking is critical. That's what's going to actually change the behavior of researchers. Right now, we partner with a non-profit group called OA Works, and we've been working with them for the past couple of years to really build up our capabilities in being able to – not only track compliance but actually follow up more effectively on non-compliance. And when I first started working on our Open Access Policy, it was interesting to me to see that we weren't only checking the compliance of the policy for our grantee authors, but also the publishers that they're working with. So there have been times – and I think there used to be a hashtag or a Twitter handle floating around for, you know, research that was paywalled that we know should have not been paywalled, and we also have to constantly check to make sure that when we, you know, pay for Open Access or, you know, we're taking the Green Open Access route, that that's being done correctly and things aren't being attributed a wrong CC license or a paywall. So we also use the data that's collected by OA Works to follow up with publishers and make sure that we get what we've paid for and what's aligned with our policy, and then also following up with grantees on non-compliance, and that's been a really, actually, great experience with the model that we have. I definitely try to take more of an educational approach, a lot of our authors, our sub-grantees, they might not be inherently aware of our policies and how to how to achieve them without issues. So we try to approach it as a learning mechanism and: hey, you know you're not compliant with our Grant Agreement, but here's how you become compliant quite easily, and we have more of a drag-and-drop-mechanism of upload of your Author's Accepted Manuscript. Right now we use Zenodo as a backup repository for those those articles, and we're also working closely with PubMed Central, so making sure those documents are also available there.

00:09:05 PPA

Yeah, you mentioned OA Works and also Zenodo. I saw something that I believe OA Works has been part of or perhaps even developing themselves, it's called Share Your Paper service. And so, if I understood it correctly, you can – if you are an author, you don't have to be funded by the Gates Foundation, but you are an author, you have written something scientifically and you have the DOI of the article, you just type it in and and then you get to know if it's allowed to upload or not, and then it ends up in Zenodo. Is that correct?

00:09:39 AF

Yes, yes. And now there's a lot more tools to help discover openly available versions across the Internet, things like on Unpaywall. You can, you know – if people are using Google Scholar, it's easier to tell when there's a PDF associated with it. So you don't have to always go to the Version of Record on the publisher's website, which I think is really important for making more of the Green Open Access models successful. And that's the route that, you know – I think, as we see APC prices becoming just unattainable for even the most privileged institutions to be able to pay, that we're going to have to have other routes to achieve Open Access and kind of – in any way possible, but not at any cost – and that's why I like the Share Your Paper aspect a lot. I do think that they've kind of rebranded that into their overall OA Works set of tools, but that's the great thing about working with OA Works is – we're focused on the open source aspect of it. So my goal working with them is to build, kind of, these tools for, you know, specialist funder policy compliance, so that that isn't a barrier to have a policy – we really need more funders and institutions to have strong policies, monitor and follow up on non-compliance. I think to make that last push to really achieve Open

Access as the norm and having access to tools or putting in workflows or having the kind of people, resources, time and energy shouldn't be a barrier. So I'm hoping that as we develop these things to work more automated, more effectively, more easily, they'll be adopted much, much more quickly.

00:11:27 PPA

There seems to be political support, at least under the current administration. The Biden administration recently – I think it was now in January that they launched this Year of Open Science. So this hit the news. Could you tell us something about the background and the context?

00:11:49 AF

Yeah, I love declaring a Year of, I think that's fantastic. I think this really hits to a much needed, kind of, marketing and communications of open science. I've been now in this space since 2015. So it's been over seven years now and it's my – you know, I breathe this day in, day out – but I still forget that many researchers – anywhere within their career, anywhere within any disciplines – are still very new to the concepts and the tools and the practices. I think having, you know, the government endorsement and actually talking about it and declaring the Year of is really important. And they're encouraging other funders to join in and make specific changes in their policies and practices that make, I think, Open Access much more achievable. And I think this comes from some of the agencies – especially, say, NASA has really gone all in on open science and I think that makes a lot of sense, especially for their work where it isn't easy to share instruments or, you know, experiments or any of that – to really promote open science so that there is the capability for others to learn from previous research, data – reuse it, build upon it, so I think it makes a lot of sense for them and I love seeing that that they're now taking those learnings and principles and spreading them to other agencies and then encouraging other funders and groups and institutions to join as well, which I think is is really important, and I hope it raises the awareness. I mean, we still – I think, at the foundation struggle a bit with the concepts of open. It can seem, kind of, scary to I think many researchers, especially when we're working in delicate areas like family planning or maternal child nutrition, where there are a lot of sensitivities in data sharing when we work with a lot of governments that aren't so able or willing, or very cautious, to share data more broadly. And so you have to really be, I think, careful around how you use the phrase open, but I hope that this helps us, kind of, overcome some of those fears. And we learn that it doesn't mean, you know, we are just posting all of this stuff on, like, Reddit for comments or, you know, 4Chan – that we're taking good care of that data, but making sure it's having the biggest impact possible. And to me the Open Science Principles are really, I think, about conducting research from start to finish. I think even the grant making process could be much more open and transparent to better the research itself. And having that research process from start to finish just be more open, transparent, equitable and available for anyone to participate.

00:14:51 PPA

Yeah, there is a discussion, isn't there about what the openness can bring of good things, but also the downsides. Maybe, for instance, in peer reviewing that people are concerned that you would actually have problems, perhaps, with prejudices – people just seeing the paper: oh, this is written by someone whose name looks like this, then it's probably not a serious paper – and they will be, sort of, prejudiced as a peer reviewer based on that. So you have this kind of issues not just in sensitive data, do you? You also have them on on publishing process, for instance, but you mentioned also now the funding and the application process. Have you had some experience with a more open application process?

00:15:41 AF

I haven't had much experience with it. I do know that there are, I think, a couple other, at least funders or groups that are trying to experiment with it, or I think there's a database where you, as someone who has, say, submitted a proposal, can upload it and then it'll be available for anyone searching on that topic, which I think is great. And I think, actually seeing it, kind of, led by the grant writers themselves is powerful. I just think it's an opportunity – I mean one, you know, I do worry about the increasing – just capacity of researchers trying to seek funding, the number of applicants. It just can be a bit overwhelming. And I think there's a much more effective way to have people produce their ideas, then produce the proposals, and then be able to assess and follow up on the work and the layer of transparency, I think, is just important. We don't typically at the foundation do RFPs. So it is, kind of, a process that's done in coordination with program officers from the beginning, but we see a lot of really interesting or robust conversations and ideas that – if they aren't approved or go forward, they kind of get lost in the ether. And I think that's a disservice to the community. But I will say I'm a huge proponent of open peer review. So I would like to see, I think, more of that become a norm and the kind of prejudices that you speak of – that person's going to carry them whether they kind of recognize the article in the name or not. And I worry that having this kind of closed system just protects those bullies, so to speak, in a way, and I would like to see more openness and accountability and focusing on the civility of discussing the research and the topic at hand and making that better than focusing on, you know – peer review right now I think is very centered on whether or not if it's the brand or scope of a journal, and that's a bit of a disservice to the research itself.

00:17:51 PPA

Yeah, this is something that's debated and I think we could have a a separate podcast just on aspects of open peer review and how to organize things the best way possible. But let's move on to the other aspects, then, of open science, if I may bring up the UNESCO Declaration, for instance?

00:18:14 AF

Yeah.

00:18:15 PPA

This has a very broad emphasis on citizen science, on open data as we already mentioned, but also this bringing together the broader population and the academics. Do you have any thoughts?

00:18:31 AF

Yeah, I think it's another – you know, kind of building from the idea of the Year of Science and all of the different policies and principles and institutions are producing as it helps raise that awareness and really, I think, encourages groups to act and to pick up and start to do something somewhere. And I think that's also a bit of the beauty of open science – it doesn't have to be done a specific way. There could be parts of your research that you're very open with and sharing, other parts that you aren't. You can go fully all in and, you know, from start to finish, or you can just make sure that you archive a copy of your paper. So I think, again, that that helps bring the awareness. I am curious to see, you know, how we measure the impact of, you know, such principles or statements when things are kind of opt in or more of a guidance and principles. I do worry that that's not strong enough to affect behavior change. Of course it is, you know – it is a bit difficult to enforce policies and that's why we're trying to build tools and templates to make things as easy as possible for organizations that don't have the capacity to really have strong implementation or compliance checking. But I do think that what really changes behavior is when something is a requirement and is followed up on.

00:20:03 PPA

Yeah, just to stop you there, sorry. You mentioned building services and infrastructures. You have also the your own research platform, the Gates Open Research Platform, I noticed. What is that for, and and how does it work?

00:20:18 AF

Yeah, that – to talk about open peer review, it's one of my favorite projects to work on and I think the reason we launched it in 2016 was – one, to give our grantees a great compliant option for complying with our policy. It's a fully open post publication, peer reviewed model. I think it's also a way for us as a foundation to put our name and our funding behind a model that I think truly encompasses where we should head in the future, which is, you know, shifting towards or building up a whole new, you know – publish, review and curate – especially when we look at, kind of, the state of preprints. So it's a platform to me and a technology and a system that gets rid of, kind of, what I see as the scourges upon traditional publishing, which is that journal scope. So, you know, we give our grantees the power to publish whatever they want on there. The idea being, we've already vetted them for our funding, that we trust their results. It goes through open peer review, it does need to meet a certain standard before it's indexed in, say, PubMed or other indexers. So there are articles on there that haven't passed that hurdle that will, kind of, live and die on that platform, but I think it's great because that's all transparent to the reader. It doesn't end up getting published somewhere where it's kind of questionable if did it get through a robust review process? Did it not? You know, I think it gives more power to the readers. It has full versioning control, which I still can't believe other publishers have not adopted. So if you need to make a correction, if you need to do, you know, any kind of change – new version, correct data, add data – you can do all of that. It's very explicit why there's a new version, what was changed, and I think that that better captures how research is done and how it's an evolving discussion, which we also can say is very important for the general public to know – to quell, you know, misinformation or distrust of science because it is a process, we're not going to get it right the first time. And I think the traditional publishing system is just so, you know, one done published, put that on my CV – it's doing a disservice to the broader way that research is done. So that's why I'm happy that we have really adopted that model and promote it. It's also been a great way for grantees that we have, say, in the Global South – especially earlier career researchers that struggled to get their research published in more Westernized journals. We've been able to provide them with a place to publish and, kind of, build up their expertise and credibility instead of saying, maybe, going towards more of the predatory publishers, which – I do not like that term and we could talk, have a whole podcast about that too – but I think, you know, if we're using that in a very general sense, it does give them a bit of a stronger platform on which to, to publish on. So it's a model and service that I really appreciate. They're very willing to experiment with us. We're trying to have more supports for editing, say, researchers – if English isn't their first language, we can provide services to help support that, and then I could also talk in length about the data sharing components. So when we talk about open science – like, if you can't share your data in a robust and FAIR way on the platform, that's the only time that we would, say, reject an article. So they do an excellent job of actually helping our grantees share data in repositories, link back to the article and make sure that, you know, the methods and protocols are robust, which is really important. So they actually have the – we do have an underlying data clause of our policy. Vompliance is pretty low because it's just – it's so hard to correct that after publication or at publication. If journals don't require and help authors share their data in a meaningful way, and Gates Open Research does – and so we have very high compliance there.

00:24:30 PPA

Yeah. So this applies then to the grantees, as you said. The Gates Open Research platform, which – from what I hear, sounds like a combination of a data archive and a preprint server, and a mega journal. Do you – are those concepts all together in one? Or am I mistaken there?

00:24:50 AF

The only thing I would say is that they don't actually store the data – they would link out to it, so they would work with, say, the DRYADS, the Figshares, Zenodos – any of the data repositories out there. They would encourage deposit there and then link to it. So they don't store the data, but I agree on the rest of it, spot on.

00:25:06 PPA

Right. Any other thoughts now towards the very end of the podcast episode?

00:25:14 AF

Yeah, I just – I think, one thing I would love to also talk about and what we've been focused on with our our new policy – or well, Plan S, sorry – in 2021, was a real focus on Rights Retention and I think that's a new concept for many authors. It's been quite a meaty topic to discuss with our grantees and to help enact in our publishing because I think, you know, the traditional system has just become so automatic and it's already quite arduous to publish a paper – like, trying to get a paper through a publishing system is, I think it's a miracle. So many articles are published per year, I would give up many a time before trying to get it through all these systems and peer review. But the rights aspect of it, I think, is so important. I think publishers, especially the large commercial publishers – I know I often overgeneralize publishers, when I talk about them – but really talking, kind of, about the big commercial ones, I think really have benefited from researchers wanting to get through the system to be able to have the final product, the published article and be able to share that out – that along the way they don't see, kind of, what they're giving up to get that. And so we're talking a lot more about retaining rights, making sure we're not signing, you know, full rights away to your work and understanding the implications of that. And it often catches our grantees off guard when they want to go publish again and use a figure from a previous paper or a data set, and then realize that they have to ask for it, or pay for it, from the previous publisher. And so just trying to really galvanize researchers around this topic, get them excited to understand that they should have, you know, more power in this process and keep the rights to their work and be emboldened by that. So that would be my parting thought.

00:27:20 PPA

Thank you so much, Ashley Farley, for coming to the podcast.

00:27:25 AF

Thank you.

00:27:29 PPA

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