

OPEN ACCESS OF RESEARCH: WHICH ROLE IN THE PROCESSES OF EVALUATION? EXPERIENCE BY THE AGENZIA NAZIONALE DI VALUTAZIONE DEL SISTEMA UNIVERSITARIO E DELLA RICERCA (ANVUR)

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Abstract

This article focuses on Open Access and Research Evaluation, and the experience by the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR). It is an updated version of the work presented at the Workshop "Open Science: new models of scientific communication and research evaluation", organized by Virginia Valzano at the University of Salento, on January 30, 2019.

Keywords

Open Access, Open Science, Research Evaluation, ANVUR

In a tweet of October 29, 2019, Chris Skidmore, the British Minister for University Science Research and Innovation, once more stressed the importance of rapid and effective actions by both Governments and scientific community, to move towards an open science policy in Europe: *"The situation really highlights the urgent need to move to full and immediate #openaccess publishing, which clearly is the future direction of research. It is vital and imperative that the UK should continue to lead the way, including through Plan S. @cOAlitionS_OA"*. Likewise Times Higher Education recently quoted: *"New analysis reveals "staggering differences" in effective prices per article paid by university consortia across Europe to big five scientific publishers."*

Making the research outcomes freely accessible to the scientific community and to the society at large is a desirable perspective in several respects, but it involves revising the ways under which science is created and disseminated. Open science implies the recognition that public investment is the main driver for science in any country, from stipends of academics to labs maintenance, from research grants to funding of strategic fields (space, genetics, environment). In addition, despite unavoidable academic competition, science advancement is a collective

process, where new research builds upon previous results. Knowledge is mostly embedded in scholars, who have become more and more internationally mobile, creating further interdependence among research centers. Lastly, the availability of ICT technologies has created an easier ground for communication and exchanges of information.

This unavoidable push in the direction of opening up of scientific community clashes against market forces intended to private appropriation of scientific results in order to exploit them for economic purposes. On the one hand, patenting restrains a joint research effort in specific fields (pharmacology, new materials, engineering). On the other hand, dissemination via academic journals transforms a cooperative work into a profitable business.

Both authors and reviewers are generally not paid for their work and their competence. Thus the inputs in the dissemination of science are (almost) freely available. However the competition among alternative channels of communication induced by private publishers (i.e. competing journals, ranked by their impact) creates room for profits. The economic theory of superstars illustrates this case: if you have n competitors in a market for visibility (sponsors,

public events, and the like) and they are all identical, each of them will obtain $1/n$ of the market. But if you can reach a situation where a small fraction of them become dominant, they can appropriate the entire market.

As already put in evidence by the European Union through the European University Association (EUA) many criticisms have been raised inside the scientific community towards several aspects of the entire process of science publishing. In a recent event, held in Brescia in June 2019, Lidia Borrell-Damià, Director of Research and Innovation, focused on two main aspects: *“the quality of an article produced by researchers is not evaluated directly, rather through a proxy, i.e., the reputation of the journal it is published in”*; this involves a second negative effect on the side of the economic power of commercial publishers but also of their ability to address the research according to their possible interest: *“this situation reinforces the dominant position of commercial academic publishers and disproportionately adds to their power in shaping the way research is funded and conducted”*. In other words, publishers build up the market, i.e. they can decide to open or close journals, in the latter case if an off stream field of research does not have a commercial interest.

The competition among publishers is one to one to the competition among their corresponding journals, and this leads to a waste of a lot of energies. The typical example is offered by the phenomenon of *repeated rejections* of articles submitted to top journals when journals *rankings* are clearly evident. In the October 26th 2018 issue, Times Literary Supplement stressed the fact that in the area of philosophy *“the acceptance rates are implausibly low...for about two thirds of the leading philosophy journals the rate is less than 10%”*. As long as submission fees are low or non-existent, the rational strategy for publishing an article is that of submitting to the top journal and, once rejected, to go down along the ranking list. Since quality assessment through peer revision implies some randomness in the process (you may always encounter some reviewer that likes your paper), this strategy involves some positive probability of being published in highly ranked journals, irrespective to the real content of the article.

If we combine this with the apportionment of science going hand in hand with the market enlargement (more and more journal are

appearing, since more and more publishers are attracted by profits collected by dominant publishers), it becomes clear how fortuitous can it be to obtain a publication on a highly reputed journal. In addition competent referees can be harder and harder to find in some fields of science and the enormous increase of the number of journals makes sometimes difficult to verify all the results or to avoid the risk of outcomes manipulation. If we add that the refereeing activity is typically not acknowledged among the academic duties, one can understand how the building of science is jeopardized by the way in which scientific production is organized.

Nonetheless the present situation offers some advantages that are beyond debate. The process of selection proved to be effective thanks to the work of editors who are paid, at least for the most prestigious journals, but also thanks to the accurate choice and rotation of editorial boards who are in charge of the anonymity of the entire process of revision; moreover the citation network is easier to recognize and the readers are greatly favored when selecting the papers more interesting for their scientific work and also for their continuous formation.

The proposal of maintaining the individual right of researchers to make possible an open access to the results of their research is a key issue since it impacts on the diffusion of outcomes; it also has an important effect on two main aspects inside the scientific community: the structure of incentives and career progression and the entire process of research evaluation. The latter has been the object of a thorough reflection inside the Agenzia Nazionale di Valutazione dell'Università e della Ricerca (ANVUR), the Italian agency for the evaluation of universities and research, especially in view of the third exercise of evaluation of research (VQR) held every five years in Italy.

At the end of 2018, in an internal document sent to the Ministry, ANVUR had suggested to trigger a process able to guide the Italian research, at least the one funded by public resources, towards an open access of the science. The process itself was envisaged to be gradual and the indications suggested by ANVUR and adopted by MIUR followed closely this idea. For the first time the VQR Guidelines of the Ministry contain an explicit warning in support of the accessibility of all the research products submitted for evaluation. It is nothing but a

signal, if one considers that it involves just three or four papers per scholar over five years. But it is a powerful signal, since the best research outcomes of the entire country over a time interval are going to be made open access (with limits regarding books). The action is intended as a first step towards a policy of open science in Italy.

It is important to recall that the decree does not impose the necessity of publishing in open access journals but only to make the submitted papers freely accessible to any reader in one of the following forms (green open access): a) University Repository, b) *Open subject repository* (e.g. PubMed, ArXiv); c) *Discussion papers series*, and d) Personal websites of Researchers.

In the call published by ANVUR on January 7th, 2020 (ANVUR, BANDO. Valutazione della Qualità della Ricerca 2015-2019 - VQR 2015-2019), it has also been specified that the research products must be accessible at least in one of the following

versions: a) Version of Record, VoR; b) Author's Accepted Manuscript, AAM, and c) Submitted Version.

As for all the monographies, ANVUR will take care of signing *ad hoc* agreement with each Publisher.

Last but not least, it was decided that in both the Guidelines and the Call all the actions set up by Universities and National Research Institutions addressed to the empowerment of Open Access will find a place in the part relative to Third Mission inside the VQR. The message embedded in these documents is clear: the Italian scientific community is urged to fully revise its modalities of diffusion and dissemination of knowledge in a logic of necessary accountability of the public resources utilized by researchers and Institutions. It is a process that will take time and involve research communities of other countries. But we are tempted to conclude that *alea iacta est!*

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