E-books in Spanish university libraries: An analysis of online social sciences degrees

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ABSTRACT

This paper analyzes the availability, via both library lending licenses and open access, of digital versions of the monographs that professors recommend in online bachelor's degrees courses in social sciences at Spanish public universities. Monographs are the type of document most recommended by professors when it comes to teaching and learning in higher education. Digital format is most suitable for online degrees, considering the added effort entailed for libraries to get these documents owing to the geographic dispersion of the students.

For this purpose, all the resources in the recommended reading section of the syllabi from a sample of online degree programs in social sciences for the 2022–2023 academic year were extracted. Then, the catalogs of the corresponding university libraries were consulted to check the availability of the monographs on the reading lists. In addition, the catalogs of the usual suppliers to Spanish university libraries were consulted to check the availability of lending licenses for libraries. Finally, types of digital lending platforms are analyzed.

Monographs account for 85.6 % of the documents referenced in courses' recommended reading lists. Only 21.0 % of monographs are available in digital format, either through library lending (17.4 %) or open access (4.9 %). On the contrary, practically the entirety of reading lists is available for lending through university libraries in printed format. University libraries could make the effort to acquire even more digital lending licenses for a portion of the books recommended by professors, but in this way they could only obtain 40.9 % of the monographs in digital format.

Therefore, the publishing industry is not currently meeting the needs of online university education in the social sciences, owing to a large part of its catalog – especially older works – not being offered in digital format as well as the lack of library lending licenses.

Introduction: E-books in university libraries

One of the pandemic's effects on university libraries has been the growth of e-book collections (Frederick & Wolff-Eisenberg, 2020b) due to the need to make them available to students, faculty, and researchers.

In Spain, the incorporation of e-books into university libraries' collections has been gradual; it had already been occurring in preceding years, as shown in the statistics of the Spanish University Library Network (Rebiun, 2023), but it has ramped up since the state of alarm declared in response to the pandemic. Between 2019 and 2022, there was a 70.8 % increase in the titles of e-books in Spanish university libraries, from 18.8 million to 32.1 million, according to data from the aforementioned network (Rebiun, 2023); meanwhile, the growth of

printed book collections has been slow, with the number of titles increasing by 0.5 % and the number of copies by 2.0 %. Whether this trend of increased e-books uptake will continue over the long term (Novak et al., 2020), or whether this change is a one-off, remains to be seen.

However, spending on e-books in Spain has not increased as significantly as collections; rather, it was a mere 11.4 % between 2019 and 2022. This could be linked to the tendency to subscribe to large commercial package licenses and consortium operating models for e-book acquisition. Nevertheless, while spending on printed books has declined significantly (−13.2 %), spending on e-books has shown an upward trend.

There is no doubt about how important monographs are for

academic institutions. These resources remain the type of document predominantly used in teaching and learning in higher education. Students use them to supplement their notes, answer their questions, and do class work because they are the type of document that teachers recommend most on course reading lists, as has been found in several studies regarding syllabi (Lascurain-Sánchez et al., 2008; Rodríguez-Bravo et al., 2015; Shirkey, 2011). Additionally, this type of document is the one that most often circulates in printed format, although its use has been diminished owing to the gradual increase in e-books in university collections (Alvite-Díez & Rodríguez-Bravo, 2009; Littman & Conaway, 2004; Martell, 2008; Rodríguez-Bravo & Rodríguez-Sedano, 2016; Rose-Wiles, 2013) and the change in reading culture associated with increased use of information from the Internet and social networks (Rose-Wiles et al., 2020).

Despite the growing need, when libraries attempt to acquire electronic monographs, they find that many of the titles are only published in print or that licenses for library lending are not available. While scientific and scholarly journals are mostly published in digital format, the process of digitizing monographs is lagging further behind (Blummer & Kenton, 2020). According to data published by the Ministry of Culture and Sport (Ministerio de Cultura y Deporte, 2023), 66.2 % of ISBNs assigned in Spain were still for paper books, and this percentage could be also higher for academic books (Gil, 2022; Merchán-Sánchez-Jara et al., 2018).

In addition to supply constraints, libraries encounter other obstacles when it comes to acquiring e-books for lending, in particular because of the business models imposed by the publishing industry, that is, licensing and digital rights management (DRM) access restrictions; limitations in interlibrary loans; increased complexity of management, owing to the various licenses and platforms; rising prices; and difficulties in freely building an adequate collection, owing to the current bundling models (Alonso-Arévalo et al., 2015; Blummer & Kenton, 2020; Maceviciute et al., 2015; Merlo-Vega, 2015; Vasileiou et al., 2012). This situation has not changed substantially in recent years, despite pressure from library and professional associations, such as the European Bureau of Library, Information and Documentation Associations (EBLIDA, 2012, 2013), International Federation of Library Associations and Institutions (IFLA, 2013), and Federación Española de Sociedades de Archivística, Biblioteconomía, Documentación y Museística (FESABID, 2021), which call for lending conditions for libraries to be similar to the ones they have for printed books.

Despite all these limitations, library policies have moved to incorporate e-books into their collections, prioritizing access to content over the reading experience, which is still not optimal for the user.

The indisputable advantage of e-books is immediate access to their content, from anywhere and at any time (Blummer & Kenton, 2020), which is paramount for online students or students with reduced mobility. However, they also have other strengths, such as portability and ease in searching content, as well as their space-saving and environmentally friendly nature (Alonso-Arévalo et al., 2013; Blummer & Kenton, 2020; Owens et al., 2023). All these qualities make e-books ideal for students' performance of academic tasks, such as doing class work, consulting specific data, or expanding their knowledge.

However, it is argued that print format is preferred for tasks such as studying and in-depth reading, and, in general, when concentration is required (Mastrobattista & Merchán-Sánchez-Jara, 2022). That being said, having access to the digital version also makes it possible to print a copy, at least to the extent permitted by lending licenses and intellectual property legislation. These DRM restrictions are an obstacle to e-book use that users have highlighted (Owens et al., 2023).

Several authors have noted the underutilization of the innovations that the electronic format provides, such as the ability to annotate, bookmark, highlight, summarize, link, share, and discuss (Kelly, 2016; Novak et al., 2020). In fact, even distance learners seem to prefer downloadable e-book formats, which emulate the experience of print, allowing them to skim the content and/or print (Tracy, 2020).

Thus, it seems necessary to train users in digital reading, use of platforms, formats, restrictions, etc. Along these lines, Maceviciute et al. (2015) point out that librarians need to be trained so that they can guide users. As Tracy (2020) points out, libraries must continue to ask themselves whether they have the e-books that users need and whether they have adequately prepared their users to use e-books.

Additionally, many studies agree that students lack awareness of e-book collections and that they needed to be promoted (Alonso-Arévalo et al., 2013; Blummer & Kenton, 2020; Comeaux et al., 2018; Mastrobattista & Merchán-Sánchez-Jara, 2022). As a way to promote people's awareness of them, recommendations have urged that e-book records be included in the online public access catalog (OPAC) or discovery tool (Croft & Davis, 2010; Dillon, 2001; Lamothe, 2013), and that links to the books be added to the recommended reading lists on syllabi.

For years, the libraries of universities that offer online degrees and the professors who teach them have been faced with the challenge of making the resources on reading lists available to distance learning students. The most obvious solution is to make access to the reading lists available in a digital format. However, they encounter the problems described in the previous paragraphs.

Objectives and background

The objective of this study is to analyze the availability of digital versions of the monographs that professors have recommended in courses from online bachelor's degrees programs via both library lending licenses and open access. For this purpose, we study the recommended reading lists in the syllabi of the online social sciences degrees that are offered at Spanish public universities. We provide data for the online degree programs as a whole, rather than per course; the programs in question will be detailed in the Methodology section.

We believe that, for online degrees, having reading and reference materials accessible from any location is an absolute necessity owing to the geographic dispersion of the students who pursue these studies.

A previous study has explored this same problem focusing on the online bachelor's degree in library and information science at the Universidad de León in Spain (Arroyo-Vázquez et al., 2023). In the present manuscript, the aim is to analyze how this situation affects several online degrees in the field of social sciences. This new study will allow us to have a broader understanding of the degrees in social sciences.

Hardly any previous studies that quantify the percentage of the recommended reading list that Spanish libraries can acquire in electronic format for library lending have been found. One of the librarians interviewed by Arroyo-Vázquez and Gómez-Hernández (2020) indicated that this percentage could be between 17 % and 35 % in Spanish universities, depending on the degree. These data could have increased over the years, as a previous study placed this percentage between 8 % and 10 % at the Universidad Nacional de Educación a Distancia (UNED) during the 2012–2013 academic year (Lavado-Sánchez & Pereda-Llerena, 2014).

Therefore, this article analyzes for the first time the recommended reading lists from several social science degrees at different Spanish universities with the objective of finding out what percentage of the recommended reading lists is available in electronic format.

In the United States, Behr and Hill (2012) analyzed electronic reserves for courses at Western Michigan University (WMU) and Central Michigan University (CMU) and concluded that 39.7 % and 35.7 % of the materials, respectively, could be obtained in electronic format. Similar results were obtained at Yale University during the pandemic when they attempted to make the materials listed in the course reserves, which were both monographs and audiovisual resources, available to students. Initially, only 33 % were available in digital format in their collection, but they managed to increase this percentage to 61 % (Tudesco & Relevo, 2020).

Table 1
Online degrees included in the sample.

University	Bachelor's degree
Universidad de Las Palmas de Gran Canaria (ULPGC)	- Primary education - Labor relations and human resources - Safety and risk management - Social work
Universidad de Burgos (UBU)	- Political science and public administration
Universidad de León (ULE)	- Library and information science
Universitat d'Alacant (UA)	- Criminology
Universidade da Coruña (UDC)	- Tourism
Universidade de Vigo (UVIGO)	- Public management and leadership

Table 2
Resources from the reading lists, by subject and types of documents in the sample ($n = 3137$).

Bachelor's degree	Resources	Courses	Resources by course	Type of resources		
				Books (%)	Articles (%)	Other (%)
Political science and public administration (UBU)	411	41	10.0	87.3 %	0.5 %	12.2 %
Criminology (UA)	493	46	10.7	100.0 %	0.0 %	0.0 %
Primary education (ULPGC)	228	17	13.4	89.5 %	5.7 %	4.8 %
Library and information science (ULE)	685	39	17.6	73.4 %	9.2 %	17.4 %
Labor relations and human resources (ULPGC)	272	41	6.6	97.8 %	0.7 %	1.5 %
Safety and risk management (ULPGC)	185	44	4.2	70.8 %	9.2 %	20.0 %
Social work (ULPGC)	97	10	9.7	94.8 %	2.1 %	3.1 %
Public management and leadership (UVIGO)	289	40	7.2	86.5 %	5.5 %	8.0 %
Tourism (UDC)	477	33	14.5	81.1 %	5.7 %	13.2 %
Totals	3137	311	10.1	85.6 %	4.5 %	9.9 %

Methodology

To select the sample of degrees for analysis, we first identified the online social sciences bachelor's degrees offered through Spanish public universities, excluding universities that only offered distance learning degrees, on the basis that their nature is not comparable to that of campus-based universities that offer some degrees online. To this end, in mid-November 2022, the database *Qué estudiar y dónde en la universidad* (QEdu; What to Study at University and Where)[1] was searched. A total of 14 online degrees were collected, from which a single degree of each type was randomly selected from the wide range of social science degrees offered, aiming for a variety of universities to be represented. It was decided not to include the bachelor's degree in publicity, public relations, and marketing from the Universitat de Barcelona, since the recommended reading list was not publicly provided. Thus, nine online degrees were selected, and these are presented in Table 1.

For each of these degrees, all the resources in the recommended reading section of the courses' syllabi for the 2022–2023 academic year were extracted. It must be taken into account that some degrees have been created recently, so only the curriculum for the first years are available; this is the case for the bachelor's degrees in primary education and in social work at the Universidad de Las Palmas de Gran Canaria.

The resources were extracted between 14 and 22 February 2023 using a combination of scraping, where possible, as well as manual methods. A total of 3137 resources were obtained from the reading lists using this process.

Afterwards, duplicate resources from the courses at each university analyzed were eliminated, but duplicate resources from different universities were maintained; that is, if a resource appeared in several degrees taught at the same university, the duplicates were eliminated. However, if the same resource appeared several times but at different universities, it was maintained for all of them, so as to analyze the availability of these resources in each university's collection. The resulting sample contained 2827 resources from the recommended reading lists.

Between 5 March and 25 April 2023, the catalogs of the corresponding university libraries as well as publishers' catalogs were consulted to check the availability of the monographs on the reading lists. In addition, between 2 May and 19 June 2023, the catalogs of the usual suppliers to Spanish university libraries were consulted to check the availability of lending licenses for libraries.

Thus, the following information was collected for each document referenced in the reading lists:

- Identification and edition information: complete reference, type of document, publisher, year of publication, country of publication, and language
- Course data: name of the class that the resource came from, school year, and subject area

In addition, the following data were collected for each book:

- Availability in the library: The library catalogs were searched to determine whether each referenced monograph was available. If so, it was indicated whether it was in print and/or digital format.
- Availability in open access: Whether or not each book referenced was available in open access, either because the publisher itself permitted it or because it was shared by the author through a repository or on the Internet. This category does not include works shared through methods that do not comply with the law.
- Type of platform through which these e-books were available: These platforms were classified according to the type of supplier, on the basis of the recommendation by Merlo-Vega (2015), as follows:
- Publishers' platforms created to provide access to their electronic collections. Such is the case with Aranzadi, Taylor & Francis, Elsevier, and Springer, among others.
- Cooperative digital services that come from the academic environment or non-profit organizations, such as Project MUSE or JSTOR.
- Digital lending platforms, the type of software provided by companies for lending through which libraries can acquire e-books from various publishers that collaborate with these companies. Some of the most popular lending platforms in Spain are *XeBook*, from the company Xercode, and *OdiloTK*, from the company Odilo.
- Aggregators, which are "providers that integrate e-books from multiple publishers into their platforms, for purchase or subscription and reading" (Merlo-Vega, 2015). The most popular aggregators in Spanish university libraries are EBSCO, ProQuest, eLibro, and Ingebook.
- Online teaching platforms, through which the university makes teaching materials created by professors available to students, with restricted access. Among the universities analyzed, only the Universidad de Las Palmas de Gran Canaria had such a platform.

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[1] http://siiu.universidades.gob.es/QEDU.

Results

Characteristics of the recommended reading lists

A total of 3137 resources were found in the reading lists of the course syllabi, of which 52.5 % corresponded to an essential reading list and 47.5 % to a complementary reading list. Each course's recommended reading list contained an average of 10.1 resources, but there were large differences between degrees: the number was much higher than this average for some of them, for example, the bachelor's degree in library and information science, with 17.6 resources per course; the bachelor's degree in tourism, with 14.5 resources; or the bachelor's degree in primary education, with 13.4 resources. On the contrary, in other degrees, the average number of resources per course was much lower, as was the case with the bachelor's degree in safety and risk management, with an average of 4.2 resources per course; the bachelor's degree in labor relations and human resources, with 6.6 resources per course; or the bachelor's degree in public management and leadership, with 7.2 resources per course.

Most of the resources recommended by the professors were monographs, which accounted for 85.6 % of the resources collected (Table 2). For some degrees, the percentage of monographs was even higher: 100.0 % for the bachelor's degree in criminology, 97.8 % for the bachelor's degree in labor relations and human resources, and 94.8 % for the bachelor's degree in social work. Although in other degrees the types of documents were more diverse, the majority were monographs. This is the case for the bachelor's degree in security and risk management, for which 70.8 % were monographs, and the bachelor's degree in library and information science, for which 73.4 % were monographs. Both degrees are characterized by a greater number of articles and other types of documents, such as technical documents or legislation, which may be indicative of their more practical nature.

This high percentage of monographs is consistent with the results of previous studies. Rodríguez-Bravo et al. (2015) observed that books were extensively used in social science degrees (79.98 %) and engineering degrees (93.44 %), whereas Frederick and Wolff-Eisenberg (2020a) identified this preference in the humanities and in some social sciences fields. Arroyo-Vázquez et al. (2023) observed that, during the 2021–2022 academic year, monographs accounted for 71.0 % of the total number of resources for the bachelor's degree in library and information science at the Universidad de León. The variations from one year to the next are undoubtedly due to teachers' updates in the new year.

Characteristics of the monographs in the recommended reading lists

To find out what percentage of the monographs in the recommended reading lists was available in the libraries, resources that were repeated several times in the degrees offered by a university were removed. Thus, a sample of 2826 resources was obtained. Of these resources without duplicates, 84.6 % were monographs (2392 resources), which is the type of document analyzed in this and the following sections. To analyze the characteristics of the monographs recommended by the professors, their average life, place of publication, and language will be studied hereinafter.

Each resource's average life is an indicator of the age of each document. The shorter the resources' life, the more up-to-date the reading list will be. Conversely, a longer life may reveal that the literature on a topic is more outdated or older. The age of a document may be related to the likelihood of its being available in digital format (Arroyo-Vázquez et al., 2023).

This indicator is calculated by taking into account the average age of the documents, using the year 2023 as a reference. Thus, a monograph published in 2012 would have an average life of 11 years. This indicator was previously used by Lascurain-Sánchez et al. (2008), who set the average life of a recommended reading list for library science and

Table 3

Characteristics of the monographs in the recommended reading lists: average life and geographic area of publication ($n = 2392$).

Bachelor's degree	Average life	Geographic area of publication			
		Spain	Latin America	Europe	United States
Political science and public administration (UBU)	14.1	80.7 %	6.6 %	6.0 %	6.6 %
Criminology (UA)	13.3	87.1 %	3.8 %	2.6 %	6.6 %
Primary education (ULPGC)	20.0	94.2 %	0.0 %	2.1 %	3.7 %
Library and information science (ULE)	19.6	77.5 %	3.0 %	14.7 %	4.5 %
Labor relations and human resources (ULPGC)	17.1	89.9 %	1.3 %	2.1 %	6.8 %
Safety and risk management (ULPGC)	16.4	94.2 %	0.8 %	0.0 %	5.0 %
Social work (ULPGC)	18.7	85.5 %	1.3 %	0.0 %	13.2 %
Public management and leadership (UVIGO)	13.4	83.1 %	3.9 %	7.4 %	5.6 %
Tourism (UDC)	18.3	81.9 %	2.9 %	12.4 %	2.9 %
Overall averages	16.5	84.4 %	3.1 %	6.9 %	5.5 %

documentation studies at 10.98 years, taking 2006 as a reference year.

The monographs' average life for the online degrees analyzed was 16.5 years (Table 3). This age was higher for the bachelor's degrees in primary education (20.0) and in library and information science (19.6). On the contrary, it was lower for the bachelor's degrees in criminology (13.3) and in public management and leadership (13.4). Therefore, we can say that the reading lists for these last two degrees is younger, whereas for the ones before that, it would be necessary to assess the reason for their age.

Monographs' old age in some degrees may be due to various causes –though the recommended reading lists being outdated, as pointed out by Lascurain-Sánchez et al. (2008), should not be ruled out. It could also be due to the relevance of classic manuals in certain subjects, or to the lack of updated reference manuals on the market (Arroyo-Vázquez et al., 2023).

Arroyo-Vázquez et al. (2023) pointed out that, in library and information science courses, manuals and monographs published at the beginning of this century, for which updates are not available as would be preferable, continue to be recommended in many subjects. As said authors indicated, in this same degree program at the Universidad de León, the monographs' average life was 19.2 years, taking the year 2022 as a reference. When comparing this average life with that of the following year (19.6), a slight increase was observed, which could be indicative of limited updating of some courses' recommended reading lists.

Most of the resources on the reading lists were published in Spain (84.4 %). The European and US publishing markets accounted for 6.9 % and 5.5 %, respectively. Finally, works published in Latin American countries accounted for 3.1 %. Only one work from another region was found.

Most of the recommended monographs were in Spanish (88.6 %), but 9.2 % of them were in English. A very small minority of works were in other official languages of Spain (0.7 %); these were only found in the degrees taught at Galician universities (Universidade de Vigo and Universidade da Coruña). Hardly any works in other languages (1.4 %), such as German, French, Italian, or Portuguese, were found. They were more common for the bachelor's degrees in library and information

Table 4

Formats in which the monographs were available (*n* = 2392).

| Bachelor's degree	Lending or use of printed books in the library		Digital lending through the library		Open access		Not available		Totals
	Number	%	Number	%	Number	%	Number	%	
Political science and public administration (UBU)	296	89.2 %	71	21.4 %	7	2.1 %	18	5.4 %	332
Criminology (UA)	411	96.5 %	74	17.4 %	10	2.3 %	13	3.1 %	426
Primary education (ULPGC)	180	94.2 %	33	17.3 %	14	7.3 %	4	2.1 %	191
Library and information science (ULE)	410	88.6 %	99	21.4 %	24	5.2 %	26	5.6 %	463
Labor relations and human resources (ULPGC)	233	98.3 %	33	13.9 %	11	4.6 %	4	1.7 %	237
Safety and risk management (ULPGC)	100	82.6 %	42	34.7 %	14	11.6 %	12	9.9 %	121
Social work (ULPGC)	69	90.8 %	13	17.1 %	4	5.3 %	5	6.6 %	76
Public management and leadership (UVIGO)	207	89.6 %	20	8.7 %	24	10.4 %	9	3.9 %	231
Tourism (UDC)	281	89.2 %	31	9.8 %	10	3.2 %	27	8.6 %	315
Totals and average overall percentages	2187	91.4 %	416	17.4 %	118	4.9 %	118	4.9 %	2392
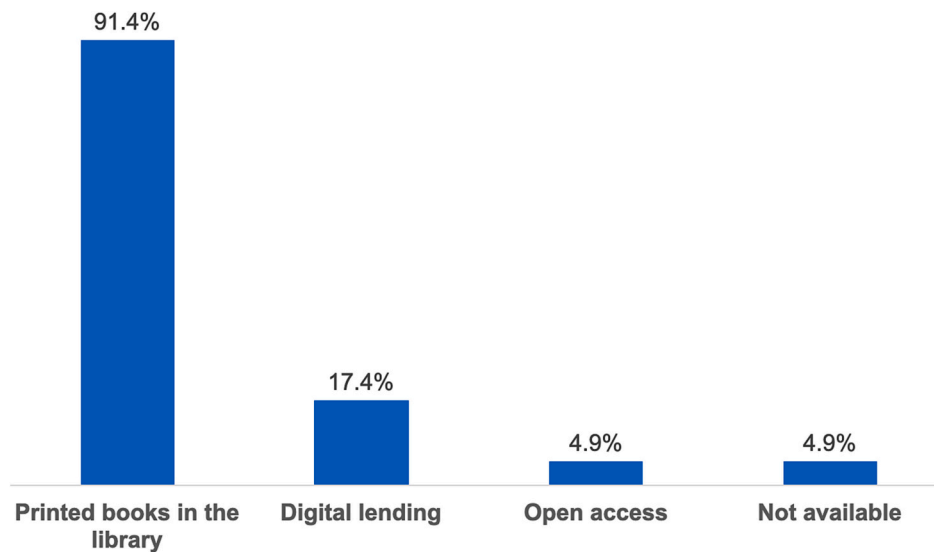
Fig. 1. Formats in which the monographs were available: totals and average overall percentages (*n* = 2392).

science (5.8 %) and in tourism (2.2 %); these were the two degrees in which works in languages other than Spanish were more frequently recommended, accounting for 17.9 % and 24.4 %, respectively.

Ways to access the monographs in the recommended reading lists

In the sample analyzed, 91.4 % of the monographs were available in the libraries in printed format, but only 21.0 % were available in digital format, either through open access or library lending (Tables 4 and 6). This percentage was much higher for the bachelor's degree in security and risk management (38.8 %) and above average for the bachelor's degrees in library and information science (25.7 %) and in political

science and public administration (23.5 %). In contrast, it was very low for the bachelor's degrees in tourism (12.4 %) and in labor relations and human resources (15.2 %).

A total of 17.4 % of the monographs were available in digital format for libraries lending (Table 4, Fig. 1). This percentage was much higher for the bachelor's degree in security and risk management (34.7 %) and above average for the bachelor's degrees in library and information science (21.4 %) and in political science and public administration (23.5 %). In contrast, it was very low for the bachelor's degrees in public management and leadership (8.7 %), in tourism (9.8 %), and in labor relations and human resources (13.9 %).

Of the monographs included in the courses' recommended reading

Table 5

Reasons why the resources from the reading lists were not available for digital lending from the library (*n* = 1890).

Bachelor's degree	Digital licenses could not be purchased		The library had not acquired any licenses		No data		Totals
	Number	%	Number	%	Number	%	
Political science and public administration (UBU)	193	76.0 %	61	24.0 %	0	0.0 %	254
Criminology (UA)	248	72.3 %	95	27.7 %	0	0.0 %	343
Primary education (ULPGC)	109	72.7 %	41	27.3 %	0	0.0 %	150
Library and information science (ULE)	277	80.5 %	57	16.6 %	10	2.9 %	344
Labor relations and human resources (ULPGC)	142	70.6 %	59	29.4 %	0	0.0 %	201
Safety and risk management (ULPGC)	61	82.4 %	13	17.6 %	0	0.0 %	74
Social work (ULPGC)	47	77.0 %	14	23.0 %	0	0.0 %	61
Public management and leadership (UVIGO)	118	63.1 %	69	36.9 %	0	0.0 %	187
Tourism (UDC)	213	77.2 %	63	22.8 %	0	0.0 %	276
Totals and average overall percentages	1408	74.5 %	472	25.0 %	10	0.5 %	1890

Table 6
Monographs' availability in digital format ($n = 2392$).

| Bachelor's degree	Available in digital format (library loan or open access)		Not available, but digital loan licenses could be purchased		Available in digital + digital lending licenses could be purchased		Totals
	Number	%	Number	%	Number	%	
Political science and public administration (UBU)	78	23.5 %	62	18.7 %	140	42.2 %	332
Criminology (UA)	83	19.5 %	97	22.8 %	180	42.3 %	426
Primary education (ULPGC)	41	21.5 %	41	21.5 %	82	42.9 %	191
Library and information science (ULE)	119	25.7 %	60	13.0 %	179	38.7 %	463
Labor relations and human resources (ULPGC)	36	15.2 %	59	24.9 %	95	40.1 %	237
Safety and risk management (ULPGC)	47	38.8 %	13	10.7 %	60	49.6 %	121
Social work (ULPGC)	15	19.7 %	14	18.4 %	29	38.2 %	76
Public management and leadership (UVIGO)	44	19.0 %	68	29.4 %	112	48.5 %	231
Tourism (UDC)	39	12.4 %	63	20.0 %	102	32.4 %	315
Totals and average overall percentages	502	21.0 %	477	19.9 %	979	40.9 %	2392
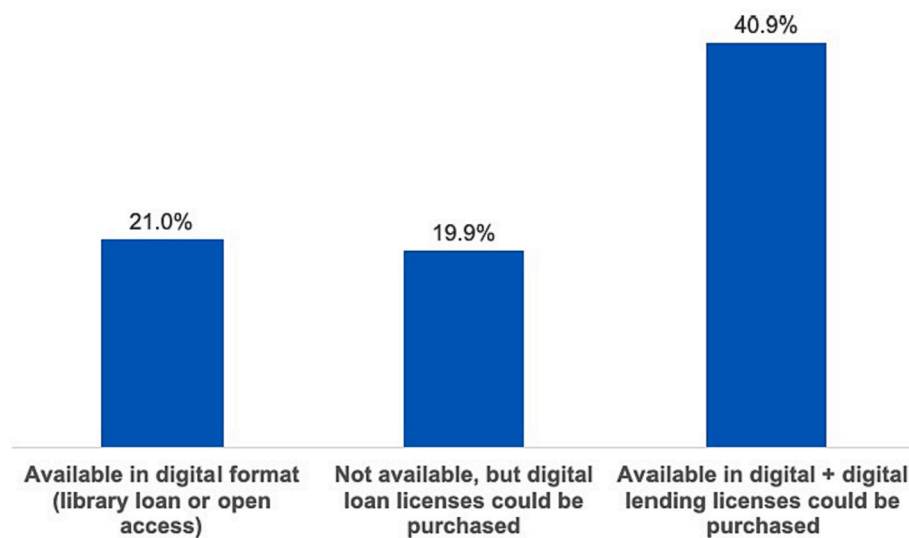
Fig. 2. Monographs' availability in digital format ($n = 2392$).

lists, 4.9 % were available in open access (Table 4); this percentage sometimes overlapped with availability in digital format. It was more common to find monographs in open access for the bachelor's degrees in safety and risk management (11.6 %) and in public management and leadership (10.4 %). In contrast, the percentage of monographs in open access was below average for the bachelor's degrees in tourism (3.2 %), in criminology (2.3 %), and in political science and public administration (2.1 %).

Of the monographs included in the courses' recommended reading lists, 4.9 % were not available in the library or in open access, so students could not access them, presenting a barrier to use. For the bachelor's degree in safety and risk management, this percentage doubled (9.9 %), and for the bachelor's degree in tourism, it was even higher than the average (8.6 %) (Table 4).

When the reasons why the content was not available in digital format were revealed, it was observed that, in 74.5 % of the cases, it was due to the lack of licenses for digital lending in libraries, whereas in the 25.0 % of the cases, there were digital licenses, but they had not been acquired by the library (Table 5). Once again, differences were found between degrees: For the bachelor's degrees in library and information science and in security and risk management, the percentage of cases in which the university library had not acquired licenses was much lower (16.6 % and 17.6 %, respectively). On the contrary, for the bachelor's degree in public management and leadership, this percentage was well above the average (36.9 %). This could have something to do with the university library's policy regarding the acquisition of digital content (Table 6).

Thus, up to 40.9 % of the recommended readings were available in

Table 7
Types of digital lending platforms.

	e-Books available in the library		e-Books that the library could purchase		Total e-books	
	Number	%	Number	%	Number	%
Aggregators	244	58.7 %	176	36.9 %	420	47.0 %
Publisher's platform	67	16.1 %	203	42.6 %	270	30.2 %
Library's digital lending platform	33	7.9 %	111	23.3 %	144	16.1 %
Online teaching platform	68	16.3 %	0	0.0 %	68	7.6 %
Cooperative services	1	0.2 %	7	1.5 %	8	0.9 %
Totals	416		477		893	

digital format, and no more (Table 6). This percentage ranged from 32.4 % for the bachelor's degree in tourism to almost half that for the bachelor's degrees in safety and risk management (49.6 %) and in public management and leadership (48.5 %). The rest of the degrees presented data around the average (Fig. 2).

The libraries of the universities analyzed preferred aggregators over other ways of acquiring e-book licenses (Table 7). Slightly more than half of the e-book licenses available in the library collections were acquired through aggregators (58.7 %), whereas only 16.1 % could be accessed through a publisher's platform and 7.9 % through a library's

digital lending platforms. The Library of the Universidad de Las Palmas de Gran Canaria also provided students with an online teaching platform for its students' restricted use. It should be noted that some e-books could be found through various types of platforms.

As for those e-books that were not yet available in libraries but could be acquired, 42.6 % could be accessed through the publisher's platform and 36.9 % through an aggregator, and 23.3 % could be integrated into a library's digital lending platform.

In sum, we could see that the supply of e-books for these degrees came mainly from aggregators (47.0 %) and publishers' platforms (30.2 %) but also from the libraries' digital lending platforms (16.1 %). This indicates that libraries have flexibility to expand their electronic collections through two avenues: publisher platforms and library digital lending platforms.

Conclusions

Monographs are the type of document most recommended by professors when it comes to teaching and learning in higher education. For online social sciences degrees offered at Spanish universities, they account for 85.6 % of the documents referenced in courses' recommended reading lists.

However, only 21.0 % of monographs are available in digital format, either through library lending (17.4 %) or open access (4.9 %). On the contrary, practically the entirety of reading lists is available for lending through university libraries in printed format (91.4 %). This means that libraries continue to give preference to the lending of printed books over digital versions, even for online degrees, despite the fact that the majority of students in these degrees will have difficulty using them because they do not live near the university where they study. Instead, students are forced to try to find them in other libraries to use them – considerably increasing the cost of university education (Murphy & Shelley, 2020) – or to resort to illegal copying.

University libraries could make the effort to acquire even more digital lending licenses for a portion of the books recommended by professors. However, university libraries could only improve their availability of digital books to include 40.9 % of all the monographs recommended in the syllabi. This would leave 59.1 % of the monographs only accessible in printed format.

Therefore, we can affirm that the publishing industry is not currently meeting the needs of online university education in the social sciences, owing to a large part of its catalog – especially older works – not being offered in digital format as well as the lack of library lending licenses.

Spanish copyright legislation restricts other forms of access to monographs in digital format, as pointed out by Arroyo-Vázquez et al. (2023). Exceptions for instruction and for libraries are particularly limited in Spanish legislation (Fernández-Molina et al., 2017) and do not allow digitized copies of monographs that are part of the library collection to be distributed to online degree students –something that would be especially useful in the case of works that are out-of-print or unavailable, from whose reissue publishers would not be compensated economically and from which they are no longer going to obtain an economic return.

Royal Legislative Decree 1/1996, from 12 April 1996 (Real Decreto 1/1996, 1996), approving the revised text of the Law on Intellectual Property, only permits works to be reproduced in libraries for research and conservation purposes, on a non-profit basis, provided that such works form part of the library's collections and are transmitted exclusively through a closed, internal network of specialized terminals installed for this purpose on the premises (Article 37).

As regards educational uses, the legislation only allows teachers to reproduce and publicly share small fragments of works, with the exception of university textbooks or manuals, for educational purposes without needing to remunerate the authors (Article 32.3). Additionally, teachers may reproduce, distribute, and publicly share a part equivalent to a chapter or a tenth of a printed work for educational and research

Table 8
Stakeholders in charge of the measures to improve the availability of e-books.

Stakeholder	Measures
Publishing industry	Accelerating the process of digitizing its works
	Extending the open access model to monographs
Libraries	Establishing agreements with publishers
	Promoting open educational resources
Library associations	Supporting changes in copyright legislation
	Establishing agreements between universities
Faculty	Awareness of the importance of recommending books in digital format

purposes, but in this case, remuneration is provided for through managing entities (Article 32.4).

Given this situation, we believe that it is necessary to take measures to guarantee the same rights for students pursuing distance learning degrees as for those attending classes in person, especially when it comes to access to the recommended reading list, as indicated by the standards for library services for distance learning from the Association of College & Research Libraries (ACRL, 2016). We would highlight the following measures (Table 8):

- Pressuring the publishing industry to accelerate the process of digitizing its works and to offer digital lending licenses at reasonable prices.
- Extending the open access model to monographs, establishing mandates and incentives for authors. Libraries may establish agreements with publishers to allow works that are out-of-print or unavailable, whose reprinting is not profitable, to be added to collections.
- Promoting open educational resources, as proposed by Santos-Hermosa and Abadal (2022), encouraging teachers to create them (Todorinova & Wilkinson, 2019).
- Supporting changes in copyright legislation that would allow controlled digital lending, as proposed by the IFLA (2021) and FESABID (Xalabarder, 2023), which would allow libraries to lend digitized copies of works that are part of their print collections, protecting them from illicit copying and limiting lending periods and licenses.
- Establishing agreements with Spanish universities, through the University Libraries Network (REBIUN), to enable online students from other universities access to their print collections.
- Making professors aware of the importance of recommending books that are available in digital format on the syllabi and of changing older manuals for more recent ones, provided that there are alternatives of equal or similar quality.

In a world in which online education is fully established and demand is growing, it is imperative to facilitate digital access to monographs to meet the educational needs of students through legal channels.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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