Academic Publishing Is a Total Mess. Here Are 6 Ways to Fix It.

The world of scholarly communication is broken. Giant, corporate publishers with racketeering business practices and profit margins that exceed Apple's treat life-saving research as a private commodity to be sold at exorbitant profits. Only around [25 per cent](#) of the global corpus of research knowledge is 'open access', or accessible to the public for free and without subscription, which is a real impediment to resolving major problems, such as the United Nations' Sustainable Development Goals.

Recently, Springer Nature, one of the largest academic publishers in the world, had to withdraw its European stock market floatation due to a lack of interest. This announcement came just days after Couperin, a French consortium, cancelled its subscriptions to Springer Nature journals, after Swedish and German universities cancelled their Elsevier subscriptions to no ill effect, besides replenished library budgets. At the same time, Elsevier has sued Sci-Hub, a website that provides free, easy access to 67 million research articles. All evidence of a broken system.

The European Commission is currently letting publishers bid for the development of an EU-wide open-access scholarly publishing platform. But is the idea for this platform too short-sighted? What the Commission is doing is essentially finding new ways of channelling public funds into private hands. At the same time, due to the scale of the operation, it prevents more innovative services from getting a foothold into the publishing world. This is happening at the same time as these mega-publishers are moving into controlling the entire research workflow – from ideation to evaluation. Researchers

will become the provider, the product, and the consumer.

A global community to coordinate and regain control — to develop a public open-access infrastructure — of research and scholarly communication for the public good is long overdue. The issues of governance and ownership of public research have never been clearer. Another isolated platform will simply replicate the problems of the current journal-based system, including the 'publish or perish' mentality that perverts the research process, and the anachronistic evaluation system based on corporate brands.

Researchers are still forced to write 'papers' for these journals, a communication format designed in the 17th century. Now, in a world where the power of web-based social networks is revolutionising almost every other industry, researchers need to take back control.

The European Commission has called for full, immediate open access to all scientific publications by 2020 — something often mocked for being unrealistic, and that current growth trends suggest we will fail to achieve. But it is unrealistic only if one focuses on the narrow view of the current system.

If we diversify our thinking away from the superficial field of journals and articles, and instead focus on the power of networked technologies, we can see all sorts of innovative models for scholarly communication. One ideal, based on existing services, would be something much more granular and continuous, with communication and peer review as layered, collaborative processes: envisage a hosting service such as GitHub combined with Wikipedia combined with a Q&A site such as Stack Exchange. Imagine using version control to track the process of research in real time. Peer review becomes a community-governed process, where the quality of engagement becomes the hallmark of individual reputations. Governance structures can be mediated through community elections. Critically, all research outputs can be published and credited

— videos, code, visualisations, text, data, things we haven't even thought of yet. Best of all, a system of fully open communication and collaboration, with not an 'impact factor' (a paper's average number of citations, used to rate journals) in sight.

Such a system of scholarly communication requires the harmonising of three key elements: quality control and moderation, certification and reputation, and incentives for engagement. For example, it would be easy to have a quality-control process in which instead of the closed and secretive process of peer review, self-organised and unrestricted communities collaborate together for research to attain verification and validation. The recklessly used impact factor can be replaced by a reward system that altruistically recognises the quality of engagement, as defined by how content is digested by a community, which itself can be used to unlock new abilities within such a system. The beauty is that the incentive for researchers switches from publishing in journal X to engaging in a manner that is of most value to their community. By coupling such activities with academic records and profiles, research assessment bodies can begin to recognise the immense value this has over current methods of evaluation, including its simplicity.

How will we fund scholarly publishing? Well, it's a $25 billion a year industry: I'm sure libraries can spare a dime. Making a more just system of scholarly communication open-source means that any community can copy it, and customise it suit the community's own needs, driving down costs immensely. Furthermore, initiatives such as the Global Sustainability Coalition for Open Science Services (SCOSS) or a recent [proposal](#) for libraries to set aside just 2.5 per cent of their budget to support such innovative systems, offer paths forward. The possibility is real for creating something so superior to the present system that people will wonder how publishers ever got away with it for so long.

All of the technology and traits to build a hybridised scholarly commons infrastructure already exists. It is up to academic communities themselves to step away from their apathy and towards a fairer and more democratic system for sharing our knowledge and work. That is, after all, what research is all about. The question of publishing reform is not theoretically or conceptually complex. The future of scholarly communication depends more on overcoming social tensions and the training to defer to a powerful system embedded in global research cultures than on breaking down technological barriers.

Members of the academic community ought to hold themselves accountable for the future of scholarly communication. There are simple steps that we all can take: many have already done so:

1. Sign, and commit to, the Declaration on Research Assessment, and demand fairer evaluation criteria independent of journal brands. This will reduce dependencies on commercial journals and their negative impact on research.
2. Demand openness. Even in research fields such as global health, 60 per cent of researchers do not archive their research so it is publicly available, even when it is completely free and within journal policies to do so. We should demand accountability for openness to liberate this life-saving knowledge.
3. Know your rights. Researchers can use the Scholarly Publishing and Academic Rights Coalition (SPARC) Author Addendum to retain rights to their research, instead of blindly giving it away to publishers. Regain control.
4. Support libraries. Current library subscription contracts are protected from public view by 'non-disclosure clauses' that act to prevent any price transparency in a profoundly anti-competitive practice that creates market dysfunction. We should support

libraries in renegotiating such contracts, and in some cases even provide support in cancelling them, so that they can reinvest funds in more sustainable publishing ventures.

5. Help to build something better. On average, academics currently spend around $5,000 for each published article — to get a PDF and some extra sides. A range of different studies and working examples exist that show the true cost of publishing an article can be as low as $100 using cost-efficient funding schemes, community buy-in, and technologies that go a step further than PDF generation. We can do better.

6. Use your imagination. What would you want the scholarly communication system to look like? What are all the wonderful features you would include? What can you do to help turn a vision into reality?

It is feasible to achieve 100 per cent open access in the future while saving around 99 per cent of the global spending budget on publishing. Funds could be better spent instead on research, grants for under-privileged students and minority researchers, improving global research infrastructure, training, support and education. We can create a networked system, governed by researchers themselves, designed for effective, rapid, low-cost communication and research collaboration.

Scholarly publishers are not just going to sit back and let this happen, so it is up to research funders, institutes and researchers themselves to act to make a system that represents defensible democratic values, rather than rapacity.

—

This article was originally published at [Aeon](#) and has been republished under Creative Commons.

Dear Readers,

Image Credit:
Wall Boat/Flickr