Dina Bacalexi, 13 november 2022

Open science policy session

Numerous policy texts provide guidance for Open science in the European, the international, and the national level.

In the international level, the most important is the UNESCO recommendation on Open science (cf. the website of our workshop), whose implementation is to be carried out with the active participation of the scientific community.

In the European level, "Open science is a policy priority". Its objectives: FAIR data; the European Open Science Cloud (EOSC); alternative metrics; rewards for researchers' commitment to Open science; integrity and reproducibility; education and skills; and the so called "citizen science", which is also a cornerstone of the UNESCO approach to Open science. The European Open science policy includes funding via Horizon2020 and Horizon Europe.

The Universidad Complutense de Madrid (UCM) launched its Open access policy in 2014. Its institutional repository contains publications, data, PhDs, and master final/degree projects; self-archiving of papers is mandatory within 12 months following publication, unless the editor imposes an embargo; self-archiving of teaching or unpublished material is encouraged. The personnel of the University library provide advice and support to the scientific community.

Some kind of hesitancy towards Open science still remains. The discrepancy between the official discourse including the one by powerful international entities such as the G7 and G20, and the actual policies fuels this mistrust. A challenging question is how to avoid that the mercantile sector has a grip on publicly funded science open by default, while the one conducted in the private sector is protected by the "business secrecy/confidentiality".

Accountability of research managers, politicians, European and international institutions, is indispensable: scientists need support in order to fully endorse Open science. This support includes; sustainable public funding; up-skilling and reskilling of the scientific and technical personnel whose status is to be preserved; hiring in permanent positions and reducing precariousness; increasing salaries, and taking care of the young generations (early career and post-doctoral researchers, and PhD candidates).

Open science can be a powerful driver for peace through fair and equitable North-South collaboration. Scholars from the Global South should not be limited to "consumers": they are actual "producers" of science. Their initiatives, such as African repositories and networks, the upcoming first Open science forum of the Arabic-speaking world, Open science pioneer projects by Birzeit University in Palestine, highlight their dynamism.

"Citizen science" which goes beyond amateur participation and includes co-decision remains a challenge, although in some cases it may be beneficial (e.g. "expert patients"). We need a clear definition of the "civil society", as well as strong support by the political authorities in order to provide high-level scientific literacy for all. Education to scientific reasoning, methods and practices as well as quality scientific journalism has a crucial role to play.

The implementation of Open science depends on the balance of power. Empowerment of scientists, above all of the younger ones, and citizens in this process is the only way for science, society and democracy to thrive.

Links and bibliography

The UNESCO Open science website:

https://www.unesco.org/en/natural-sciences/open-science?hub=686

The European Open science policy:

https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science_en

The EOSC portal:

https://eosc-portal.eu

The San Francisco Declaration on Research Assessment (DORA) is in compliance with Open science principles, fostering quality instead of quantitative metrics:

https://sfdora.org/read/

Plan S, whose aim is to "make full and immediate Open access a reality":

https://www.coalition-s.org/

The report entitled "The Spanish Universities commitment to Open science":

https://www.crue.org/wp-content/uploads/2020/02/2019.02.20-Compromisos-CRUE_OPENSCIENCE-VF.pdf

The UCM Open science portal:

https://biblioteca.ucm.es/cienciaabierta

A report on Elsevier by Jonathan Tennant, an independent scholar who founded the Open science MOOC (he unfortunately died of COVID):

https://issuu.com/educationinternational/docs/2018_eiresearch_elsevier_final_en

Iryna Kuchma, (2018), "Open Access Initiatives and Networking in the Global South", in *Open Divide? Critical Studies on Open Access*, Litwin Books. https://doi.org/10.5281/zenodo.117657

Chiara Franzoni and Henry Sauerman, "Crowd science: the organization of scientific research in open collaborative projects", *Research Policy* 43 (2014), 1-20:

https://www.sciencedirect.com/science/article/pii/S0048733313001212?via=ihub

Harrison W. Inefuku, "Globalization, Open Access, and the democratization of knowledge", in *Educause Review*, published July 3, 2017:

https://www.sciencedirect.com/science/article/pii/S0048733313001212?via=ihub