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Melero, R.^{1,*}, Rodriguez-Gairín, J.M.², Abad-García, F.³ and Abadal, E.²

¹Instituto de Agroquímica y Tecnología de Alimentos-CSIC. Avda Profesor Escardino 7, 46980 Paterna, Valencia, Spain.

Tel: +34 963 900 022; fax: +34 963 636 301. E-mail: rmelero@iata.csic.es ²Universitat de Barcelona, Facultat de Biblioteconomia i Documentació. Melcior de Palau, 140, 08014 Barcelona, Spain.

Tel: +34 934 035 773; fax: +34 934 035 772. E-mails: abadal@ub.edu; rodriguez.gairin@ub.edu

³Universidad de Valencia, Facultad de Medicina y Odontología, Departamento de Historia de la Ciencia y Documentación, Avda. Blasco Ibáñez 15, 46010 Valencia, Spain.

Tel: +34 963 864 164; fax: +34 963 613 975. E-mail: abad@uv.es

Abstract

Open-access literature is digital, online, free of charge, and free of most copyright and licensing restriction. The lack of clarity of publisher permissions for archiving in open access repositories affects the adoption of the green OA route. The paper explores editorial policies and self-archiving conditions in 1615 Spanish scholarly journals. 48% are published by university and research institutions, 25% by associations/societies, and 17% by commercial publishers; Social Sciences and Humanities (SSH) accounted for 67% of the journals (44.5% and 22.5%, respectively) followed by health sciences (20%); 71% offered gratis access immediately after publication, and 11% after an embargo; 31% provided any mention about author rights. Self-archiving was specifically allowed by 65% of the journals; 52% were classified as ROMEOblue, 12% as green and 15% as white, and 21% could not be classified; 21% used some type of CC licenses, mostly in SSH.

INTRODUCTION

The Budapest Open Access Initiative (BOAI, 2002)¹ defines open access thus:

By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

As the BOAI indicates, having open access to scientific and scholarly outputs is closely tied to the issue of permissions required of both humans and machines to reuse scholarly works; not only to download and read them, but also to be integrated into other, interoperable information ecosystems comprising larger information resources (Andrew et al., 2011). Beyond fair use, the use of papers published in scholarly journals is subject to the permissions granted by the copyright holders, for example, for archiving in open access repositories, for commercial use or for any other purposes. Therefore, it is essential for journals to define their editorial policies on exploitation rights and economic rights, whether or not these are restrictive.

According to Spanish intellectual property law (Government of Spain, 2006, harmonized with European Directive 2001/29/EC), author rights include moral and economic rights. Moral rights are not transferable and include the attribution of authorship and the integrity of the work; economic rights include copyright (right to make copies and derivative works, distribution, display and performance). Economic rights are transferable in whole or in part, and have spatial and temporal coverage. In the case of scholarly publishing, when the copyright assignment is not exclusive, authors and publishers have to negotiate the terms upon which either party uses the work; when copyright is exclusively transferred, the publisher is the sole owner and decides how authors and readers can use the papers. This does not mean that the publisher

can impose restrictions per se. In fact there are some journals that distribute their papers under publication licenses that allow their reuse under certain conditions, such as Creative Commons (CC) licenses². In brief, a journal's copyright policy identifies and defines the copyright owner and author and publisher rights, respectively.

A license for publication can also be created following a model, like the SURF Foundation license⁴ (2006), which specifies the rights reserved by authors and publishers for optimal access, including the rights for educational or research use, and for dissemination. Authors and/or publishers can create their own license, but every case should answer some basic questions. First, which versions of the work are reusable? (The author pre-print, the author post-print or the version of record?). Second, when are versions reusable? (Immediately after acceptance or after publication? After an embargo?) Third, what purposes do versions serve? (Academic and research purposes? Commercial purposes?) And fourth, is the creation of derivative works allowed? (And if it is, should share-alike involve the derivative work?). These questions can help authors or publishers create a license to publish with the basic provisions to reuse the work without permission of the copyright holder. In this sense, the SURF-hosted Copyright Toolbox⁵ provides sample wording to define these provisions about the further use of works and their meaning.

Since 2006 the open access movement in Spain has steadily gained momentum resulting in an increase of institutional open access repositories, the adoption of new open access policies, launch of new OA journals and conversion of older ones to OA, among other OA initiatives (Abadal et al., 2011). Some of those journals have also adopted an increasing number of open licenses. However, the terminology used in editorial policies to describe rights issues is still inadequate, as indicated in previous studies on information science journals (Coleman, 2007) and on several social sciences disciplines (Antelman, 2006). This lack of clarity in publishers policies leaves authors concerned that they might infringe copyright, and that inhibits depositing in open access repositories (Fry et al, 2009). In addition, policies can change over time, and this means that librarians and repositories managers have to contact publishers to ask permission to deposit material (Ramirez and Hanlon, 2011). Tools like SHERPA/ROMEO can assist copyright clearance. However up to 2011 very few Spanish journals were recorded in the SHERPA/ROMEO

database of publisher policies on copyrights and permissions for self-archiving. This was one reason why the Spanish research group *Acceso Abierto a la Ciencia*⁷ ("Open Access to Science") started to map Spanish scholarly journals in terms of author rights and permissions for self-archiving works in institutional and subject repositories and on personal web pages. This information has been collected in a database attached to the portal DULCINEA⁸, which also classifies journals using SHERPA/RoMEO color taxonomy. While RoMEO was the inspiration for the directory, DULCINEA has provided the groundwork for a number of other directories: the directory of French scholarly journals Héloïse⁹ (Dillaerts and Chartron, 2013), the Brazilian portal Diadorim¹⁰, and the Portuguese project Blimunda¹¹ (all of which also share RoMEO taxonomy).

Preliminary results (Melero et al., 2009; Melero et al, 2011) provided very useful information to go on with a further systematic study regarding copyright terms in the case of Spanish scholarly journals. This study sought to analyse editorial policies on copyright and permissions for self-archiving in open access repositories by discipline, publisher, use of open licenses, permissions, version allowed to deposit and online access.

METHODOLOGY

The study examined the Spanish scholarly journals that are active and visible in the Internet, at least to the level of list of contents. *Spanish* refers to journals created in Spain, regardless of publisher origin (Elsevier, Springer, etc.), *scholarly* refers to journals that published any smaller or larger number of peer-reviewed original research articles per volume, and *active* refers to journals that were being published at the time of the study (note that whenever a delay in publication was detected, the editors were contacted to confirm that their journal was still active); finally, *visible* means either that the journal's contents were available online (regardless of the type of access required) or at least the journal had a webpage with list of contents, contact persons and general information about the journal.

The first list of journals titles was compiled using the CSIC databases¹³, Dialnet¹⁴, the directory and catalog Latindex¹⁵ and the directory Ulrichsweb¹⁶. After title lists were compared and duplicates had been removed, the list of

2411 journals was further reduced to 1628 after a thorough check on journal adequacy and status (see the criteria above) because part of them (n=783) were inactive, or did not correspond to a serial title or they were not peer-reviewed. New titles have since been added and the number of journals varied according to the source (the CSIC databases and the repository Dialnet each list approximately 1900 titles, Latindex lists approximately 1700 and Ulrichsweb provides over 2000); overall, however, we estimate the number of Spanish scholarly journals active and visible on the Internet might between 1700 and 1800. The sample used in the study comprised 1615 titles. The study covers journals analyzed until September 2013, which according to this estimate represents approximately 90% of existing active Spanish journals. Data collection was conducted using an online survey sent to journal editors and was then continued using a manual search on the Internet and direct enquiries to editors and publishers by email or telephone.

The DULCINEA database

Journal data were collected in a database, browsable through the DULCINEA portal and comprising the following metadata:

- Identification details and contact person. The identification details included title, ISSN, e-ISSN, type of publisher, URL, and discipline, while contact issues included the person's name, email address and phone. Seven publisher types were considered: university and research institutions; commercial and private publishers; professional and learned associations and societies; museums; foundations; royal academies; and governmental bodies. Eight disciplines were considered: Social Sciences; Humanities; Health Sciences; Life Sciences; Fine and Performing Arts; Engineering; Experimental Sciences; and Mathematics and Physical Sciences.
- Type of online access. The types considered were: restricted to subscribers; gratis; and gratis after an embargo period expressed in months.
- Information regarding mention or description of rights, type of CC license used [if any], permission for self-archiving and version allowed to deposit.

The versions considered were: the author pre-print, the author post-print and the version of record.

Finally, journals were classified according to RoMEO colors (Jenkings et al., 2007) depending on the permissions for self-archiving in an institutional or subject repository or in personal web pages, where 'green' means that both the pre-print and post-print could be archived, 'blue' indicates that the post-print could be archived, 'yellow' means that the pre-print could be archived, and white indicates that archiving was not formally supported.

Statistical Analysis

A multiple correspondence analysis was performed to detect underlying relationships or associations within journals using the following variables and their modalities: discipline, publisher, rights statement, online access, permission for self-archiving, RoMEO color, and use of CC licenses.

RESULTS AND DISCUSSION

Journal profile

Discipline and publisher

As Table 1 shows, journals publishing in the two disciplines Social Sciences and Humanities together accounted for 67% of the journals (44.5% and 22.5%, respectively), followed by Health Sciences, which accounted for 20%. Social sciences and humanities journals were published mostly by universities and research institutions (63%) while health sciences journals were mainly produced and distributed by private and commercial publishers (47%) followed by professional associations and societies (35%).

Insert Table 1 here

The fact that most journals in health sciences were published by commercial companies can be attributed in part to Elsevier's acquisition in 2005 of Doyma, the former leading Spanish publisher of medical journals. Elsevier has since then added new titles besides Doyma's portfolio so that it now covers nearly

half of all Spanish journals in this discipline, most of which were already high ranked in Thomson Reuters ISI Journal Citation Reports. The main reason for the predominance of journals in Social Sciences and Humanities is that faculty and researchers in those disciplines usually publish in their own language, therefore Spanish journals are a good venue to submit their works, especially to those which have already a recognised international prestige. Furthermore, and in contrast to the medical, experimental and life sciences (where distribution channels are through the well-known journals), SSHH researchers have difficulties in finding a place for their publications because of the difference in number of indexed journals used for research evaluation exercises frames. Also in recent years a relatively large number of social sciences and humanities journals have been included in both Scopus and ISI databases. Data for 2011 indicated that Spanish publications indexed by Thomson Reuters-ISI had experienced a growth rate of 6%, putting Spain in the tenth position in a list of countries that included Brazil, the UK, Japan and Sweden (Fecyt 2011): in 2008, only 16 (30%) of the total of 53 Spanish journals were social science publications, while in 2011 they were 54 (41%) of a total of 132.

Publisher and online access

Table 2 shows the type of journal online access (gratis, gratis after an embargo or restricted to subscribers) granted by different type of publisher types: In the sample, 71% of all the journals were available free of economic barriers (gratis) and if we add those journals which are gratis after an embargo, this results in 82%, mostly published by universities and/or and research institutions.

Insert table 2 here

Embargo periods were generally between three to twelve months, as occurs in other journals (HighWire Press¹⁷), but could occasionally be of 24, 36 or 48 months. The online content of journals published by commercial publishers was generally restricted to subscribers, although some journals published by Elsevier but owned by a professional association or learned society offered unrestricted online access (see Table 3). A number of Spanish journals published by Elsevier are also distributed through the portal SciELO Spain with

an embargo on most recent issues. These included *Clínica y Salud, Gaceta Sanitaria, Revista Andaluza de Medicina del Deporte, Revista de Psicologia del Trabajo y de las Organizaciones* and *Revista Española de Cirugía Oral y Maxilofacial*.

Insert table 3 here

Author rights and permissions for self-archiving

The specification of copyright terms and permissions for self-archiving has not been widely practised in scholarly publishing, as Gadd et al. (2003) and Coleman (2007) detected during the analysis of scholarly publisher's copyright agreements. In fact, a high percentage of the journals in our study (31%) did not mention any of the terms commonly used to describe copyright. At the same time, however, when journal editors or publishers were directly consulted about author rights and permissions for self-archiving materials, their responses were in general, positive and permissions were granted (see Table 4).

Insert table 4 here

Direct contact with editors also contributed to widespread good practices on how to choose publication licenses and define author rights (Melero, 2010).

For the location of the copyright or exploitation rights description, we used home web pages, instructions to authors and files accessed through hyperlinks. Commercial and private were the types of publisher best to define authors rights, followed by universities and research institutions (Figure 1).

Insert figure 1 here

Social Sciences and Health Sciences were the two disciplines in which copyright terms were most clearly located and defined (Figure 2).

Insert figure 2 here

Because of its specific tabs for copyright notice and open access policies, the open-source software Open Journal Systems (OJS) has contributed to defining and locating copyright policies more easily. In our sample, 210 journals used OJS, and of those, 53% were social science journals and 21% were humanities journals, thus providing figures that were slightly higher than

those obtained previously by a survey among journals created with OJS (Edgar and Willinsky, 2010). In Spain, the universities Universitat de Barcelona, Universidad Carlos III de Madrid, Universidad Complutense de Madrid, Universidad de Granada, Universidad de Murcia, Universitat Oberta de Catalunya, Universidad Pablo de Olavide, and Universitat Politècnica de València have all adopted OJS software to create and manage their scholarly journals. Note that OJS offers the advantage that it is OAI-PMH compliant¹⁸ and can be harvested by an OAI-PMH service provider. It also complies with the SWORD protocol, which allows file transfers from the journal to an open access repository created with DSpace or Fedora.

The study also considered the type of access regarding specification of copyright issues (see Figure 3). Among the journals whose contents were restricted to subscribers (N= 285), 62% presented no description of copyright, and many were published by Elsevier¹⁹ and Springer²⁰, whose policies are the same for journals from other countries. In journals with free (gratis) access and with free access after an embargo, the mention or description of author rights terms appeared in 72% and 57% of the cases, respectively.

Insert figure 3 here

Permissions for self-archiving

Sixty four percent of the journals allowed self-archiving, 15% did not allow self-archiving or deposit, and for the remaining 21% no information was available. The publishers that contributed most to the number of journals allowing self-archiving were universities and research institutions and other public bodies such as museums (see Figure 4).

Insert Figure 4here

Within disciplines, the most striking differences were between the category Health Sciences and the category Mathematics and Physics (see Figure 5), the former published mainly by commercial and private companies and the latter group apparently affected by the habit of researchers for self-archiving in the subject repository Arxiv.

Insert Figure 5 here

If we compare data about online access type and permission for selfarchiving, 43% of the journals met the conditions of gratis and "libre" (Suber, 2008) and, regardless of the access type they offered, 64% of the journals permitted self-archiving. Regarding the statement of rights and permissions, some journal editors declared that they allowed self-archiving when they were directly consulted, even though their journal policy statement made no reference to this (see Table 4).

Classification of journals according to RoMEO colors

Depending on which version could be deposited in institutional or subject repositories and on personal web pages, journals were classified using SHERPA / RoMEO colors. As Figure 6 shows, 64% allowed self-archiving of some version of work (the author pre-print, the author post-print or version of record). These data are similar to the data provided by RoMEO about the journals contained in its database (Millington et al, 2011).

Insert figure 6 here

Note that in the case of blue journals with free access, the most frequently chosen version was the version of record (see Figure 7).

Insert figure 7 here

In the case of toll access journals published by commercial and private companies the predominant color was green (Figure 8), a reflection of the large number of journals published by Elsevier and its editorial policy for self-archiving, although this condition is also subject to the existence of institutional OA mandates.

Insert Figure 8 here

Social Sciences and Humanities journals together represented 73% of the total blue journals (see Figure 9).

Insert figure 9 here

As Table 5 shows, a total of 332 journals (21% of the journals examined) distributed their contents under CC licenses. This is 3 percent higher than that found in an earlier study (Abad-García et al., 2013) in support of the view that this is an increasing trend since they were created (Linksvayer, 2011). Again, social science and humanities journals used proportionally more CC licenses than other disciplines, and universities and research institutions were the publishers generating the largest number of journals with these licenses.

Insert Table 5 here

Statistical analysis of qualitative variables

Multiple correspondence analysis of the variables discipline, publisher, access, rights statement, permissions, use of CC licenses and RoMEO color is described by the graph in Figure 10. One strong association was found among the journals published by universities and research institutions, Social Sciences, Humanities and Engineering, free access, blue ROMEO color coding, and permission for self-archiving. At the opposite extreme are the health science journals with restricted access published by commercial and private publishers. In the center of the graph we see the journals published by foundations, scientific associations and societies, and governmental bodies, mainly in the disciplines life sciences, experimental sciences, and physics.

Insert figure 10 here

According to these results, a high percentage of Spanish scholarly journals appear to share the following features:

- they are published by a university or research institution;
- they are dedicated to the study of the social sciences or the humanities;
- online access is free (gratis);
- copyright and author rights are visibly described;
- they allow self-archiving of the author post-print or the version of record;
- RoMEO color classifies them as blue journals.

CONCLUSIONS

As we have seen, social sciences and humanties journals dominate, and this affects the analyses. There are several reasons for this. One is the Spanish social scientist's tendency to publish in his or her own language, even though many Spanish journals also accept papers in English or in other languages, like French or Portuguese. Another reason is that certain Spanish-language social science and humanities journals were launched more than 50 years ago (e.g., Archivo Español de Arte in 1925, Hispania and Revista de Educación in 1940, Anuario Musical in 1946 or Anales Cervantinos in 1951) and have been consolidated and recognized by readers and authors to the degree that they also have international prestige. A third reason is that most of these journals are published by universities and research institutions, whose policies

favouring open access to scholarly outputs we believe have contributed to the good health and sustainability of the journals they publish.

Turning to the second-most common group of Spanish scholarly journals, the journals dedicated to the The second biggest group, health sciences, have two distinct sub-sets: those from commercial and private publishers like Elsevier, Springer, *Aran Ediciones* or *Viguera Editores* that restrict access by subscription fees (although some publishers allow self-archiving of the author pre-print or post-print); and journals published by those from professional and associations and learned societies, universities and research institutions that offer free (gratis) access and allow self-archiving in open access repositories. Clearly the acquisition of a large Spanish publisher by Elsevier has had a substantial affect on the scene

Self-archiving is allowed for at least 65% of journals. This implies a high level of compliance with OA policies at national, European and international levels for mandating to deposit

We found that there is often still a lack of clarity, indeed complete absence in some cases, in stated policies on author rights and archiving. Publishers could help the rest of the community by rectifying this.

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Footnotes

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- 2. Creative Commons España. Available at http://es.creativecommons.org
- 3. Open Knowledge Definition. Available at http://opendefinition.org/okd
- 4. SURF Foundation license. Available at http://copyrighttoolbox.surf.nl/copyrighttoolbox/publishers/licence
- 5. SURF Foundation: Copyright toolbox. Available at http://copyrighttoolbox.surf.nl/copyrighttoolbox/authors/sample-wording/future-reuse/provisions
- 6. SHERPA/RoMEO: Publisher copyright policies & self-archiving. Available at http://www.sherpa.ac.uk/romeo
- 7. Grupo de investigación "Acceso abierto a la ciencia". Available at http://www.accesoabierto.net
- 8. Dulcinea: Derechos de copyright y las condiciones de auto-archivo de revistas científicas españolas. Available at http://www.accesoabierto.net/dulcinea
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- 11. Repositório Científico de Acesso Aberto de Portugal (RCAAP): Blimunda. Available at http://projecto.rcaap.pt/index.php/lang-pt/sobre-o-rcaap/servicos/projecto-blimunda
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- 17. HighWire Press: free online full-text articles. Available at http://highwire.stanford.edu/lists/freeart.dtl
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 Table 1. Frequency of journals classified by type of publisher and discipline (values in brackets indicate corresponding percentages by rows)

	Discipline								
	Fine and								_
	Performing	Health	Life	Experimental	Social			Mathematics	
Publisher	Arts	Sciences	Sciences	sciences	Sciences	Humanities	Engineering	and Physics	TOTAL
University/research institutions	14 (2%)	23 (3%)	31 (4%)	12 (1.5%)	426 (55%)	247 (32%)	18 (2%)	5 (0.6%)	776 (48%)
Commercial/private	11(2/0)	23 (370)	31 (170)	12 (1.370)	120 (3370)	217 (3270)	10 (270)	3 (0.070)	(1070)
publishers	0 (0%)	155 (57%)	1 (0.3%)	4 (1.5%)	74 (27%)	2 (0.7%)	10 (3.7%)	8 (3%)	272 (17%)
Scientific	, ,	, ,	. ,	, ,			, ,		
associations/societies	6 (1.5%)	116 (29%)	33 (8%)	14 (3.5%)	149 (37%)	60 (15%)	15 (4%)	10 (2.5%)	403 (25%)
Museums	1 (6%)	0	5 (31%)	2 (12.5%)	5 (31%)	3 (19%)	0	0	16 (1%)
Foundations	0	19 (38%)	0	1 (2%)	24 (48%)	6 (12%)	0	0	50 (3%)
Royal academies	-	(===,		_ (_/- /	_ (, _ , ,	(==/-/			()
Governmental bodies	1 (6%)	6 (33%)	1 (6%)	2 (12%)	1 (6%)	6 (33%)	0	1 (6%)	18 (1%)
	2 (2.5%)	11 (14%)	1 (1%)	3 (4%)	40 (50%) 719	21 (26%) 363	1 (1%)	1 (1%)	80 (5%)
TOTAL	24 (1.5%)	330 (20%)	72 (4.5%)	38 (2%)	(44.5%)	(22.5%)	44 (3%)	25 (1.5%)	1615

Table 2. Frequency of journals by type of publisher and online access (values in brackets indicate corresponding percentages by rows)

	Online access				
	Restricted				
		Gratis after an	to		
Publisher	Gratis	embargo	subscribers	TOTAL	
University/research					
institutions	617		(()		
Commercial/private	(79.5%)	113 (14.5%)	46 (6%)	776	
publishers	110 (40%)	16 (6%)	146 (54%)	272	
Scientific		, ,			
associations/societies	305 (76%)	35 (9%)	63 (16%)	403	
Museums	12 (75%)	2 (12.5%)	2 (12.5%)	16	
Foundations	27 (54%)	3 (6%)	20 (40%)	50	
Royal academies	27 (3470)	3 (070)	20 (40/0)	30	
	14 (77%)	1 (6%)	3 (16%)	18	
Governmental bodies					
	64 (80%)	11 (12.5)	5 (7.5%)	80	
TOTAL	1149	404 (440)	205 (400()	4.64.5	
TOTAL	(71%)	181 (11%)	285 (18%)	1615	

Table 3. Spanish biomedical journals published by Elsevier with free online access and subscription for print versions

Journal	Owner of the journal			
Anales de Pediatría	Asociación Española de Pediatría			
Apunts Medicina de l'Esport	Consell Català de l'Esport			
	Sociedad Española de Medicina de Familia y			
Atención Primaria	Comunitaria			
Cardiocore	Sociedad Andaluza de Cardiología			
	Sociedad Española de Cirugía Torácica y			
Cirugía Cardioovasular	Cardiovascular			
J	Sociedad Española de Arteriosclerosis,			
Clínica e Investigación en	Sociedad Latinoamericana de Aterosclerosis,			
Arteriosclerosis	Sociedad Iberolatinoamericana de Aterosclerosis			
Investigaciones Europeas de				
Dirección y Economía de la	Academia Europea de Dirección y Economía de la			
Empresa	Empresa			
Enfermedades Infecciosas y	Sociedad Española de Enfermedades Infecciosas			
Microbiología Clínica	y Microbiología Clínica			
Clinica y Salud	Colegio Oficial de Psicólogos de Madrid			
,	Sociedad Española de Salud Pública y			
Gaceta Sanitaria	Administración Sanitaria			
Intervención Psicosocial	Colegio Oficial de Psicólogos de Madrid			
Psicología Educativa	Colegio Oficial de Psicólogos de Madrid			
Revista de Psicología del Trabajo y	coregio cholar de l'orociogos de madria			
de las Organizaciones	Colegio Oficial de Psicólogos de Madrid			
Neurología	Sociedad Española de Neurología			
Seminarios de la Fundación	Sociedad Espairoid de Nedrologia			
Española de Reumatología	Sociedad Española de Reumatología			
zopanora de neamatorogra	Sociedad Española de Reumatología, Colegio			
Reumatología Clínica	Mexicano de Reumatología			
Revista Andaluza de Medicina del				
Deporte	Centro Andaluz de Medicina del Deporte			
Revista Científica de la Sociedad	22 2			
Española de Enfermería				
Neurológica	Sociedad Española de Enfermería Neurológica			
Revista de Psiquiatría y Salud	Sociedad Española de Psiquiatría, Sociedad			
Mental	Española de Psquiatría Biológica			
Revista Médica Internacional sobre				
el Síndrome de Down	Fundació Catalana Síndrome de Down			
RIAI: Revista Iberoamericana de				
Automática e Informática Industrial	Comité Español de Automática			
The state of the s	Sociedad Española de Médicos de Atención			
SEMERGEN	Primaria			
Trastornos Adictivos	Sociedad Española de Toxicomanías			

Table 4. Frequency of journals that allow self-archiving by access and rights description (values in brackets indicate corresponding percentages by rows)

	Self-archiving			
Access and rights	Not allowed	Unknown	Allowed	
Gratis	127 (11%)	198 (17%)	824 (72%)	
Gratis after an embargo	28 (15%)	34 (19%)	119 (66%)	
Restricted to subscribers	80 (28%)	102 (36%)	103 (46%)	
Total	235 (15%)	334 (21%)	1046 (64%)	
No rights description	19 (3%)	266 (53%)	221 (44%)	
Rights are described/mentioned	216 (19%)	68 (6)	825 (75%)	

 Table 5. Number of journals using CC licences

	Use of CC licenses			
	Total	No		
	journals	journals	Percentage	
By Discipline				
Fine and Performing Arts	24	7	29	
Health Sciences	330	26	8	
Life Sciences	72	19	26	
Experimental Sciences	38	7	18	
Social Sciences	719	182	25	
Humanities	363	78	21	
Engineering	44	9	20	
Mathematics and Physics	25	4	16	
By Publisher				
University/research				
institutions	776	207	27	
Commercial/private				
publishers	272	19	7	
Scientific				
associations/societies	403	85	21	
Museums	16	3	19	
Foundations	50	6	12	
Royal academies	18	1	6	
Governmental bodies	80	11	14	

- Figure 1. Mention of author rights by type of publisher
- Figure 2. Mention of author rights by discipline
- Figure 3. Mention of author rights by type of access to online journal contents
- Figure 4. Permission for self-archiving by type of publisher
- Figure 5. Permission for self-archiving by discipline
- Figure 6. Spanish scholarly journals by RoMEO color
- Figure 7. Journals by type of online access against RoMEO colors
- Figure 8. Journals by RoMEO color against subject discipline
- **Figure 9**. Journals by RoMEO color against type of publisher

Figure 10. Two-dimensional representation of the multiple correspondence analysis with the following variables and their modalities: discipline (cat), type of publisher (Edit), rights statement (rights), access (Acc), permission for self-archiving (self-arch), RoMEO color and use of Creative Commons licenses. Cat1: Fine and Performing Arts; Cat2: Health Sciences; Cat3: Life Sciences; Cat4: Experimental Sciences; Cat5: Social Sciences; Cat6 Humanities; Cat7: Engineering; Cat7: Mathematics and Physical Sciences. Edit1: university and research institutions; Edit2: commercial and private publishers; Edit3: scientific associations and societies; Edit4: museums; Edit 5: foundations; Edit 6: royal academies; and Edit (7) governmental bodies. Acc1: Free access; Acc2: gratis after an embargo; Acc3: Access restricted to susbscribers. Self-arch0: Not allowed; self-arch1: not mentioned; Self-arch1: allowed.

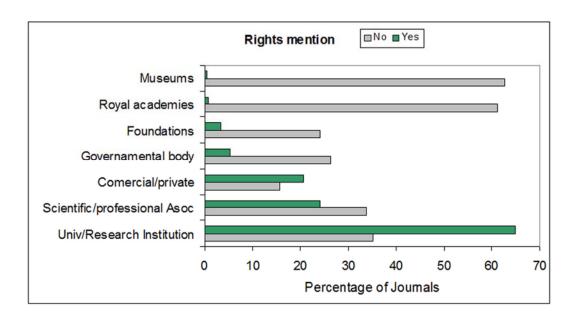


Figure 1

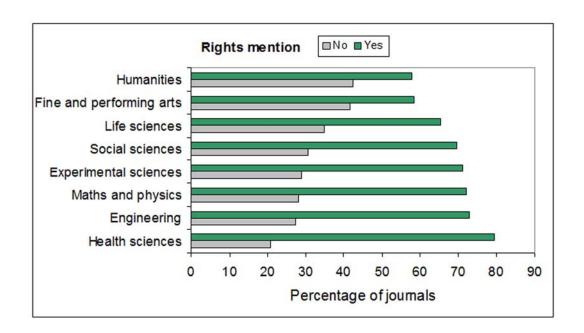


Figure 2

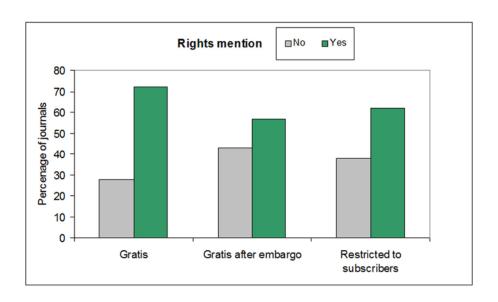


Figure 3

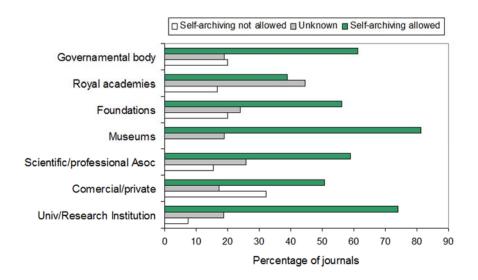


Figure 4

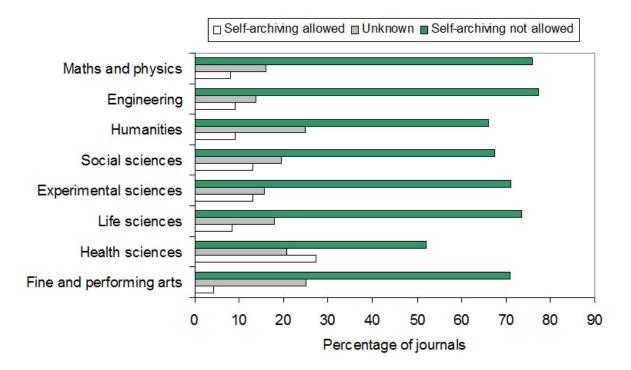


Figure 5

Journals by ROMEO colour

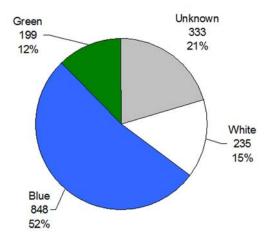


Figure 6

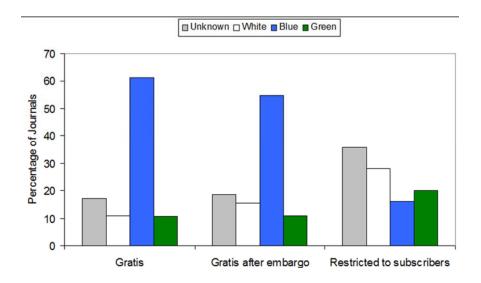


Figure 7

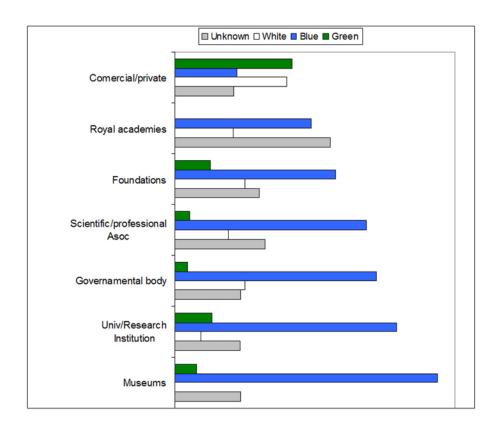


Figure 8

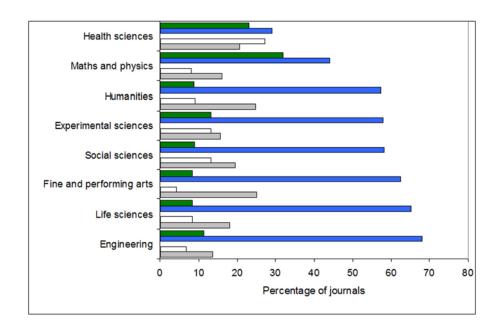


Figure 9

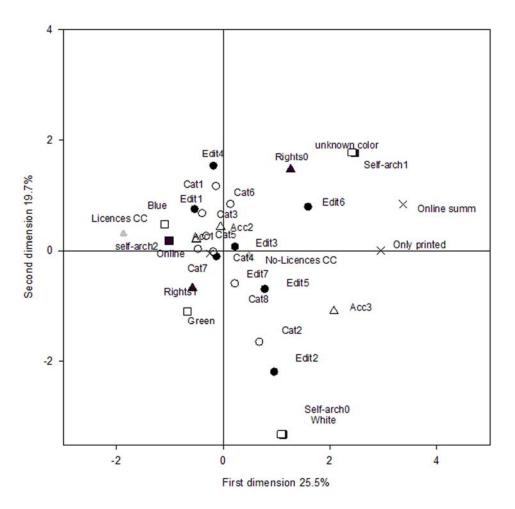


Figure 10