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Challenges and Problems for Research in Library and Information Science from a Gender Perspective

Abstract This chapter presents a personal account of the evolution and scope of research in the field of Library and Information Science from the perspective of Women's and Gender Studies drawn from an interdisciplinary academic career combining both areas. The first section deals with the challenges and problems researchers face in the field of Library and Information Science, taking into account the proportion of women (female university lecturers), their scientific output (published papers) and the impact of their studies (citations). The second section focuses on the challenges and problems in higher education and analyses the impact of feminist and gender awareness in university teaching in the degree of Library and Information Science.

Keywords : Library and Information Science, heteropatriarchal production of knowledge, challenges and problems in higher education, women's scientific output

Introduction

These pages are intended as a reflection on some issues I have confronted over 20 years devoted to the academic career as both a teacher and researcher bringing a gender perspective to bear on the field of Library and Information Sciences (L&IS). I have also had extensive experience as a member of the Instituto Universitario de Investigación de Estudios de las Mujeres y de Género (Women's and Gender Studies Institute) of the University of Granada since 1989, first as assistant and postgraduate student and then as researcher. I am ex-Director of the Women's and Gender Studies Institute and have been a lecturer in the Erasmus Mundus Master's Degree in Women's and Gender Studies, GEMMA, since its inception.

My academic career at the University of Granada combines a double specialisation in Women's and Gender Studies and in L&IS, both of them interdisciplinary and even transdisciplinary. This combination has made me meet challenges and face difficulties in order to develop L&IS from a gender perspective. In Spanish universities, both areas emerged parallelly. Women's Studies began in the 1980s against the backdrop of the feminist movement and demands during Spain's political transition to democracy. The university degree in L&IS was first offered during the same decade. My academic work has been oriented to integrate a gender approach into Information Studies, a particularly difficult task at the beginning since this methodology was not accepted in scientific research in the field at the time. Progressively and fostered by feminist activity within the academic arena, new research policies were implemented in Europe recognising the contribution of a gender perspective to interdisciplinary study and thinking.

Personal challenges

The first challenge in my academic career was writing my PhD dissertation. I studied the presence and scientific output of the female lecturers at the University of Granada since the democratic transition using a bibliometric methodology. I did my viva voce at the Department of Information and communication in 2002,[1] the same year when I became a mother. This thesis was the first in the area of bibliometrics to apply gender indicators and received a unanimous Summa cum laude from the panel. Despite the scepticism of some colleagues who questioned the importance of my

1 Muñoz, Ana María. *Producción científica de las profesoras en la Universidad de Granada durante los años 1975–1990*. Doctoral dissertation, University of Granada. Department of Library and Information Sciences. PhD viva, 13 September 2002. Doctorate programme: Estudios de las Mujeres. Director: Dr. Isabel de Torres Ramírez. Published in the *Feminae* book series as Muñoz Muñoz, Ana M. 2006, *Presencia y producción científica de las profesoras en la Universidad de Granada (1975–1990)*. Granada: Editorial Universidad de Granada. ISBN: 84-338-3945-4.

research, in 2005, an article derived from my dissertation[2] was accepted for publication in *Scientometric* (Springer, The Netherlands), one of the top international journals in bibliometrics placed in the first quartile in the Journal Citation Report. Since then all my research has focused on L&IS from a gender perspective.

Becoming a permanent lecturer was a fresh challenge. With a research project incorporating a feminist perspective to documentation methodology, I argued that Information Studies can also reveal inequalities and promote the acquisition of knowledge to improve the quality of life and contribute to economic and social progress.

Gradually I met other usual challenges in the academic career. I obtained recognition for three 6-year research periods (1999–2005/2006–2011/2012–2017), from the National Commission for the Evaluation of Research Activity (CNEAI), each of them with five publications in Information Science with a gender perspective. Such recognition, both academic and economic, entitles university lecturers to become permanent staff and apply for professorships, both requirements to supervise doctoral dissertations and teach in doctorate and top-quality master's programmes. In practice, 6-year research periods are used to rank university lecturers according to merit-based research and for academic promotion. Spanish legislation has introduced the concept of "sexenio vivo" (active 6-year research period) by which a lecturer whose most recent 6-year research period was recognised can apply for a reduction of teaching dedication hours. As a result, this indicator assesses and also promotes research by reducing the number of courses taught.

The positive evaluation of 6-year periods can be an adequate method to verify the presence of women in the group of top researchers if we look at the proportion of women with a particular number of 6-year periods. A clear tendency is observed: the more the 6-year periods, the fewer the women in the category. Forty percent of university lecturers with one recognised 6-year research period are women. That proportion is reduced to 5 per cent in the group of professors with six 6-year research periods. It is relevant to say that the group of lecturers who have never submitted a 6-year period for evaluation is evenly distributed between men and women.

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2 Muñoz Muñoz, Ana M. 2005, The Scholarly Transition of Female Academics at the University of Granada (1975–1990). *Scientometrics*, 64(3): 225–250. ISSN: 0138-9130 (Paper) 1588–2861 (Online). DOI: 10.1007/s11192-005-0254-7.

Analysed by fields of knowledge, female lecturers never represent over 50 per cent of the researchers in any group, with the exception of lecturers with one and three 6-year research periods in L&IS, 58 per cent of whom are women (Torres-Salinas et al. 2011).

The next challenge was to obtain a positive evaluation to be appointed chair professor following the same research line. In Spain, only 20 in every 100 chair professors are women, and one of the requirements is having three 6-year research periods.

Doing research: Challenges and problems

Research done in universities from a gender perspective aims at revealing the causes of inequality, its consequences and possible ways to combat it. This implies questioning heteropatriarchal ways in the production of knowledge and the associated academic practices to carry out inquiries from different feminist epistemological approaches. Academic feminism has grown at universities as a result of the confluence of two experiences: that of female lecturers who participated in the feminist movement and then pushed forward Women's Studies in universities and that of higher education teachers and researchers who had not taken part in the feminist movement but were convinced of the potential of feminist theory and ideals and incorporated them to their academic activities.

Spain follows the European Union (EU) model in equality policies in general, but some specific guiding principles and regulations have been developed for women in science:

- Adding a gender perspective to the priority lines of action in the Estrategia de Innovación de Andalucía 2020 (RIS3) (Andalusian Innovation Strategy) and to the Plan Andaluz de Investigación, Desarrollo e Innovación (PAIDI 2020) (Andalusian Plan for Research, Development and Innovation (PAIDI)). The PAIDI specifies as part of its goals that "the regulatory implementation of Actions included in the current PAIDI 2020 will push forward the integration of a gender perspective, implementing measures to increase the presence and leadership of women in R&D projects and groups (...) facilitating

gender-related research, and ensuring that the evaluation processes of scientific research are sensitive to gender issues".

- Incorporating Spain to an international line of research which is producing fresh insights in both Gender and Information Studies. This complies with national and international recommendations to incorporate a gender perspective as part of the goals of the Estrategia Española de Ciencia y Tecnología y el Horizonte 2020 (Spain's Strategy of Action in Science and Technology and the 2020 Horizon) and follows EU recommendations to prioritise Gender Studies.
- The Science, Technology and Innovation Act 14/ 1 June 2011 includes among its general objectives "promoting the integration of a gender perspective as a multidisciplinary approach to science, technology and innovation" (art. 2, k) and makes an additional provision (No 13) for the implementation of a gender perspective stating that, "Spain's Strategy of Action in Science and Technology will promote the integration of a gender perspective as a transversal category in research and technology (...) and will also promote Women's and Gender studies, and specific measures to foster and give recognition to the presence of women in research teams".

However, a modification is needed of art. 12.4 of the Royal Decree 1393/29 October 2007, regulating the organisation and planning of official university education in order to add a new field of knowledge, that is "Women's and Gender Studies". This modification is necessary so that specialisation in this area is made possible in Bachelor's degree courses and postgraduate courses. The inclusion of Women's and Gender Studies in UNESCO's International Standard Classification of Education (ISCED) would also be advisable since this classification is used for research projects and doctoral dissertations.

In the Spanish higher education system, L&IS is integrated into the Social Sciences. We can analyse the specific situation of women's academics in this field of knowledge considering their proportion (number of female university lecturers), their scientific output (number of published papers) and the impact of their work (citations).

According to the Spanish National Institute of Statistics (INE), the overall proportion of male and female teachers and researchers in the area of Social and Legal Sciences is evenly distributed. In the university departments of L&IS and Psychology, the proportion of female lecturers is above 50 per cent (Torres-Salinas et al. 2011).

Nevertheless, if gender indicators are established to measure the scientific production of women's academics, an unequal access to resources is detected requiring measures to ensure equality of opportunity in research. Bibliometric analysis including gender indicators show key aspects of inequalities and can be used to make recommendations and provide guidance with regard to research plans and policies. As pointed out by Schiebinger (1993), Prpic (1996), Valian (1999), Kaplan et al. (1996) and Tower et al. (2007), women publish fewer scientific articles than men. This reduced output is due to sociocultural factors, including their share of family responsibilities (Kyvik and Teigen 1996, Xie and Shauman 1999, Rothausen-Vange et al. 2005), and also due to factors derived from the academic environment, among which Webster (2001) mentions that women are more dedicated to teaching than men. But establishing determining factors for these gender differences in scientific production is still a puzzle to be solved (Cole and Zuckerman 1984).

The inequality in research output will not be balanced simply with more publications since the number of citations of articles by women scholars is smaller as compared to their male counterparts. The scientific production of female researchers in L&IS is smaller than that of men, although their rate of citation is higher. These figures are in line with previous analysis, and some studies prove that work published by female researchers gets more citations than that of their male colleagues (Zuckerman 1987, Sonnert and Holton 1996, Nilsson 1997, Schiebinger 1999, Feller 2004, Tower et al. 2007, Prpic et al. 2009) and indicate that a lower rate of publication can be associated to a higher quality in the output (Long 1992).

Generally, in Spain, women are underrepresented among scientific elites, considering both number of publications and citations, and the proportion of women with the highest number of 6-year research periods, because only 20 per cent of women academics have three or more. This can be partly explained because women start their university career later than men, while indicators such as number of publications, citations and especially 6-year periods are dependent on the duration of academic life. Women gained a considerably greater access to higher education after Spain's transition to democracy in 1975. So with shorter academic careers than men, women simply have not had the time to reach the top positions in research rankings or a significant number of 6-year research periods.

Gender roles also produce inequality of opportunity in publishing since an insufficient representation in positions of power and leadership makes it harder for women to publish and get citations from their colleagues. Thus, a vicious circle is kept in motion affecting the prestige and visibility of female researchers.

The main shortcomings detected in studies of L&IS from a gender perspective are the following:

- Author profiling due to a lack of standardisation in some national and international databases
- Identification of the home institution of scholars, different names for the same institution and spelling and order mistakes
- Authority control, since it is often the case that the first surname appears in second or third place in the name

As a result, many research studies can only take into account short populations (universities, institutions and research centres) to identify the university staff working in a field of knowledge.

In order to overcome the said shortcoming, it is advisable to cite identifying authors by name and surname, both in in-text citations and bibliographic references. A citation style that identifies the gender of the author allows proper recognition and recompense in science (Merton 1968) and will contribute to the reduction of gender inequality in science. It will prevent the misleading prejudice that the author is male, inhibiting the so-called Matilda effect (Rossiter 1993), which identifies the situation in which the work by women academics receives less credit and recognition than it would deserve if it was evaluated objectively and also pays tribute to female pioneers.

It is therefore essential that the appropriate body in every country should create a standardised database with first name and surname of researchers in a gender-disaggregated format. Citation styles elaborated by editorial boards of journals and associations should also be modified to allow full first names instead of initials.

In addition, the studies of scientific production do not reflect the reality of publication in the field of Arts and Humanities, Legal Sciences and partly of Social Sciences, including the area of L&IS, since their usual means to disseminate the results of research are books and book chapters,

while the databases employed to conduct studies on scientific output contain mostly journal articles.

Most bibliographic databases were designed to retrieve information and bibliographic search of articles in scientific journals. Web of Science and Scopus are exceptional in that they were created to find author citations and developed tools to facilitate bibliometric studies. The international coverage and the range of fields of knowledge included in both databases give a fairly accurate representation of the areas of Science and Technology, but in comparison Arts and Humanities are underrepresented due to the existence of a smaller number of journals in the field derived from the extended practice of publishing books or book chapters.

All these factors constrain the studies of scientific production and lead to bias and underrepresentation of women researchers. Even more, if one takes into account that the proportion of female academics in the areas of Humanities and Social Sciences (L&IS is between the two) is higher than in the areas of Science and Technology.

Higher education: Challenges and problems

The L&IS curriculum does not include any gender education subjects, but some postgraduate programmes in Women's Studies, such as the GEMMA Erasmus Mundus Master Degree, include gender-related courses.

A small-scale study of the degree in L&IS at the University of Granada (Muñoz-Muñoz 2015) and an examination of course contents shows the impact of the lecturers' knowledge about feminism and gender on the teaching practice. Results indicate a low permeability of Women's and Gender Studies into L&IS teaching and scarce attention to gender-related issues. Undergraduates seem interested in inequality and discrimination mainly because of media debates about equality policies rather than knowledge about research studies. Despite the students' unawareness of the causes of inequalities and feminist theories, they show interest in learning about them, and a high proportion of undergraduates would welcome courses with a gender perspective. At the same time, students tend to deny the existence of inequality between men and women. For a majority of them, gender equality has been achieved and their ideas of feminism

are based on stereotypes confronting feminism and male chauvinism, ignoring particular stances on equality and difference. All this shows that students lack an informed understanding of relevant issues about feminism and form their own opinions based on beliefs, prejudices and value judgements.

A similar lack of knowledge is found among lecturers regarding the contributions of Feminism and Women's and Gender Studies to L&IS based on the bibliographic references of their teaching programmes. Women's empowerment and gender-related topics are hardly acknowledged, and the contributions within the area of L&IS rely on the personal interest of lecturers in interdisciplinarity, as is my case. For most lecturers, including a gender analysis in undergraduate courses in L&IS seems to be a matter of conscience and awareness but alien to science. At best, some academics accept such analysis as critical knowledge but do not acknowledge its scientific value. It is considered as an opinion-based approach so that building awareness and understanding is enough.

Knowledge produced by research in gender perspective in L&IS tends to be considered non-scientific according to a view of science as objective knowledge based on value-neutrality. Instead, it is regarded as something ideological, subjective and personal. Due to the media coverage of cases of sexual harassment and gender violence, students often demand that such topics be dealt with during lessons, and interdisciplinary debates arise. As a result, lecturers are in favour of introducing such content, but a majority consider that no previous training is required, and in any case this is a secondary issue since we are very close to real equality in Western countries. The need to offer courses on gender equality is largely a demand of lecturers with proper training in feminist studies and theories. But overall, lecturers resist change and generally think that the basis for these studies is ideological rather than scientific.

In consequence, I consider it necessary to correct misconceptions and prejudices related to women's empowerment, gender, and equality and advocate their status as a scientific approach which has produced valuable knowledge for diverse areas of study. The difficulties to solve these problems effectively are numerous and complex, but action needs to be taken to modify deeply held beliefs about science and to overcome resistance to change and innovation. Such difficulties call for measures such as the ones put forward here so that public institutions legitimise the knowledge produced by Feminist, Gender and Women's Studies: the recognition

of a new field in UNESCO's International Standard Classification of Education, updated gender training for lecturers in their areas of expertise and an offer of obligatory courses in gender analysis in all degrees. The lack of training of lecturers in this area hampers its acceptance as scientific knowledge and the inclusion of elective courses in the new curricula does not favour the general recognition of its significance because its impact is reduced to lecturers and students who show an interest.

Any Scientific output which creates and perpetuates a biased androcentric view, ignoring gender inequalities, maintains discrimination and establishes a resistance derived from a lack of training among academics. Then teaching disseminates such view among future professionals. Lecturers involved in gender education should have the appropriate training and here the universities' equal opportunities units have a key role.

All in all, many challenges and problems still stand in the way. Thus it is necessary to adopt research policies, plan actions and design mechanisms to cope with the problems that feminist researchers in L&IS currently face.

References

Cole, Jonathan R. and Zuckerman, Harriet. 1984. "The Productivity Puzzle: Persistence and Change in Patterns of Publication of Men and Women Scientists." In M. Steinkamp and M. Maehr (eds.), *Advances in Motivation and Achievement*, vol. 2. Greenwich CT: Jai Press, 217–258.

Feller, Irwin. 2004. "Measurement of Scientific Performance and Gender Bias." In *Gender and Excellence in the Making*. Luxembourg: Office for Official Publications of the European Communities, 35–40.

Kaplan, Sherrie H., Sullivan, Lisa M., Dukes, Kimberly A., Phillips, Carol F., Kelch, Robert P., and Schaller, Jane G. 1996. "Sex Differences in Academic Advancement: Results of a National Study of Pediatricians." *The New England Journal of Medicine* 335(17): 1282–1290.

Kyvik, Svein and Teigen, Mari. 1996. "Child Care, Research Collaboration, and Gender Differences in Scientific Productivity." *Science, Technology & Human Values* 21(1): 54–71.

Long, J. Scott. 1992. "Measures of Sex Differences in Scientific Productivity." *Social Forces* 71(1): 159–178.

Merton, Robert K. 1968. *Social Theory and Social Structure.* New York: Free Press.

Muñoz-Muñoz, Ana M. "Los estudios de las mujeres en el área de la biblioteconomía y documentación". [Unpublisehd study]. University of Granada.

Nilsson, Jan. 1997. "Utvärdering av de vetenskapliga rapporterna (Evaluation of Scientific Reports)." *MFR Informerar (Information from the Swedish Medical Research Council)* 3: 8–9.

Prpic, Katarina. 1996. "Scientific Fields and Eminent Scientists' Productivity Patterns and Factors." *Scientometrics* 37(3): 445–471.

Prpic, Katarina, Suljok, Adrijana, and Petrovic, Nikola. 2009. "Gender Differences in the Research Productivity of Natural and Social Scientists." In Katarina Prpic, Luisa Oliveira, and Sven Hemlin (eds.), *Women in Science and Technology.* Zagreb: Institute for Social Research Zagreb.

Rossiter, Margaret W. 1993. "The Matthew Matilda Effect in Science." *Social Studies of Science* 23(2): 325–341.

Rothausen-Vange, Teresa J., Marler, Janet H., and Wright, Patrick. M. 2005. "Research Productivity, Gender, Family, and Tenure in Organization Science Careers." *Sex Roles* 53(9–10): 727–738.

Schiebinger, Londa. 1993. *Nature's Body: Gender in the Making of Modern Science.* Boston: Beacon Press.

Schiebinger, Londa. 1999. *Has Feminism Changed Science?.* Cambridge: Harvard University Press.

Sonnert, Gerhard and Holton, Gerald. 1996. "Career Patterns of Women and Men in the Sciences." *American Scientist* 84(1): 63–71.

Torres-Salinas, Daniel, Muñoz-Muñoz, Ana M., and Jiménez-Contreras, Evaristo. 2011. "Análisis bibliométrico de la situación de las mujeres investigadoras de Ciencias Sociales y Jurídicas en España." *Revista Española de Documentación Científica* 34(1): 11–25.

Tower, Greg, Plummer, Julie, and Ridgewell, Brenda. 2007. "A Multidisciplinary Study of Gender-Based Research Productivity in the World's Best Journals." *Journal of Diversity Management* 2(4): 23–32.

Valian, Virginia. 1999. *Why So Slow?. The Advancement of Women.* Cambridge, MA: MIT Press.

Webster, Berenika M. 2001. "Polish Women in Science: A Bibliometric Analysis of Polish Science and Its Publications. 1980–1999." *Research Evaluation* 10(3): 185–194.

Xie, Yu and Shauman, Kimberlee A. 1999. "Commentary: Gender Differences in Research Productivity." *The Scientist* 13(19): 10.

Zuckerman, Harriet. 1987. "Persistence and Change in the Careers of Men and Women Scientists and Engineers: A Review of Current Research." In L. S. Dixon (ed.), *Women: Their Under-Representation and Career Differentials in Science and Engineering*. Washington: National Technical Information Service, 123–156.

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