

OPEN ACCESS AND JOURNAL RANKING. FIRST CONSIDERATIONS

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Abstract

The aim of the article is to give a first overall view of the position, score and/or rank of the "non bibliometric" journals in the ANVUR list of the "08 Architettura" area, with regard to the "Arts and Humanities" themes that are present in all the databases examined, in order to table the sampled journals in a summary framework - among the various methods of evaluation of the research -. An attempt has been made to compare the most frequent databases in order to obtain a hierarchy of reference, in an attempt to identify how the journals Open Access are placed in the panorama under examination.

Journal Rank, Open Access, Bibliometric system, Non-Bibliometric system, Scopus, SCImago, ANVUR.

1. Introduction

In the current condition of forced isolation due to the Covid-19 pandemic that has hit the planet, terms such as "Open Science" or "Open Access" are taking on a new meaning. The limitation of access and movement has, without any doubt, repercussions in the areas of traditional research, i.e. that process of in-depth study centred on libraries and archive research without which the basic principles of replicability and verification of the sources that constitute the basic foundation of scientific research are lacking.

Digital, which is changing our daily way of life so much, allows the realization of a new approach to knowledge, and there is no doubt that many institutions have already turned their attention to new forms of dissemination and accessibility to content, especially those forms of service generically defined as Open, which allows the fruition of their products thanks to a simple access to the web.

The term "Open Access" defines an essential part of a broader movement called "Open Science" which proposes a new model for the dissemination of scientific research results which, using free platforms, is accessible from any level of users through the current IT platforms. At the base of the general model we find a basic idea: to favour research and in-depth study, it is necessary to build a system where the various results proposed can be easily accessible to

everyone, so that everyone can evaluate the quality of individual products and interact with them in a system that is not blocked by the editorial superstructures typical of the traditional model. All this without losing sight of the quality of the published products, which can have various levels of verification and comparison (peer review) before being published, but guaranteeing that the product overcomes all the limits linked to the "analogue" world in order to fully enjoy the advantages of the "digital".

2. The milestones of the Open approach by the institutions

At the basis of this new model of approach to culture we can identify some fundamental phases:

1) *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003) which is one of the milestones of the Open Access Movement.*

2) *Messina Declaration (2004) which defines the Italian way to Open Access and updated in 2014 with a road map 2014-2018.*

These first official documents show that the entire international scientific community is increasingly turning towards this new approach. Demonstration of this is the birth of a series of control bodies and the drafting of numerous declarations aimed at defining the guidelines and structure of this new model. Since the Messina

Declaration, our country has also taken an official interest in the Open Access theme. In particular, since the Messina Declaration, CRUI has set up a research group on Open Access within the Libraries Committee with the aim of disseminating and promoting the new model, fundamentally institutionalizing the processes of control, evaluation and inclusion of Open products within the traditional circuits (CRUI, 2009).

Moreover, several national research realities have contributed through the participation and development of several pilot projects on Open Access within the Seventh Framework Programme (Fava, 2015), among which we can mention OpenAIRE¹ (Open Access Infrastructure for Research in Europe), MedOANet² (Mediterranean Open Access Network) and Pasteru4OA³ (Open access policy alignment strategies for European Union research).

3. *Beyond the "Peer Review": Bibliometric and Non-Bibliometric Systems*

The "peer review" is the traditional method by which an academic contribution is evaluated in order to find its place in a scientific publication. The Open Access model does not distort this system but integrates and improves it through a critical use of new technological tools available to the scientific community. "However, in its current form, the "peer review" is subject to criticism. Open Access and the new technological tools available can provide the means to improve and

¹ OpenAIRE was born in 2009 as a project funded under the 7th Framework Programme of the European Commission, to disseminate Open Access on a pan-European scale, subsequently OpenAIRE2020 was funded in Horizon20, with the participation of 50 partners from all 28 EU countries, and dedicated to fostering open access to publications and data provided by the Horizon 2020 legislation.

² The MedOANet Project, funded by the European Commission under the Science in Society Programme of the Seventh Framework Programme, aims to identify strategies, structures and policies on Open Access in six countries of the Mediterranean area (Greece, Italy, France, Spain, Portugal and Turkey), coordinating joint actions to promote Open Access and its wide and concrete affirmation in universities and research institutions.

³ The Pasteru4OA project was designed to support the European Commission's recommendation to Member States of July 2012 to increase and implement policies to ensure Open Access to all publicly funded research results, helping to develop and/or strengthen Open Access strategies and policies at national level and facilitating their coordination among all Member States.

enhance it, making it more transparent, more correct and effective (e.g. by broadening the reporting base, but also by providing control and assurance tools)". (CRUI, 2009).

Currently the research world evaluates its products by placing them within two macro-categories in relation to the specific specifications: Bibliometric or Non-Bibliometric Systems (peer reviews).

Bibliometrics, through specific techniques and metric procedures, analyses the impact and distribution of scientific publications within the academic community. It offers quantitative methods for research evaluation, which should always be considered together with qualitative methods (peer-reviewing). At the basis of this distinction lies the need to have evaluation tools capable of exploiting the infrastructures (traditional and Open) aimed at defining, as objectively as possible, the quality of a research product. The objective of this evaluation model is the attribution of quality to an editorial product on the basis of different parameters, in relation to the methods of referral and approval by the scientific community, approval which is greater in relation to the Citation model (a greater number of citations is equivalent to a greater quality of the cited article).

Structured independently of each other, the Bibliometric models provide for an "objective" numerical evaluation of the product, based on shared parameters. It is essentially a matter of integrating qualified evaluation with elements of an open nature, through the use of control indices⁴ which, as some studies show, do not seem to radically revolutionize traditional results, demonstrating that the Open evaluation system has its own scientific validity (Bollen, Sompel, Smith & Luce, 2005) (Brody, Harnad & Carr, 2006) (Harnad & Brody, 2004) (Figà Talamanca, 2000) (Lawrence, 2001).

4. *Reviews classification – Journal Rank*

In this brief contribution, a number of journals from the "non bibliometric" world that belong to the ANVUR list of the "08 Architettura" area have been taken into consideration, according to a very precise criterion, with regard

⁴ For further information on the various valuation indices, please refer to Table A of the CRUI 2009 Document at https://www.cruir.it/images/allegati/pubblicazioni/2009/OA_valutazione.pdf.

to the "Arts and Humanities" themes. An attempt has been made to elaborate a comparison between the most recurrent databases, in order to obtain a hierarchy of reference, in an attempt to identify how Open Access journals are placed in the panorama under examination.

The analysis involves the position, score and/or rank of the "Area 08" journals that are present in all the databases examined, in order to tabulate the sampled journals in a summary framework - among the various methods of evaluation of the research. Some area journals, although they have a significant and recognised scientific value, have not been included in this analysis, because -at the state of elaboration- they were not simultaneously present in all the data bases considered. Therefore, it would not have been possible to table the data correctly in a joint comparison.

The first survey involved the tables compiled by ANVUR, in which the scientific and Class A journals (ANVUR, 2019)⁵ are listed.

Then the data from the SCImago⁶ database were examined. In it are listed the rankings of journals from all over the world. The position of the journals is articulated in relation to the country of edition and the geographical area of reference (Western and Eastern Europe, North America, etc.), moreover the search engine offers

⁵ Data processing was based on tables valid until 6/04/2020. The new tables, valid from August, 11, 2020, show some variations such as the inclusion of several new titles in the rank of Class A and scientific journals.

⁶ The SCImago Journal & Country Rank (SJR) is a basic bibliometric indicator, introduced in 2008 as an alternative to the Impact Factor, which measures the degree of influence of a scientific journal and is calculated from citation data extracted from the Scopus database. The SJR is calculated both by counting the number of citations and by evaluating the prestige of the journal from which the citation received comes, and then attributing a different "weight" to the citations according to their origin, with an algorithm similar to the Google search engine pagerank. The algorithm gives a higher weight to journals that receive citations from journals with higher SJR. The indicator was developed by the Scimago research group, composed of the Consejo Superior de Investigaciones Científicas (CSIC), University of Granada, Extremadura, Carlos III (Madrid) and Alcalá de Henares.

To search for the SJR of a journal, simply search by journal title on the platform or within the Scopus database. As for the IF you can view the quartile of the category rank in which a journal is placed.

The system allows to graphically display a rich amount of statistical and comparison data for each journal and allows to compare journals, disciplinary and geographical areas (CNR, 2020).

the possibility to make selections by subject Areas.

Finally, reference has been made to Scopus⁷ data. The latter, being the largest database of abstracts and quotations of peer-reviewed documents (scientific journals, books and conference proceedings), constitutes the reference basis for any work that examines the impact of a journal or any published work. In fact, the SCImago index itself is calculated from the citation data extracted from the Scopus database.

For SCImago and Scopus, reference was made to the 2018 data, the only ones completed and confirmed at the time this contribution was made.

In a first step the data related to the journals 08 Architettura of the ANVUR list were superimposed with the relative selection in SCImago, elaborating a table with only the journals present in both databases. Moreover, in this phase only the journals from Western Europe and America (which for SCImago includes USA and Canada) were examined, in order to have a sufficiently exhaustive view of the Western scientific panorama.

The results of this analysis are summarised in the list of 23 Class A journals (Tab. 1) and 20 scientific journals (Tab. 2).

The tables show the title of the journals, their ISSN, whether or not they are Open Access and the geographical scope of their publisher as classified in SCImago.

In order to make the table easier to read, the scope "America" of SCImago has been indicated as USA, while specifying that it also includes Canada. Avoid using the abbreviation "A" in order not to generate confusion with the ANVUR Class of the magazine.

Subsequently, each magazine was associated with the value assigned to it by SCImago, the results of which are summarised in Table 3.

Similarly, the data relating to the Citations of 2018 (CiteScore) were extracted from the Scopus

⁷ Delivering a comprehensive overview of the world's research output in the fields of science, technology, medicine, social sciences, and arts and humanities, Scopus features smart tools to track, analyze and visualize research.

Scopus offers free features to non-subscribed users and is available through Scopus Preview. Researchers may use Scopus to assist with their research, such as searching authors, and learning more about Scopus content coverage and source metrics (Scopus, 2019).

Tab. 1. Class A Journals in SCImago

Title	ISSN	OA	GEO
American Journal of Archaeology	ISSN:0002-9114		USA
Annali di Architettura	ISSN:1124-7169		EU
Archeologia e Calcolatori	ISSN:1120-6861 E-ISSN:2385-1953	OA	EU
Architectural Design	ISSN:0003-8504		USA
Arte Medievale	ISSN:0393-7267		EU
Artforum International	ISSN:1086-7058 E-ISSN:1098-3376		USA
Bollettino d'Arte	ISSN:0394-4611		EU
Citta e Storia	ISSN:1828-6364		EU
Conservation Science in Cultural Heritage	ISSN:1974-4951 E-ISSN:1973-9494	OA	EU
Disegnare Idee Immagini	ISSN:1123-9247		EU
Harvard Design Magazine	ISSN:1093-4421		USA
I Tatti Studies	ISSN:0393-5949 E-ISSN:2037-6731		EU
International Journal of Architectural Heritage	ISSN:1558-3058 E-ISSN:1558-3066		USA
Journal of Archaeological Science	ISSN:0305-4403 E-ISSN:1095-9238		USA
Journal of Interior Design	ISSN:1071-7641		USA
Journal of Roman Archaeology	ISSN:1047-7594 E-ISSN:1063-4304		USA
Journal of the Society of Architectural Historians	ISSN:0037-9808		USA
Lotus International	ISSN:1124-9064		EU
Melanges de l'Ecole Francaise de Rome: Antiquite	ISSN:0223-5102 E-ISSN:1724-2134		EU
Nexus Network Journal	ISSN:1522-4600		USA
Ricerche di Storia dell'Arte	ISSN:0392-7202		EU
SCIRES-IT	E-ISSN:2239-4303	OA	EU
Territorio	ISSN:1825-8689 E-ISSN:2239-6330		EU

Tab. 2. Scientific Journals in SCImago⁸

Title	ISSN	OA	GEO
Archeologia Medievale	ISSN:0390-0592		EU
Arte Cristiana	ISSN:0004-3400		EU
Contemporanea	ISSN:1127-3070		EU
Design Issues	ISSN:0747-9360		USA
Design Principles and Practices	ISSN:1833-1874		USA
European Journal of Cultural Studies	ISSN:1367-5494		USA
Festival dell'Architettura Magazine	E-ISSN:2039-0491	OA	EU
Future Anterior	ISSN:1549-9715 E-ISSN:1934-6026		USA
International Journal of Fashion Design, Technology and Education	ISSN:1754-3266 E-ISSN:1754-3274		USA
Journal of Architectural Engineering	ISSN:1076-0431 E-ISSN:1943-5568		USA
Journal on Computing and Cultural Heritage	ISSN:1556-4673 E-ISSN:1556-4711		USA
Journal of Material Culture	ISSN:1359-1835 E-ISSN:1460-3586		USA
Leonardo	ISSN:0024-094X		USA
Mediterranea: Ricerche Storiche	ISSN:1824-3010 E-ISSN:1828-230X	OA	EU
Prospettiva	ISSN:0394-0802		EU
Renaissance quarterly	ISSN:0034-4338 E-ISSN:1935-0236		USA
Sistemi Intelligenti	ISSN:1120-9550 E-ISSN:1973-8226		EU
Studi Piemontesi	ISSN:0392-7261		EU
TeCLa	ISSN:2038-6133		EU
Urban History Review Revue d'Histoire Urbaine	ISSN:0703-0428		USA

⁸ SCImago does not insert in its tables journals which values are lower than 0.1.

Tab. 3. SCImago Classification

Rank	Title	OA	GEO	ANVUR	SJR	SJR Best Quartile
1	Journal of Archaeological Science		USA	A	1,717	Q1
2	European Journal of Cultural Studies		USA	S	0,772	Q1
3	International Journal of Architectural Heritage		USA	A	0,6	Q1
4	Journal of Material Culture		USA	S	0,525	Q2
5	American Journal of Archaeology		USA	A	0,493	Q1
6	Journal on Computing and Cultural Heritage		USA	S	0,429	Q1
7	Journal of Architectural Engineering		USA	S	0,312	Q1
8	SCIRES-IT	OA	EU	A	0,286	Q1
9	International Journal of Fashion Design, Technology and Education		USA	S	0,278	Q1
10	Design Issues		USA	S	0,274	Q2
11	Nexus Network Journal		USA	A	0,25	Q1
12	Renaissance quarterly		USA	S	0,224	Q1
13	Journal of Roman Archaeology		USA	A	0,217	Q1
14	Journal of Interior Design		USA	A	0,213	Q1
15	Archeologia e Calcolatori	OA	EU	A	0,192	Q2
16	Leonardo		USA	S	0,192	Q1
17	Journal of the Society of Architectural Historians		USA	A	0,176	Q1
18	Architectural Design		USA	A	0,168	Q1
19	Territorio		EU	A	0,156	Q1
20	Sistemi Intelligenti		EU	S	0,147	Q2
21	Archeologia Medievale		EU	S	0,125	Q3
22	Future Anterior		USA	S	0,125	Q2
23	Conservation Science in Cultural Heritage	OA	EU	A	0,117	Q3
24	Contemporanea		EU	S	0,117	Q3
25	I Tatti Studies		EU	A	0,116	Q2
26	Harvard Design Magazine		USA	A	0,115	Q2
27	Melanges de l'Ecole Francaise de Rome: Antiquite		EU	A	0,111	Q2
28	Ricerche di Storia dell'Arte		EU	A	0,11	Q2
29	Disegnare Idee Immagini		EU	A	0,107	Q3
30	Artforum International		USA	A	0,106	Q3
31	Citta e Storia		EU	A	0,104	Q3
32	Mediterranea: Ricerche Storiche	OA	EU	S	0,104	Q3
33	Annali di Architettura		EU	A	0,102	Q3
34	Design Principles and Practices		USA	S	0,102	Q3
35	Bollettino d'Arte		EU	A	0,101	Q4
36	Lotus International		EU	A	0,101	Q4
37	TeCLa		EU	S	0,101	Q3
38	Urban History Review/Revue d'Histoire Urbaine		USA	S	0,101	Q4
39	Arte Cristiana		EU	S	0,1	Q4
40	Arte Medievale		EU	A	0,1	Q4
41	Prospettiva		EU	S	0,1	Q4
42	Studi Piemontesi		EU	S	42	Q4
43	Festival dell'Architettura Magazine	OA	EU	S	43	-

Tab. 4. SCOPUS Classification

Rank	Title	OA	GEO	ANVUR	CiteScore
1	Journal of Archaeological Science		USA	A	3,35
2	Journal on Computing and Cultural Heritage		USA	S	1,83
3	International Journal of Architectural Heritage		USA	A	1,78
4	European Journal of Cultural Studies		USA	S	1,75
5	Journal of Material Culture		USA	S	1,12
6	SCIRES-IT	OA	EU	A	1
7	Journal of Architectural Engineering		USA	S	0,98
8	American Journal of Archaeology		USA	A	0,9
9	International Journal of Fashion Design, Technology and Education		USA	S	0,85
10	Design Issues		USA	S	0,75
11	Renaissance quarterly		USA	S	0,58
12	Journal of Roman Archaeology		USA	A	0,48
13	Nexus Network Journal		USA	A	0,38
14	Journal of Interior Design		USA	A	0,37
15	Architectural Design		USA	A	0,29
16	Journal of the Society of Architectural Historians		USA	A	0,2
17	Archeologia e Calcolatori	OA	EU	A	0,18
18	Leonardo		USA	S	0,17
19	Territorio		EU	A	0,17
20	Mediterranea: Ricerche Storiche	OA	EU	S	0,16
21	Design Principles and Practices		USA	S	0,15
22	Conservation Science in Cultural Heritage	OA	EU	A	0,14
23	Urban History Review/Revue d'Histoire Urbaine		USA	S	0,14
24	Melanges de l'Ecole Francaise de Rome: Antiquite		EU	A	0,12
25	Archeologia Medievale		EU	S	0,11
26	Future Anterior		USA	S	0,11
27	Annali di Architettura		EU	A	0,102
28	Contemporanea		EU	S	0,1
29	I Tatti Studies		EU	A	0,07
30	Sistemi Intelligenti		EU	S	0,07
31	Studi Piemontesi		EU	S	0,06
32	Arte Medievale		EU	A	0,04
33	Artforum International		USA	A	0,04
34	Citta e Storia		EU	A	0,04
35	Disegnare Idee Immagini		EU	A	0,04
36	Harvard Design Magazine		USA	A	0,04
37	Prospettiva		EU	S	0,04
38	Ricerche di Storia dell'Arte		EU	A	0,01
39	Arte Cristiana		EU	S	0
40	Bollettino d'Arte		EU	A	0
41	Lotus International		EU	A	0
42	TeCLa		EU	S	0
43	Festival dell'Architettura Magazine	OA	EU	S	n/a

Tab. 5. Final classification obtained by intersecting the ANVUR, SCImago and SCOPUS data

Rank	Title	ISSN	OA	GEOo	ANVUR	SCImago	SCOPUS
1	Journal of Archaeological Science	ISSN:0305-4403E- ISSN:1095-9238		USA	A	1	1
2	International Journal of Architectural Heritage	ISSN:1558-3058E- ISSN:1558-3066		USA	A	3	3
3	European Journal of Cultural Studies	ISSN:1367-5494		USA	S	2	4
4	Journal on Computing and Cultural Heritage	ISSN:1556-4673E- ISSN:1556-4711		USA	S	6	2
5	Journal of Material Culture	ISSN:1359-1835E- ISSN:1460-3586		USA	S	4	5
6	American Journal of Archaeology	ISSN:0002-9114		USA	A	5	8
7	SCIRES-IT	E-ISSN:2239-4303	OA	EU	A	8	6
8	Journal of Architectural Engineering	ISSN:1076-0431E- ISSN:1943-5568		USA	S	7	7
9	International Journal of Fashion Design, Technology and Education	ISSN:1754-3266E- ISSN:1754-3274		USA	S	9	9
10	Design Issues	ISSN:0747-9360		USA	S	10	10
11	Renaissance quarterly	ISSN:0034-4338E- ISSN:1935-0236		USA	S	11	11
12	Journal of Roman Archaeology	ISSN:1047-7594E- ISSN:1063-4304		USA	A	13	12
13	Nexus Network Journal	ISSN:1522-4600		USA	A	12	13
14	Journal of Interior Design	ISSN:1071-7641		USA	A	14	14
15	Archeologia e Calcolatori	ISSN:1120-6861E- ISSN:2385-1953	OA	EU	A	15	17
16	Architectural Design	ISSN:0003-8504		USA	A	18	15
17	Journal of the Society of Architectural Historians	ISSN:0037-9808		USA	A	17	16
18	Leonardo	ISSN:0024-094X		USA	S	16	18
19	Territorio	ISSN:1825-8689E- ISSN:2239-6330		EU	A	19	19
20	Conservation Science in Cultural Heritage	ISSN:1974-4951E- ISSN:1973-9494	OA	EU	A	23	22
21	Archeologia Medievale	ISSN:0390-0592		EU	S	21	25
22	Future Anterior	ISSN:1549-9715E- ISSN:1934-6026		USA	S	22	26
23	Sistemi Intelligenti	ISSN:1120-9550E- ISSN:1973-8226		EU	S	20	30
24	Melanges de l'Ecole Francaise de Rome: Antiquite	ISSN:0223-5102E- ISSN:1724-2134		EU	A	27	24
25	Mediterranea: Ricerche Storiche	ISSN:1824-3010E- ISSN:1828-230X	OA	EU	S	32	20
26	Contemporanea	ISSN:1127-3070		EU	S	24	28
27	I Tatti Studies	ISSN:0393-5949E- ISSN:2037-6731		EU	A	25	29
28	Design Principles and Practices	ISSN:1833-1874		USA	S	34	21
29	Annali di Architettura	ISSN:1124-7169		EU	A	33	27
30	Urban History Review/Revue d'Histoire Urbain	ISSN:0703-0428		USA	S	38	23
31	Harvard Design Magazine	ISSN:1093-4421		USA	A	26	36
32	Artforum International	ISSN:1086-7058E- ISSN:1098-3376		USA	A	30	33
33	Disegnare Idee Immagini	ISSN:1123-9247		EU	A	29	35
34	Citta e Storia	ISSN:1828-6364		EU	A	31	34
35	Ricerche di Storia dell'Arte	ISSN:0392-7202		EU	A	28	38
36	Arte Medievale	ISSN:0393-7267		EU	A	40	32
37	Studi Piemontesi	ISSN:0392-7261		EU	S	42	31
38	Bollettino d'Arte	ISSN:0394-4611		EU	A	35	40
39	Lotus International	ISSN:1124-9064		EU	A	36	41
40	Prospettiva	ISSN:0394-0802		EU	S	41	37
41	Arte Cristiana	ISSN:0004-3400		EU	S	39	39
42	TeCLa	ISSN:2038-6133		EU	S	37	42
43	Festival dell'Architettura Magazine	E-ISSN:2039-0491	OA	EU	S	43	43

database, elaborating, for the same journals in Table 3, the synthesis reported in Table 4.

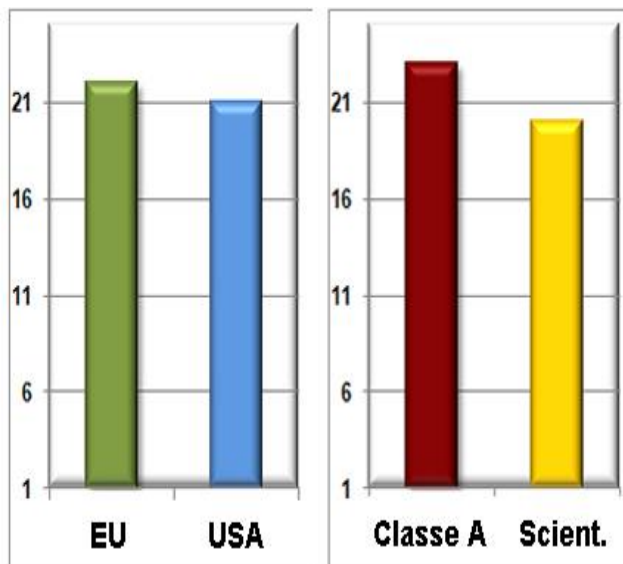
Finally, by cross-referencing both selections from the two previous tables 3 and 4, Table 5 was prepared. The latter summarises the results relating to the cohort of journals examined, according to the criteria explained in the fiction.

The resulting rank takes into account the respective positions of the selected journals, both in SCImago and Scopus, whose new position derives from the joint evaluation of the two databases.

In relation to the results in Table 5, it should also be noted that these are due to the choice to take into consideration only the magazines present and classified in ANVUR, SCImago and Scopus at the same time.

In short, there is essentially an equal distribution by geographical area of the journals examined (22 EU, 21 USA). There is a similar balance between the Scientific journals and the Class A journals (23 Class A, 20 Scientific) - Chart 1.

Chart 1. Journals distinguished by geographical area and type of classification.



Balance that is repeated in the subdivision by geographical area, with a greater presence of Class A in Europe (EU: 13 Class A, 9 Scientific; USA: 10 Class A, 11 Scientific) - Chart 2.

A completely different consideration concerns OA magazines, among those of the cohort analysed. At the time of this survey, OA journals

only appear in the European geographical area and as a percentage of about 12% of the total European sub cohort (Chart 3). Among these three are classified as Class A and two are classified as Scientific.

The results of this analysis, although addressed to a small sample, are indicative of how -today- the presence of OA journals is still significantly contained within the international repertoires.

Chart 2. Class A and Scientific Journals by geographical area.

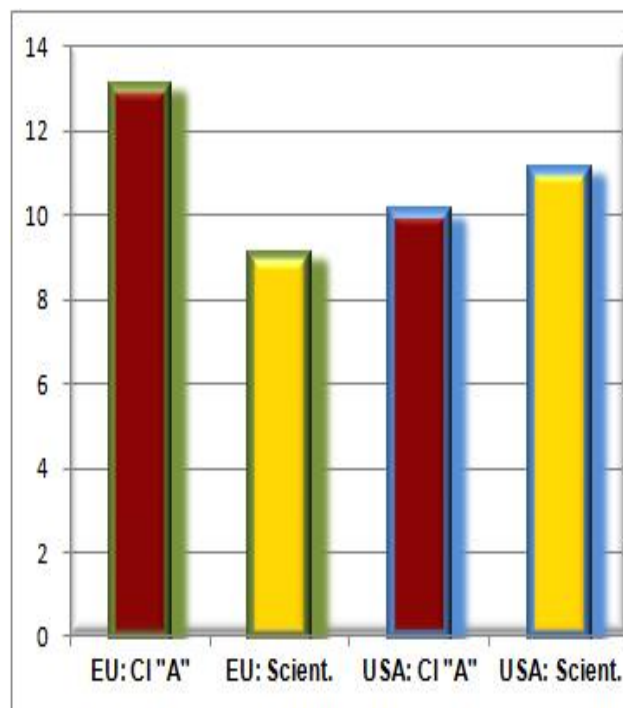
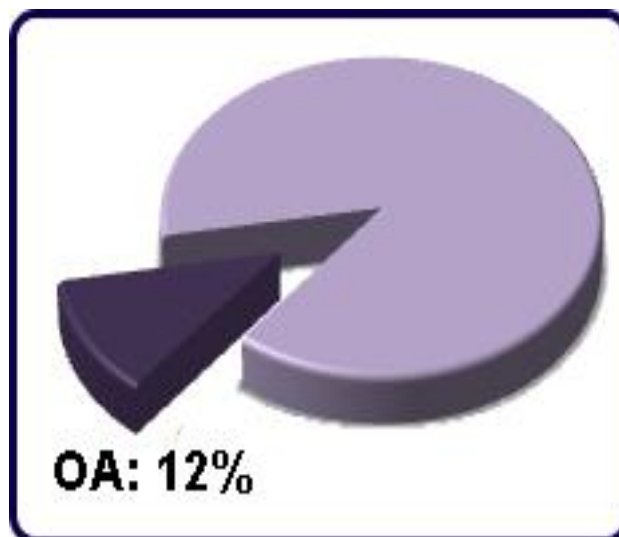


Chart 3. OA Journals, in the European subcohort



However, the last decade has witnessed a progressive and steady increase in interest in OA, with an ever-increasing impulse in recent years. An analysis of the DOAJ (Directory of Open Access Journals) repository, which is one of the major international repositories of scientific Open Access journals, reveals the growing interest of the academic community in this form of publication.

This is also in line with the guidelines of the European Commission which, in the H2020 Programme Guidelines, has considered publication in Open Access to be the most effective way to ensure that research results are accessible, read and used as a basis for further research.

Among other things, OA publications generally promote some positive aspects of the scientific landscape. In particular:

- it can reduce costs related to research funding, thanks to a greater availability of data and information;

- it facilitates the promotion of innovation due to a wider circulation of knowledge between economic actors and potential innovators;

- it can increase interdisciplinary and/or cross-sectoral collaboration, as results obtained in one field can be more easily used in other research fields; it allows transparency of research (often publicly funded) and facilitates the involvement of citizens and society in the innovation process.

Finally, in relation to the methods of evaluating research and classifying journals, both peer-review and, in particular, bibliometric quantitative indexes, albeit with all their limitations (see appendix), are tools that allow a careful analysis of scientific production, all the more useful the more methods are compared with each other.

The proposed analysis is certainly not exhaustive and susceptible to various and multiple considerations, also with regard to the criteria chosen for the selection of data. However, the results obtained, from the small feedback exercise presented, are paradigmatic of how the comparison between several modes of research evaluation can provide diversified indications of scientific products.

5. Costs and concluding considerations

Certainly Open Access has some positive effects: the possibility to read, download and

print freely by anyone the research products, without any economic, legal or time constraint, moreover the intellectual property (copyright) remains regulated according to the different articulations of the "Creative Commons Attribution Licence".

However, ensuring open access and maximum visibility and use of documents does not mean having a cost-free scientific literature. Making search results open and available is by no means free of charge.

The editorial policies of journals are different: some are entirely Open Access (each article is available without any restrictions), others are hybrid (available by traditional subscription, but with the possibility for authors to pay a fee in order to make their article freely accessible to anyone).

Therefore, a not secondary aspect of Open Access concerns the so-called "Publication Charges" (APC Article Processing Charges),

i.e. a commission that can be paid by the author, the institution to which the author belongs or the research funding body. Three forms of PCA can be identified, with very different effects from a financial point of view:

- APCs applied by publishers natively Open Access who have no other source of income and charge a fee for the publication of the peer-reviewed article (it is a sustainable model if the community served by the journal has funds for the purpose, the majority of this type is generally at no cost to the author);

- APC applied by traditional publishers offering the so-called "Open Choice" option, in this case the magazine remains on subscription for the institutions while the single article becomes Open Access against payment (this generates the phenomenon of "double dipping" which actually duplicates the publication costs);

- APC for totally Open Access magazines of commercial publishers.

The subject, which is constantly evolving due to the ever-increasing use of Open Access publications, cannot be fully outlined in these brief notes. The "Gold Road", which provides for the publication of articles directly and immediately accessible to open access; the "Green Road", based on the practice of "Self-Archiving", by authors, of their articles in institutional archives; the so-called "Red Road", a somewhat predatory Open Access mode, which sees

publishers, on the strength of their good academic reputation, ask authors to pay a substantial fee for the publication of their research and, at the same time, subscribe to expensive subscriptions with university institutions; finally, the "Overlay journal" which represents an anthological

selection of texts already available online free of charge (the editors of an overlay journal identify suitable material from open access archives and public domain sources, read it and evaluate its value, this evaluation can also take the form of a peer review process).

APPENDIX

Evaluation Methodologies

Research evaluation methodologies can be articulated according to three approaches:

Quantitative, it develops according to numerical factors of scientific impact (bibliometric indicators, usage indicators, etc.);

Qualitative, it is based on the judgement of peers (evaluators) or peer-review; generally it is a double-blind anonymous evaluation between two experts in the field under analysis, in case of conflicting opinions a third evaluator, previously not involved in the evaluation of the product, is used;

Mixed (Informed peer review), the method integrates peer-reviews with somewhat objective and transparent criteria; using, for example, a bibliometric evaluation based on the number of citations of the product, the number of citations of the host journal, indicators of impact factors of the journal, etc..

Quantitative methods and bibliometric indicators

Bibliometrics is a branch of science that measures and analyses scientific products (scientometry), uses mathematical and statistical algorithms to analyse diffusion and measure the impact of research products within scientific communities.

Among the most widespread bibliometric indicators, they are referred to:

IF - Impact Factor - assesses the level of scientific publications, by measuring the number of citations of works published in a certain journal compared to the total number of works published by the same journal in previous years; however, the assumption that a high citation frequency corresponds to a high quality of the journal, on a conceptual level, has little foundation;

H-Index - edited in 2005 by Jorge E. Hirsch in order to quantify the prolificness and impact of researchers' work, is based on the number of their publications and citations received; it assumes great relevance as it verifies the real influence of a scientist on the community, regardless of the work of authors who, despite having published a lot, have produced only articles of little interest, as is the case using IF.

EI - Eigenfactor - is based on a recent mathematical algorithm that calculates the impact

of academic scientific journals, taking into account the different citation standards between one discipline and another; it assesses the impact of scientific journals in order to define a mapping of academic research;

Altmetrics - the term Altmetrics was first proposed in September 2010 by Jason Priem, it represents a recent alternative to the Impact Factor and personal citation indexes such as the h-index; the indicator, in addition to the number of citations, also considers other aspects related to the impact of a research work, such as the number of data and knowledge bases associated with it, article views, downloads or citations in social media and the media, etc..

Moreover, the increasing availability of scientific literature in Open Access has favoured the development of new bibliometric measures:

JUF - Journal Usage Factors - is a new generation quantitative bibliometric indicator, complementary to the traditional Impact Factor, based on the ratio between the total number of downloads of full-text articles and the number of articles published in a journal, in a set time interval; the indicator aims to measure the impact on electronic resources; the sophisticated algorithm takes into account multiple parameters, type and version of articles, time and mode of access, control of possible manipulation, etc.. The sophisticated algorithm takes into account multiple parameters, type and version of articles, time and mode of access, control of possible manipulations, etc.; however, for this evaluation model a debate is open on the perplexities related to the real motivations behind a download;

WIF - Web Impact Factor (WIF) - the indicator is based on the analysis of links and is derived from the number of contacts that a document published on the web receives, multiplied by the number of pages; it analyses the quantitative aspects of the use of information resources on the web evaluated according to a bibliometric and informal approach.

Non bibliometric journal rankings

In addition to the indicators mentioned above, there are many rankings of disciplinary journals created by institutions and associations, which can be useful and important references especially for the evaluation of non bibliometric areas (art and humanities), or when other indicators cannot be used.

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