Exploring the Impact of Preprints in Neuroscience: Insights from Lucia Melloni

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Abstract

Implementing FAIR Workflows: A Proof of Concept Study in the Field of Consciousness is a 3-year project funded by the Templeton World Charity Foundation. In this project, DataCite works with a number of partners on providing an exemplar workflow that researchers can use to implement FAIR practices throughout their research lifecycle.

Keywords

Information Systems (Subfield), Academic Publishing and Open Access (Topic), Information Systems and Management (Subfield), FAIR, FAIR Workflows, Projects

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Implementing FAIR Workflows: A Proof of Concept Study in the Field of Consciousness is a 3-year project funded by the Templeton World Charity Foundation. In this project, DataCite works with a number of partners on providing an exemplar workflow that researchers can use to implement FAIR practices throughout their research lifecycle. In this blog series, the different project participants share perspectives on FAIR practices and recommendations.

Image

As preparation to the submission of the first preprint from the research study in the FAIR Workflows project, I spoke with Professor Lucia Melloni, the co-director of the project and principal investigator at the MPIEA, to discuss the influence and evolution of preprints in neuroscience research. Our conversation provided an in-depth look at her experiences and views on this shift in scientific dissemination.

Image

Xiaoli Chen:
Let's start with your thoughts on the evolution of preprints. How have they reshaped the landscape of research communication, especially in academic settings like conferences?

Image

Lucia Melloni:
I'm glad to be here discussing this. The rise of preprints has been nothing short of a revolution in our field. In the beginning, there was a lot of uncertainty, particularly about how preprints would fit alongside traditional journal publications. This changed as publishers began to accept and even encourage them. At conferences, the change is palpable. Now, it’s common to see QR codes on posters, linking to preprints. It's a clear indicator of how preprints have accelerated the sharing of research findings.

Image

Xiaoli Chen:
With a variety of preprint servers available, what guides your choice of platform? And in the context of these choices, how do you approach the issue of quality control?

Image

Lucia Melloni:
Choosing the right preprint server is crucial and often depends on the nature of the research. Each server, like BioRxiv or PsyArXiv, has a unique focus. The key is to match your research with the server that best aligns with its scope. As for quality control, it's a significant concern. The standards vary across different servers, and this lack of uniformity can lead to challenges, as seen during the COVID-19 pandemic. We strive to balance the need for open access with the necessity of maintaining high research quality. It's about being responsible and ensuring that the work we share is robust and reliable.

Image

Xiaoli Chen:
Peer review plays a central role in traditional publishing. How do you see it fitting into the preprint model? And how does this influence the practices in your lab?

Image

Lucia Melloni:
The integration of peer review in preprints is an area that's evolving. Platforms like eLife are experimenting with open peer review, which I find quite compelling. It makes the process more transparent and inclusive. In my lab, while I encourage exploring preprints, the final decision rests with the individual researchers. It's important for them to feel confident in their work and its readiness for public scrutiny. We emphasize an internal review process to ensure the research is as robust as possible before considering a preprint submission.

Image

Xiaoli Chen:
Looking into the future, what are your thoughts on the direction preprints are heading in scientific research?

Image

Lucia Melloni:
Preprints have the potential to continue reshaping the landscape of scientific research. Their future will largely depend on how we, as a research community, handle them. It's about maintaining integrity, submitting quality work, and being active in the peer review process. If we can uphold these standards, preprints will undoubtedly remain a vital part of scientific dialogue and discovery.

In the project, the research team will exploit the integration of OSF and PsyArXiv, a preprint platform based on the OSF infrastructure, to easily share their first preprint, which will be assigned a DOI, and associated with the various pre-registered experiments through the DOI metadata. Stay tuned and see how the openly shared and linked outputs become easily discoverable and accessible on the project dashboard in the coming year!

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