

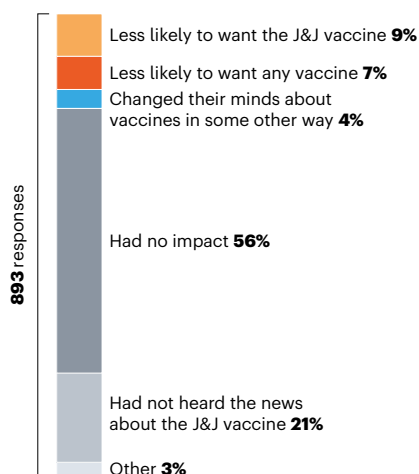
Hygiene & Tropical Medicine who specializes in risk and decision science. Even if authorities say the likelihood of a severe reaction is one in a million, she says, what people want an answer to is, “What does that one in a million mean for me or someone in my family?”

Providing that context can be tricky because risk perception is highly subjective, says Alexandra Freeman, executive director of the Winton Centre for Risk and Evidence Communication at the University of Cambridge, UK. There are two elements of risk that people need to understand to make decisions, she says: the likelihood of something happening, and the impact of something happening. For example, the likelihood of severe, influenza-like symptoms after a vaccine injection might be one in ten, but if they happen, those symptoms could have a larger impact for a single parent without childcare support than for someone able to take time to recover.

Public-health specialists told *Nature* that the key to increasing public trust continues to be transparency. In a study of how communication about vaccine efficacy affected people’s decisions to get a COVID-19 shot, Freeman and her colleagues found that being transparent about the uncertainties made no difference to whether or not a person got a vaccine (J. Kerr

NEW HESITANCY

After US inoculations with the Johnson & Johnson (J&J) shot were paused owing to worries over blood clots, unvaccinated Americans’ hesitancy to get a COVID-19 jab increased, according to a survey.



et al. Vaccines 9, 379; 2021). But, says Freeman, “we did find that people felt that they were more informed and felt more confident in their decision-making when they were given more informative communication”.

Additional reporting by Heidi Ledford.

the same portfolio of seven life-sciences journals covering biology, medicine, computational biology, genetics and pathogens. Some of its more selective journals, such as *PLoS Medicine* and *PLoS Biology*, have run at a loss, but the publisher generated more income by launching the mega-journal *PLoS ONE*, which accepts scientifically valid research from all disciplines.

The five new journals focus on water, climate, sustainability, global public health and digital health. Introducing non-life-sciences titles will allow PLOS to diversify, says Clarke. “This is significant in thinking about the possible future directions of the organization.” In the years since *PLoS ONE* was launched, he adds, other publishers have mimicked the mega-journal concept and eroded PLOS’s market share. The publisher’s financial history is chequered. It first broke even in 2010; in recent years it has fallen into deficit, with 2019 the first year that it made an operating surplus since 2015.

Spreading the cost

The journal launches come as PLOS continues to pilot a business model that it introduced last year. Under the scheme, known as Community Action Publishing, universities sign an agreement that gives their researchers unlimited publishing in *PLoS Medicine* or *PLoS Biology* for a fixed fee.

The membership fee for individual institutions varies from around US\$350 to almost \$40,000 for the three-year pilot scheme. The cost is based on the publishing history of an institution’s researchers over the past six years, and takes into account whether scientists were corresponding or contributing authors. Profits are capped at 10%, with any revenue exceeding this being given back to members. Researchers publishing in these titles from institutions without an agreement will pay a non-member publishing fee – similar to an article-processing charge – that will increase year on year.

The idea behind the new model is that the cost of publishing a paper is spread more equally across all of the authors’ institutions, rather than the corresponding author’s institution or funder footing the bill, as is standard with an article-processing charge. PLOS says that as more members join the scheme, it will become cheaper for researchers to publish papers. So far, more than 75 institutions in 8 countries have signed up.

PLOS’s chief publishing officer, Niamh O’Connor, says that PLOS hopes to circumvent the idea that open access moves the cost of publishing a paper from the reader to the author. “While the article-processing model has allowed open access to develop, we don’t see that as the future,” she says. “We are working to a future where those barriers are removed.”

OPEN-ACCESS PUBLISHER PUSHES TO EXTEND CLOUT BEYOND BIOMEDICINE

PLOS will launch five journals and a business model that aims to spread the cost of publishing more fairly.

By Holly Else

Non-profit life-sciences publisher PLOS is gunning for a bigger share of science beyond the biomedical realm, with the launch of five journals in fields where open science is less widely adopted. They will be its first new titles in 14 years. It is also piloting a new open-access business model, in a bid to spread the cost of publishing more equally among researchers.

The new business model is the first shake-up at the publisher for a while, and has been eagerly anticipated. “PLOS is a publisher that punches above its weight,” says Michael Clarke, managing partner at publishing consultancy Clarke & Eposito in Washington DC. “Since their inception, they have had an outsized influence on the industry. After a period of quiescence, it is good to see some long-overdue innovation,” he adds.

In the 20 years since its inception, PLOS has blazed a trail that many mainstream journals have followed, making papers free to read and drawing revenue from publishing charges rather than subscriptions. But some warn that other publishers might be less likely to adopt the new model – which requires institutions to sign up to long-term publishing agreements – owing to its complexity.

Open-access pioneer

PLOS started life in 2001 as the Public Library of Science, in response to an open letter signed by almost 34,000 scientists calling for an online repository of life-sciences papers. In 2003, it launched its first journal, *PLoS Biology*, which was funded using an unconventional business model – asking authors to pay an article-processing charge to make their papers freely available for anyone to read.

Over the past 14 years, PLOS has maintained

News in focus

Clarke says that Community Action Publishing is a “shrewd scheme”. Instead of collecting revenue from one-off transactions to publish individual papers, the partnership model locks institutions into longer-term financial agreements that give PLOS a predictable income across several years, which could put its journals in profit. “While 10% may be a modest profit margin, if the journals are operating at a loss now, the 10% target represents a substantial margin swing,” he says.

Acceptable profits

As science grapples with how publishing will look in the future, there has been much debate about acceptable profit margins for publishers.

Lisa Hinchliffe, a librarian at the University of Illinois at Urbana–Champaign, which is a member of the Community Action Partnership, says that if lots of institutions sign up to the PLOS scheme, it could indicate that a 10% profit margin is considered acceptable. She also cautions that, because the scheme takes into account all authors on a paper, it will be complicated to manage. “I believe that this

complexity makes uptake by other publishers less likely,” she says.

O’Connor and her team are already thinking about how they can improve access to research without reinforcing existing hierarchies that exclude researchers in low- and middle-income countries. On 12 May, PLOS announced a partnership with a centre that

“After a period of quiescence, it is good to see some long-overdue innovation.”

teaches communication skills to scientists, which is based at the University of Nairobi. The link is designed to ensure that the interests and values of African researchers are represented in the publisher’s policies and services.

“Our next phase of work is not just about being able to read or share an article: it’s about building a framework for equitable participation and distribution of knowledge,” O’Connor says.

that applicants who shared both a home and a host organization with one panellist or more received a grant 40% more often than average. These were mainly cases in which an applicant planned to use the grant at the institution they applied from. The effect seemed to be discipline-specific: the success rate for connected applicants was approximately 80% higher than average in the life sciences and 40% higher in the social sciences and humanities, but there seemed to be no discernible effect in physics and engineering. It was also limited to certain countries, including Finland, Sweden, Italy, Germany and the United Kingdom, and benefited men more often than women.

The presence of a nearby-panellist effect might not be evidence of favouritism, says Van den Besselaar, because the best applicants tend to be concentrated at certain institutions. To test this, the researchers evaluated whether applicants with an institutional connection to a panellist scored better on measures such as previous grants, citations and number of publications. Their analysis showed that successful and connected applicants scored worse on these performance indicators than did funded applicants without such links, and even some unsuccessful applicants. “This nearby-panellist effect cannot be explained away by pointing at the performance of the applicants,” says Van den Besselaar.

By contrast, the connected applicants did seem to publish more often in high-impact journals and had more collaborations with researchers from high-ranking institutions. However, the authors classified these two measures as markers of reputation rather than performance.

According to ERC policy, if a panellist works in the same organization as an applicant, the ERC bars them – with some exceptions – from reviewing the proposal and requires them to leave meetings during which it is discussed. Van den Besselaar and Mom did not directly observe panels to monitor compliance with this rule.

In an e-mailed statement, the ERC said that it is unable to comment on the study, because it has not yet been peer reviewed.

Differences by discipline

One limitation of the authors’ method, Abramo notes, is that they lumped applicants from broad disciplines together, even though factors such as number of publications can vary drastically depending on subfield. For example, he says, blood-disease specialists publish much more frequently than vascular surgeons, so if you measure performance in these groups by the same factors, “you introduce an enormous bias”.

Another shortcoming, according to Natalia Zinovyeva, an economist at the University of Warwick, UK, relates to how Van den Besselaar and Mom interpreted some of their performance measures. In some fields, journal

PRESTIGIOUS EUROPEAN GRANTS MIGHT BE BIASED

Panellist affiliations seem to skew European Research Council decisions – especially in the life sciences.

By Diana Kwon

Funding panels are more likely to give European Union early-career grants to applicants connected to the institutions of some of the panellists, a study of the 2014 funding round suggests.

The effect seems to be limited to the life sciences, social sciences and humanities, and the results have not yet been peer reviewed. But given the high profile of the grants administered by European Research Council (ERC), “the findings should be taken seriously”, says study co-author Peter van den Besselaar, a social scientist at the Free University of Amsterdam.

Although previous studies have found evidence of favouritism in funding in various European countries, “I was surprised that the phenomenon has been recorded at a level as high as the ERC grants”, says Giovanni Abramo, the technology research director at the National Research Council (CNR) of Italy in Rome.

The preprint was posted on 9 March on the

academic networking platform ResearchGate (C. S. Mom and P. van den Besselaar Preprint at <https://www.researchgate.net/publication/344461606>; 2021).

ERC ‘starting grants’ are among the most prestigious early-career funding schemes in academia, providing up to €1.5 million (US\$1.8 million) over five years. Van den Besselaar and Charlie Mom, a research consultant based in Amsterdam, conducted the latest study as part of a broader ERC-funded project to assess bias in funding allocations. It focused on the 2014 cycle, during which there were 3,207 applicants, of whom 375 received starting grants.

Close to home

The authors examined what they called the ‘nearby panellist effect’ – the influence of a panellist from an applicant’s ‘home organization’, the university or research institution where they are currently based, or the ‘host organization’ where they plan to carry out the research.

Van den Besselaar and Mom discovered