Equity in Open Science

NASEM Presentation

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Who we are

ALLEA is the European Federation of Academies of Sciences and Humanities representing more than 50 academies in over 40 countries (Europe >> European Union).

A key partner in the EU's science advice mechanism, SAM + SAPEA

Originator of the European Code of Conduct for Research Integrity

Strong focus on policy for science issues; open science, integrity, IPR etc.

A legal entity incorporated under Dutch law with headquarters in Berlin and representation in Brussels.

I am one of the two vice-presidents of ALLEA and chair its Open Science Task Force

Aligning incentives

From ALLEA's Initial response to Plan-S, December 2018

ALLEA emphasises that, as recognised by Plan S, the move to full open access must be accompanied by concurrent reforms of the systems for research evaluation and career progression; it will thus require a fundamental re-evaluation of the responsibilities of all the different actors in the research system. Particular attention must be paid to the impact on early stage researchers, those from disadvantaged institutions and communities, and those working in specialist disciplines.

Unintended consequences

October 2021 - ALLEA statement on Equity in Open Access

The statement "Equity in Open Access" addresses how "gold" open access publishing routes and large read-and-write deals contribute to establishing inequitable structures within academic research. The statement builds on the 2021 theme of the International Open Access Week, 'It matters how we open knowledge: building structural equity', which was in turn inspired by one of the four core values of Open Science, as defined in the recently released UNESCO Recommendation on Open Science.

1. “[These deals] effectively incentivise such researchers to publish in the journals covered by the deal, which are often expensive journals that trade on their high ‘impact factor’ – a metric noted as problematic by Open Science initiatives.”
2. “This tacit incentivisation risks further increasing the market dominance of the big commercial publishers and clearly disadvantages smaller specialist and learned society publishers.”
3. “It takes no account of the fact that, at least in the humanities, there are still a significant number of researchers not affiliated with institutions covered by the deals, nor in some cases with any institution.”
4. “It privileges established over early career researchers. It ignores the needs of researchers based in the Global South, in smaller institutions, or in industry. It favours well-funded areas of research over equally important, but less well-resourced areas.”

This is why we need to align incentives properly!

“Big Deals” do incentivise open access publishing, but at the expense of reinforcing inequitable structures of power and privilege - they just move the paywalls around instead of lowering them.

Open science should be inclusive and open to active participation by researchers from a wide range of backgrounds - not just open access to the work of others, but the right to contribute oneself.

Science and society benefit the more open and inclusive the research process is - openness promotes efficiency and integrity, and a diversity of perspectives is always valuable.

Conversely, if science is seen as something only done by an elite working in well-endowed institutions, we risk alienating the public and creating a fertile ground for conspiracy theories.

What can we do?

Use our moral authority to promote open research as the right thing to do - just good science done better. Ideas and norms have power! Cite recent UNESCO and ISC resolutions to this effect.

Invest adequate human and financial capital in institutional and community repositories and other open science infrastructures - these are to modern scholarship what a great library was in the past.

Make DORA principles explicit in hiring, funding and promotion criteria - ask for evidence of open science outputs etc.

Promote community governance and be very wary of commercial capture of the research process (the big commercial “publishers” are now data and analysis brokers seeking to monetise all aspects of the research system).

Beware unintended consequences and think through the impact of incentives on all aspects of open research!

Some concluding remarks

Don’t forget the humanities - the digital humanities are in some ways ahead of the natural science in that although their data sets are generally much smaller, they are far more heterogeneous with complicated ownership and access rights. They know more about meta-data that we do.

Think globally and act locally - science should be understood as a global common good of humanity and we much not create structures in Europe and North America without thinking about the impact on the rest of the world.

Discovery tools are important - we need more platform-agnostic discovery agents on the model of the NASA Astrophysics Data System which put journals and repositories on an equal footing.

Rethink peer review - how can we enable a more nuanced and granular evaluation without overwhelming the system.