

Bibliometrics and ‘core journals’ in the Humanities: an Italian case study

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Abstract: This paper analyses possible transformations in the publication behaviour of Italian humanistic researchers as a results of national research assessment exercises (VQR 2004-2010) and national habilitation exams for academic career (ASN 2012 and 2013). Case study is the humanists’ community of Sapienza University of Rome, a representative sample of Italian context. In particular, this paper examines the use of scientific journals in the last ten years (2004-2014), before and after introduction of a journal rating system. Aim of this research is to verify, through experiment with Sapienza institutional database, if the number of journals selected as outputs by this scholarly community have been changed over the years, producing a more restricted set of “core” journals with a greater scientific strength.

Keywords: Bibliometrics; Core journals; Humanistic research; Journals rating; Research assessment; Research methods; Scholarly communication.

1. Introduction and hystorical framework

In the last thirty years, since the first RAE exercise in 1986, quality assessment of public research has been an important topic in the political agendas of many Countries. In time, the number of Countries that have implemented research assessment policies for their academic systems have been increased (Hicks, 2012; Abramo and D’Angelo, 2015).

In Italy, quality research assessment has been a ‘hot’ topic in the scholarly community in the last ten years: the first assessment exercise (Triennial Research Assessment, VTR 2001-2003) was not compulsory and institutions could freely submit their best research products, but they could even give up. On the other hand, the second exercise (Research Quality Assessment, VQR 2004-2010) was compulsory and each institution had to submit up to three (for universities) or up to six (for research organizations) research outputs for each researcher, depending on their academic seniority.

Although the first exercise had been completely based on peer-review, the second one was a “mixed” type, based on bibliometric analysis for some

disciplines, on peer-review for others (Abramo and D'Angelo, 2015: 3). VQR exercise has involved over 68.000 professors and researchers as well as ten thousand evaluators and has influenced the distribution of standard financial funding (Faggiolani and Solimine, 2014). The increasing amount of research outputs and the high price of *ex-post* peer-review process have encouraged national Agency for the evaluation of University structures and research organizations (ANVUR) to look for new suitable methods in order to make assessment processes more efficient. Bibliometric analysis is considered the most suitable solution for these problems and ANVUR is studying new solutions in its implementation, despite scholarly community largely criticizes this choice.

The strongest reproaches come from Social Sciences and Humanities (SSH) sectors that cover five of the fourteen scientific areas of the Italian Higher Education System:

- Area 10 - Antiquities, philology, literary studies, art history
- Area 11 - History, philosophy, pedagogy and psychology
- Area 12 - Law
- Area 13 - Economics and statistics
- Area 14 - Political and social sciences

In Italy, these areas are usually called “non-bibliometric sectors”, cause of their “distance” from bibliometric analysis, especially from citation analysis. It is well known that bibliometric analysis is based on characteristics and research methods of the Hard Sciences and its history shows this strong relationship (Hertzell, 1987; De Bellis, 2014; Faggiolani, 2015). For example, in the VQR exercise only a small group of SSH disciplines (Psychology and Sport Science) was evaluated through bibliometric indicators: indeed, their research methods and behaviours are probably more similar to the Hard Sciences than to the other SSH. Furthermore, existing bibliographic databases (Web of Science, Scopus, Google Scholar) do not sufficiently cover the SSH scholarly production and analysis could produce results still very inaccurate (Jacso, 2005; Meho and Yang, 2007; Baccini, 2010; Turbanti, 2014). These problems are more evident if we consider only the “traditional” Humanities (e.g. History, Philosophy, Literary studies etc.).

The main issue concerns structural differences between Humanities and Hard Sciences, primarily in methods of publication (Faggiolani and Solimine, 2012). In the Humanities, research outputs can be articles in international or national journals, chapters in edited books, books/monographs, but also non-published outputs such as archaeological excavations, exhibitions etc. (Hicks, 2004). A journal article is not the main form of publication in the humanistic research, it is only a way to introduce new ideas or topics (Lanzillo, 2014) and “some researchers in the humanities point to how the capacity to develop a line of thought and argument is hampered by the shoehorning of work into small articles” (Research Information Network, 2009: 18). If journal articles are the

means of measuring bibliometric indicators, the existing indicators can be quite unreliable about real impact of humanistic research.

This “role” of journal articles is related to the lack of “core journals” idea in the Humanities: humanists usually do not care journal prestige, but prefer journals that facilitate dissemination between people interested in a specific topic (usually a local community). Therefore, there is usually a high range of journals in each humanistic discipline.

However, publication behaviour of Italian humanists could rapidly change in the next years: research assessment exercises and new recruitment systems could lead this transformation. For VQR exercise, each “non-bibliometric” panel (Group of Experts for Evaluation, GEV) had set up a journal rating (in two or three classes: A, B or C) and implemented an *informed peer-review* (Areas 11 and 14) or set up a journal rating useful for the future (Areas 10 and 12). Furthermore, Italian Ministry of University and Research launched a national habilitation exam (ASN) for the academic career in 2012 (and 2013): new journal ratings replaced previous ones, with only two classes (“Scientific journals” and “Class A journals”). Each candidate to habilitation exam have had to satisfy three quantitative indicators: in “non-bibliometric” sectors, one of them is the number of “Class A journal” articles.

Aim of this research is to verify possible transformations in humanistic publication behaviour pushed by new assessment policies. In particular, it tries to understand if the number of journals selected as output by humanistic community have been changed over the years, producing a more restricted set of “core” journals with a greater scientific strength.

2. Research methodology

An useful methodology to reach this purpose is case study method: it is possible to use a complex, representative, sample to understand a specific situation, in order to generalize considerations. This time, case of study is scholarly community of Sapienza University of Rome that, cause of its history and its size, can be a really representative sample for Italian context. In particular, this paper examines the use of scientific journals by humanists of Areas 10 (antiquities, philology, literary studies, art history) and 11 (history, philosophy, pedagogy): in this case, Psychology and Sport Science have been excluded because they are considered “bibliometric” disciplines.

This study considers all research products classified as “journal articles” in Sapienza University institutional database (which systematically collects scientifically produced data of its scholars), published from 2004 to 2014. This time frame can be divided in two different parts: first one is the period assessed by VQR exercise (2004-2010), in the second one two sessions of national habilitation exam for academic career were conducted (2012-2013). Break point of this time frame is 2011, when VQR started and first journal ratings were introduced (after replaced by ASN new journal ratings).

Indeed, before research assessment exercises, publication patterns in the Humanities were not influenced by journal ratings/rankings. Each researcher usually choose journals not only for their esteems, but also for their local

circulation (e.g. articles about Umbrian History, Palaeography or Diplomatic can be published in the bulletin of the local historical institute, as *Deputazione di Storia patria per l'Umbria*). Some disciplines have strong connections with professions (e.g. LIS studies, but also Pedagogy) and other ones publish also in magazines of cultural association (e.g. art historians).

For this study, lists of all journals in which researchers of Sapienza University published in the last ten years have been drawn up and they have been compared with current “Class A journals” lists, in order to prove if there has been a confluence towards a “core” set of journals and some changes in publication patterns.

Scientific and Class A journals lists are drawn up by one panel of four full professors for each scientific Area. Starting from journal lists where researchers publish, they had removed all journals that are not identified as scientific by each scientific community, then they evaluated existence of a scientific and editorial committees, size and length of articles, scientific nature of journals. Class A journals lists are drawn up starting from journal ratings of VQR exercise and from other existing international rating (ANVUR, 2012).

3. Early analysis results

This paragraph shows results of a preliminary study on these data. Fig. 1-4 (see below) show percentage of the main five output categories (Monographs, Book chapters, Journal articles, Proceedings, Edited books) in both areas, for each time frame. All pie charts show that journal article is not the main output (between 28% and 34%) and that ‘books’ (monographs and book chapters) always have the leading position (between 48% and 52%). Number of total publications are halved in the second time frame, both in Area 10 (from 6.221 to 3.722) and in Area 11 (from 4.068 to 2.531), but the first period is twice as much the second.

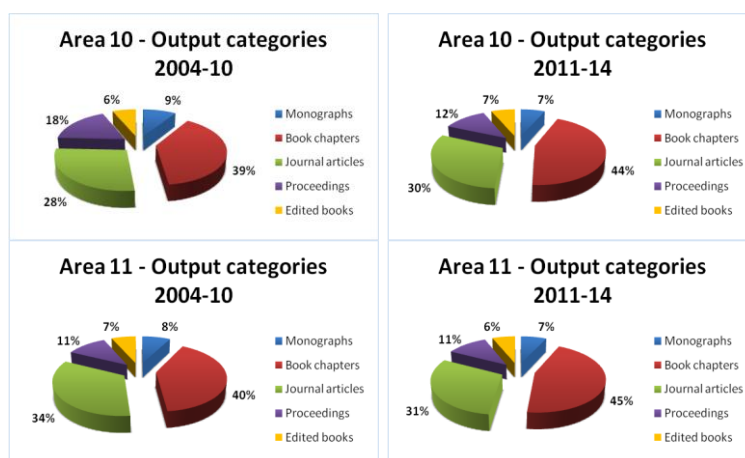


Fig. 1-4: Percentage of total publications, journal articles cover around 30%

For journals there are three categories: “Class A” journals are recognized as the top ones by each scientific community, then there are “scientific” journals and “non scientific” journals. In general, number of journals are decreasing in both areas: from 656 to 556 (Area 10) and from 490 to 370 (Area 11). In Area 10, Class A journals are slightly decreased (from 42% to 40%), but non scientific ones are nearly doubled (from 11% to 19%). In Area 11, Class A journals are increased (from 21% to 25%) and non scientific journals too (from 20% to 23%). Tab 1-2 show below percentage of each category in both areas.

A10 2004-2010	No.	%	A10 2011-2014	No.	%
Class A journals	276	42%	Class A journals	221	40%
Scientific journals	310	47%	Scientific journals	230	41%
Non scient. journals	70	11%	Non scient. journals	105	19%
TOT JOURNALS	656	100%	TOT JOURNALS	556	100%

Tab. 1: Area 10 percentage of journal titles according to ASN journal rating

A11 2004-2010	No.	%	A11 2011-2014	No.	%
Class A journals	103	21%	Class A journals	93	25%
Scientific journals	290	59%	Scientific journals	193	52%
Non scient. journals	97	20%	Non scient. journals	84	23%
TOT JOURNALS	490	100%	TOT JOURNALS	370	100%

Tab. 2: Area 11 percentage of journal titles according to ASN journal rating

Considering number of articles, in general we have an increasing percentage of articles published in non scientific journals in both areas (from 7% to 13% in Area 10 and from 14% to 16% in Area 11), at the expense of other categories. Focusing on the top 20 journals for number of articles of both areas in each time frame (Tab. 3-4), they include around 25-30% of total articles: there are 13 Class A journals in Area 10 (65%) and 9 in Area 11 (45%). In the top 5 journals for number of articles, in each area there are group of three journals always present during the consider time frame; in Area 10, the top 5 ones in 2011-2014 are only Class A journals.

Articles A10 2004-10	No.	%	Articles A10 2011-14	No.	%
Class A art.	918	54%	Class A art.	593	52%
Scientific art.	673	39%	Scientific art.	396	35%
Non scient. art.	120	7%	Non scient. art.	144	13%
TOT ARTICLES	1711	100%	TOT ARTICLES	1133	100%

TOP 20 JOURNAL	465	27%	TOP 20 JOURNAL	279	25%
TOP 5 JOURNAL	223	13%	TOP 5 JOURNAL	119	11%

Tab. 3: Area 10, allocation of journal articles according to ASN journal rating

Articles A11 2004-10	No.	%	Articles A11 2011-14	No.	%
Class A art.	470	34%	Class A art.	273	35%
Scientific art.	708	52%	Scientific art.	377	49%
Non scient. art.	193	14%	Non scient. art.	120	16%
TOT ARTICLES	1371	100%	TOT ARTICLES	770	100%
TOP 20 JOURNAL	406	30%	TOP 20 JOURNAL	236	31%
TOP 5 JOURNAL	141	10%	TOP 5 JOURNAL	84	11%

Tab. 4: Area 11, allocation of journal articles according to ASN journal rating

Analysing articles trends in the second time frame (2011-2014), in both areas there is an irregular trend and there is not an increasing percentage of Class A articles as expected. Actually, there is an increasing percentage of articles published in non scientific journals, as we can see for example in Area 10 (Fig. 5).

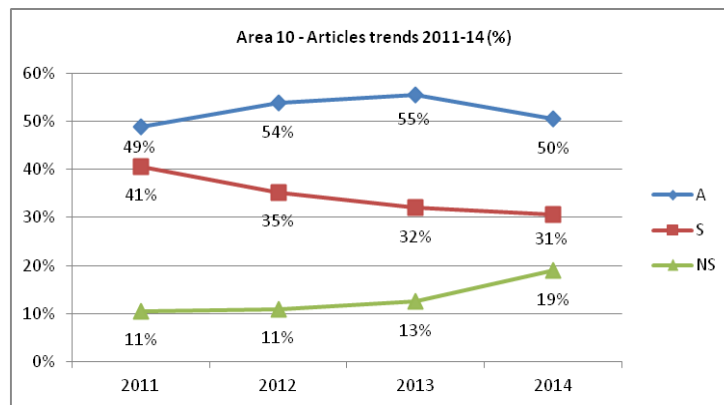


Fig. 5: Area 10, trend of articles in years 2011-2014

In the second time frame, there has been a very small, temporary, increase in percentage of Class A articles: it could be produce by ASN calls that pushed researchers to publish more than in the previous years, but this trend seems to stop very quickly.

4. Conclusions

This first analysis shows that there have not been transformations in publication behaviour of humanists after new research assessment exercises and habilitation exams. In fact, the use of journals identified as “non scientific” in journal ratings has been increased in the second time frame (2011-2014).

Possible transformations in progress are not visible now, but situation could change within few years, when research assessment exercises and habilitation system will be settled.

Since Italian classification of research areas is too wide and irregular, analyse publication trend in each disciplines would be essential. Keeping out research outputs that are not narrowly “journal articles” (e.g. reviews) from this data set would be essential too. Monitoring data of both next VQR exercise and new edition of habilitation exams will be necessary in order to studying much more deeply this phenomenon.

Strengthen and improve bibliometric analysis in SSH is one of the main purposes of ANVUR (Bonaccorsi, 2012) and it is important also in order to enhance peer-review process. However, it is absolutely necessary to do not forgive existing differences in research and publication practices between Hard Sciences and SSH for a more reliable evaluation.

References

- Abramo, G. and D’Angelo, C. A. (2011). Evaluating research: From informed peer review to bibliometrics, *Scientometrics*, Vol. 87, No. 3, 499 - 514.
- Abramo, G. and D’Angelo, C. A. (2015). The VQR, Italy’s Second National Research Assessment: Methodological Failures and Ranking Distortions, *Journal of the Association for Information Science and Technology*, 1 - 13.
- ANVUR (2012). *Relazione finale del Gruppo di lavoro Libri e riviste scientifiche - Area 11*. Access date 01.04.2015, available at http://www.anvur.org/attachments/article/254/Relazionefinale_GdLArea11.pdf
- Baccini, A. (2010). *Valutare la ricerca scientifica: uso e abuso degli indicatori bibliometrici*. il Mulino, Bologna.
- Bonaccorsi, A. (2012). *Potenzialità e limiti della analisi bibliometrica nelle aree umanistiche e sociali. Verso un programma di lavoro*. Access date 01.04.2015, available at http://www.anvur.org/attachments/article/44/valutazione_aree_umanistiche_e_sociali.pdf
- De Bellis, N. (2014). *Introduzione alla bibliometria*. AIB, Roma.
- East, J. W. (2006). Ranking Journals in the Humanities: An Australian Case Study, *Australian Academic & Research Libraries*, Vol. 37, No. 1, 3 - 16.
- Faggiolani, C. (2015). *La bibliometria*. Carocci, Roma.
- Faggiolani, C. and Solimine, G. (2012). La valutazione della ricerca, la bibliometria e l’albero di Bertoldo (The research evaluation, bibliometrics, and Bertoldo’s tree), *AIB Studi*, Vol. 52, No.1, 57 - 63.
- Faggiolani, C. and Solimine, G. (2014). The Evaluation of Research in the Humanities: A Comparative Analysis. *Information Policies in the Humanities*, ed. by C. Basili. Ceris-CNR, Rome, 83 - 94.
- Hertzal, D. H. (1987). History of the Development of Ideas in Bibliometrics. *Encyclopedia of Library and Information Sciences*, ed. by A. Kent, Vol. 42, No. 7. Marcel Dekker, New York, 144 - 219.

Hicks, D. (2004). The four literatures for social science. *Handbook of quantitative science and technology research*, ed. by H. Moed, W. Glanzel, U. Schmoch. Kluwer Academic publisher, Dordrecht, The Netherlands, 473 - 496.

Hicks, D. (2012). Performance-based university research funding systems, *Research Policy*, Vol. 41, No. 2, 251 - 261.

Jacso, P. (2005). As we may search: comparison of major features of the Web of science, Scopus and Google Scholar citation-based and citation-enhanced databases, *Current science*, Vol. 89, No. 9, 1537 - 1547, <<http://choo.fis.utoronto.ca/FIS/courses/LIS1325/Readings/jacso.pdf>>.

Lanzillo, L. (2014). Le riviste scientifiche nell'ambito della ricerca nelle scienze umane. *Information Policies in the Humanities*, ed. by C. Basili. Ceris-CNR, Roma, 121 - 150.

Meho, L. I., and Yang, K. (2007). Impact of data sources on citation counts and rankings of LIS faculty: Web of science versus Scopus and Google scholar, *Journal of the American Society for Information Science and Technology*, Vol. 58, No. 13, 2105 - 2125.

Nederhof, A. J. and Zwaan, R. A. (1991). Quality judgments of journals as indicators of research performance in the humanities and the social and behavioral sciences, *Journal of the American Society for Information Science*, Vol. 42, No. 5, 332 - 340.

Pontille, D. and Torny, D. (2010). The controversial policies of journal ratings: evaluating social sciences and humanities, *Research Evaluation*, Vol. 19, No. 5, 347 - 360.

Research Information Network (2009). *Communicating knowledge: how and why UK researchers publish and disseminate their findings*. Access date 01.04.2015 available at <http://www.rin.ac.uk/our-work/communicating-and-disseminating-research/communicating-knowledge-how-and-why-researchers-pu>

Shorley, D. and Jubb, M. (Eds.) (2013). *The future of Scholarly Communication*. Facet Publishing, London.

Turbanti, S. (2014). Navigare nel mare di Scopus, Web of science e Google scholar: l'avvio di una ricerca sulla vitalità delle discipline archivistiche e biblioteconomiche italiane (Navigating in Scopus, Web of science and Google scholar: a research on Italian LIS studies vitality), *AIB studi*, Vol. 54, No. 3/4, 213 - 225.