EDITORIAL. A SPECIAL ISSUE OF SCIRES-IT ON THE "OPEN SCIENCE: NEW MODELS OF SCIENTIFIC COMMUNICATION AND RESEARCH EVALUATION"

Virginia Valzano*, Michela Cigola**, Paola Gargiulo***

*University of Salento – CEIT, Italy - SCIRES-IT Founder and Editor-in-Chief
**University of Cassino and Southern Lazio, Italy - SCIRES-IT Editor-in-Chief
***Coordinator of IOSSG, Italy – Special issue SCIRES-IT Guest Editor.

Abstract

This special issue of SCIRES-IT is primarily dedicated to the Workshop "Open Science: new models of scientific communication and research evaluation" held at CEIT-University of Salento (Italy), on 30 January 2019. It contains most of the speakers' papers and some other relevant contributions related to research evaluation issues.

Keywords

SCIRES-IT, Editorial, SCIentific RESearch and Information Technology, Open Science, Open Access, Scientific communication, Research evaluation, Workshop

This special issue of SCIRES-IT is dedicated to the topic of the Workshop "Open Science: new models of scientific communication and research evaluation" held in Cavallino (Lecce, Italy) at CEIT-University of Salento, on 30 January 2019. [1]

It primarily contains the proceedings of the Workshop with the additions of some articles focusing more specifically on issues related to research evaluation. It includes an overview of the Workshop by D. Lucarella and the contributions of most of the speakers: V. Valzano, D. Pallara, P. Miccoli - R. Rumiati - D. Checchi, M. Cigola, R. Caso, M. C. Pievatolo, P. Gargiulo and S. Bianco, listed according to the order of their presentations in the programme. A contribution by P. Galimberti on open science and reseach evaluation, one on journal ranking by A. Gallozzi – L. J. Senatore and two contributions on key (crucial) issues related to research evaluation in architecture and close disciplines by C. Bianchetti, R. Florio, enrich the second part of this issue.

The idea of dedicating a special issue of SCIRES-IT to these themes was born within the Workshop, it was further strengthened with the appearance of the Covid-19 epidemic spread globally in a few months which made self evident and urgent one more time the need to put Open Science principles into practice worldwide.

The open dissemination of research results and the immediate sharing of data are crucial in the battle against the spread of a virus and in the search for treatments and a vaccine.

Many doctors and scientists from various countries have begun to openly and rapidly share publications, data and results of their findings and have signed an appeal for this to happen globally.

The World Health Organization (WHO), many institutions and other national and international organizations are keeping us current and are making data and publications openly available.

Publishers around the world have made their publications available for free access, unfortunately in several cases only for a short time.

In general university library systems and libraries have been actively contributing, in line with their mission, to make all the materials freely and immediately accessible to the scientific and academic community, students and citizens.

All this must no longer be, as it has been considered by many, something exceptional.

Open Access(OA) and more broadly Open Science (OS) must be a real opportunity for a more effective, transparent, solid and useful

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scientific communication for the progress of science, knowledge and innovation. A new open and participatory way of doing research, of disseminating, evaluating and reusing its output through timely sharing of information, data and results is a must. (Science as an open enterprise, 2012)

In Europe, in the last decade, Open Science has become a real priority on the political agenda of some countries.

In Italy we are a bit late due to the absence of a national strategic vision, common objectives, effective implementation and monitoring of institutional policies.

However, there are a few virtuous realities, Universities, Associations and cultural Organizations, Research Centers and Groups and peer reviewed journals (such as SCIRES-IT), which have a strategic vision and adopted policies and practices of open science, as some of the papers confirm.

In general, the current communication system place barriers to knowledge, instead of favouring its progress as it is based largely on scientific journals subscribed at outrageous prices and on current quantitative evaluation criteria rewarding publications in toll journals with a high impact factor.

Furthermore, in the academic world, the current copyright rules, which should concern the protection of rights and not the protection of commercial interests, are directly in conflict with the Open Science development.

The problems concerning Open Science are many and complex.

In a rapidly evolving scenario, something, but not much, is changing in Italy at political and institutional level.

Towards the end of 2018 the Ministry of Education, University and Research (MIUR) began to take an interest in Open Science and in 2019 it expressed its intention to draw up a national and define a long-term strategic vision on Open Science.

On 29 November it was released the Ministerial Decree n.1110 containing the guidelines of the ANVUR call (National Agency for the Evaluation of Universities and Research) for the periodic evaluation of the quality of research (VQR), relating to the period 2015-2019.

In the call published by ANVUR on 7 January 2020 for the 2015-2019 Research Quality Assessment (VQR 2015-2019), it was specified, as required by the Decree, that the research products (output) chosen for the assessment must be freely available in an Open Access Archive.

This is a first step in terms of transparency and feedback on the results of publicly funded research.

But there is still a lot to do as several contributors to this issue rightly argue. Research evaluation rules should also change, finding new ways to measure the real impact of scientific work.

In any case, even in the presence of questionable evaluation criteria which should be revised, the principles of Open Science should always be practiced. They are not at odds with research evaluation.

In his speech delivered at the end of last year, the President of the Republic also made it clear that science and culture must be available to all, as it is guaranteed by the UN Universal Declaration of Human Rights, by our Constitution and most of the Constitutions of the states of the European Union.

The initiatives taken in recent months by the Ministry of University and Research for the definition of the National Research Program 2021-2027 (PNR), contemplate the engagement of various central and regional administrations, of experts from the academic and research communities and a public consultation. If practical actions follow, a shared research knowledge system based on open tools will get off the ground.

The PNR document outlines research policies in Italy, identifies priorities, objectives, actions and a series of methodological approaches and research and innovation policies, including Open Science and Citizen science. The Program also includes two National Plans dedicated respectively to Research Infrastructures and Open Science. A constant monitoring of results and financial investments should be also foreseen in order to achieve what is stated in the document.

As it has been said by many on several occasions, a radical and lasting cultural change is needed in the entire system of scientific communication, to restore science to its nature of "great conversation" and collaboration, rather than competition.

We are aware that introducing data sharing policies takes time, we strongly hope that the

scientific communities, governments, institutions, data-holding companies and government agencies will learn the lessons from the Covid-19 pandemic, unfortunately still in progress, and urgently adapt their policies remove obstacles and put into practice the principles of Open Science, the only possible way of practicing Science.

REFERENCES

AISA. (2020). *Lettera aperta al Presidente della Repubblica Mattarella. Scienza aperta e valutazione della ricerca in tempo di crisi*. Retrieved from https://aisa.sp.unipi.it/wp-content/uploads/2020/03/Lettera_aperta_AISA.pdf

ANVUR (2019). *Bando VQR 2015-2019*. Retrieved from https://www.anvur.it/news/bando-vqr-2015-2019/

Besançon. L., Pfeiffer-Smadja, N., Segalas, C., Jiang, H., Masuzzo, P., Smout C., Deforet, M., & Leyrat, C. (2020). *Open Science saves lifes. Lessons from the Covid-19 pandemic* (preprint). Retrieved from https://www.biorxiv.org/content/10.1101/2020.08.13.249847v1 https://doi.org/10.1101/2020.08.13.249847

Call for Open Access to COVID-19 publications (2020). Retrieved from https://www.ic.gc.ca/eic/site/063.nsf/eng/h_98016.html

Capocasa, M., Destro Bisol, G., & Anagnostou, P. (2020). *Why (and how) COVID-19 could move us closer to the "health information for all" goal* (preprint). Retrieved from https://doi.org/10.1101/2020.07.23.20160481

EU Commission. Directorate General for Research and Innovation (2017). *Evaluation of research careers fully acknowledging Open Science practices. Rewards, incentives and/or recognition for researchers practicing Open Science.* Retrieved from https://op.europa.eu/en/publication-detail/-/publication/47a3a330-c9cb-11e7-8e69-01aa75ed71a1/language-en

EU Commission. Directorate General for Research and Innovation (2020). *Progress on Open Science: Towards a Shared Research Knowledge System. Final Report of the Open Science Policy Platform*. 2016-2020. Retrieved from https://ec.europa.eu/research/openscience/pdf/ec_rtd_ospp-final-report.pdf

Galimberti, P. (2020) *Open Science: cambiamento culturale cercasi*. Retrieved from https://zenodo.org/record/4014989

ICOLC (202O) *Statement on the Global COVID-19 Pandemic and Its Impact on Library Services and Resources*. Retrivevd from https://icolc.net/statement/statement-global-covid-19-pandemic-and-its-impact-library-services-and-resources

Messaggio di fine anno del Presidente della Repubblica Sergio Mattarella (2019). Retrieved from https://www.quirinale.it/elementi/42667

MIUR (2019). *DM n.1110. Linee guida per la valutazione della ricerca 2015-2019*. Retrieved from https://www.anvur.it/wp-content/uploads/2019/12/DM-n.1110_29.11.2019.pdf

MIUR (2020). *Consultazione pubblica sul Programma Nazionale della ricerca 2021-2027*. Retrieved from https://ec.europa.eu/eusurvey/runner/MURPNR2127

Science as an open enterprise (2012). London: Royal Society. Retrieved from: https://royalsociety.org/-/media/policy/projects/sape/2012-06-20-saoe.pdf

UNESCO (2020). *Open access to facilitate research and information on COVID-19*. Retrieved from https://en.unesco.org/covid19/communicationinformationresponse/opensolutions

Valzano, V., & Cigola, M. (2020). Editorial. Opening of the 10th year of SCIRES-IT. *SCIRES-IT - SCIentific RESearch and Information Technology*, 10(1), I-V. Retrieved from DOI: http://dx.doi.org/10.2423/i22394303v10n1pI

WHO - World Health Organization (2020). Global resources on Coronavirus disease (Covid-19). Retrieved from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov