# Copyright literacy of LIS students in Portugal: some results from a case study

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**Abstract:** With the spread of Information and Communication Technologies, in general, and with the availability of digital communication networks and mobile devices, in a more specific approach, unauthorized consumption of content has become an integral part of the daily lives of the majority of social actors in their multiple uses of the internet. In this context, information professionals and Library and Information Science (LIS) students will have an essential role to play. As far as LIS students are concerned, it is important to know what knowledge they have about copyright laws and what kind of content and approach should be followed in the curriculums. For this purpose, a multinational study regarding copyright literacy skills among LIS students, called Copyright Literacy of LIS Students (CoLIS) was designed. In this paper, some Portuguese results of data collected are presented and analyzed. The paper shows the key findings on familiarity, knowledge, awareness, and opinions on copyright issues of LIS students. A comparison with the results from other countries using the same survey instrument is undertake.
**Keywords:** Information behaviour, LIS education, Copyright literacy, Portugal, Copyright

## 1. Introduction

Considering that information professionals will have to deal with copyright issues in their daily job routine (Schmidt & English, 2015), it is important to analyze LIS students current knowledge degree on this topic. In doing so, we will contribute to support those who have to make decisions about LIS curriculum, helping them to choose contents aligned to working context needs. On the other hand, it will be possible to support those who will work in information services to help increase their comfort level and knowledge of copyright policies.

As Ferullo (2008) stated, it is crucial that librarians have a basic understanding of the various provisions of the copyright law in order to make informed decisions related with issues as e-reserves, licensing, document delivery, and

fair use. However, few librarians have substantial training in copyright issues and decisions with legal implications are often made with an incomplete understanding of the nuanced issues involved (Hansen, Cross, & Phillip, 2013). With an international survey, Todorova et al. (2017) showed the need to improve the level of knowledge and the awareness of information professionals from libraries, archives and museums namely regarding knowledge of the international copyright institutions, clearing rights and concepts of copyleft and fair use/fair dealing, solutions about digitization of orphan and out-of-print works, virtual services with e-learning practices, and digitization. According so, LIS curriculum must be adapted to integrate copyright and licensing issues to better prepare graduates for the demands they will face on the job (Schmidt & English, 2015; Trencheva, Todorova, & Tsvetkova, 2018).

Information professionals do not must to be experts on copyright topics but they need to have a general understanding of the concepts and issues associated with copyright law (Norris, Tierney, & Dubach, 2019). In the USA, for the period 2006-2013, Kawooya, Veverka, & Lipinski (2015) found 264 jobs mentioning copyright in JobLIST, an electronic listserv of the American Library Association (ALA). Other studies reinforce the idea that job market searches for information professionals with knowledge on copyright with a significant increase in library positions relating to digital or electronic resources and scholarly communication (Schmidt, 2019).

Attending to this situation, it is important to know how Information Science departments providing degree-granting programs include copyright issues in order to prepare LIS future professionals.

## 2. Objectives and methodology

In 2012, in Bulgaria, Todorova et al. (2017) initiated a study about the knowledge of archives, museums and libraries professionals on copyright issues. These professionals increasingly need to deal with complex problems of copyright and need to have specific knowledge and skills. This study gained an international dimension, with the participation of 13 countries, including Portugal (Terra, 2016), and shortcomings in the copyright competencies of information professionals were identified. In this sense, it has become important to study the level of competency training of LIS students in order to make proposals for improvements in this area. Thus, another multinational study regarding copyright literacy skills among LIS students, called Copyright Literacy of LIS Students (CoLIS) was designed, in 2017-2018. The main aim of CoLIS was to collect data about knowledge, opinions, and experiences of LIS students regarding copyright policies and related issues.

For data collection a survey with 13 questions was created, mainly with closed answer options. Questions were about the identification of the kind of works under copyright protection, familiarity with copyright issues, information sources used to improve copyright knowledge, national copyright law, and

students' personal opinion about general knowledge and perceptions of copyright and related aspects in the specific context of information services and other cultural institutions. Four questions about demographic aspects were also included.

This survey instrument was translated from English to Portuguese and data were collected among undergraduate and master students from LIS area at Polytechnic Institute of Porto and University of Porto. The survey was applied between February 2018 and February 2019 and 79 valid questionnaires were collected. A convenience sample was used, as the survey was distributed during classes, giving time for students to answer. The sample included 62% of male and 38% of female. The majority (83,5%) is from undergraduate level and 16,5% are master students.

### 3. Results

Students where asked about what is under copyright protection and they showed some knowledge gaps [Table 1].

| In your opinion, which of the followings are under the protection of copyright? | No | Yes |
|---|---|---|
| Published materials (such as books and articles) | ,3% | 98,7 |
| Unpublished materials (such as thesis) | 30,4 | 69,6 |
| Music work | 13,9 | 86,1 |
| Art work such as paintings, and sculptures | 19,0 | 81,0 |
| Films | 15,2 | 84,8 |
| Ideas | 83,5 | 16,5 |
| Photos, maps, sketches | 40,5 | 59,5 |
| Dances, written choreography, pantomime | 77,2 | 22,8 |
| Computer software | 26,6 | 73,4 |
| Databases | 55,7 | 44,3 |
| Architectural projects, maquettes, environmental design and stage | 31,6 | 68,4 |
| Handcrafts, miniatures, textile and fashion designs | 59,5 | 40,5 |
| Graphical works | 48,1 | 51,9 |
| Caricatures, cartoons, comics | 41,8 | 58,2 |

**Table 1: Awareness about items under the protection of copyright (Q5)**

In fact, almost all of them (98,7%) consider that published materials (such as books and articles) are under copyright but only 40,5% of them understand that handcrafts, miniatures, textile and fashion designs can also be protected by copyright. It seems they mainly associate copyright with music work (86,1%), films (84,8%) and art work, such as paintings and sculptures, (81%). For other

graphical items, they showed more difficulties to understand that copyright applies. To 40,5% of the sample, photos, maps and sketches are not under copyright. For 48,1% of the sample graphical works are not covered by copyright and for 41,8% of the sample caricatures, cartoons and comics are neither protected by copyright. The same tendency is showed about architectural projects, maquettes, environmental design and stage design projects, as only 68,4% chose to include them under copyright protection. This lack of knowledge is even greater for dances, written choreography or pantomime because 77,2% understood that copyright does not applies. For the sample, the fact that computer software is under copyright protection is not clear as only 73,4% choose to include this item and 55,7% considered that databases are not at all copyrighted. However, a large majority understand that ideas are not under the protection of copyright as 83,5% choose the no option for this item.

Question nine (Q9) also intended to appreciate the level of knowledge of LIS students about copyright, this time regarding national context [Table 2].

| Which of the followings are included in your national | No | Yes |
|---|---|---|
| Duration of copyright protection | 35,4% | 64,6% |
| Exceptions for libraries, educational institutions, museums and archives | 72,2% | 27,8% |
| Exceptions for private use, educational, scientific and research purposes | 45,6% | 54,4% |
| Rights for librarians to provide modified copies of works to serve visual impaired patrons | 64,6% | 35,4% |
| Orphan works (e.g. compulsory license or limitation of liability) | 75,9% | 24,1% |

**Table 2: Awareness about issues included in Portuguese national copyright legislation (Q9)**

Portuguese law about copyright include all the options available on the answers, however students from the sample are not aware of that. In fact, only 64,6% of them consider that national copyright legislation establishes the duration of copyright protection and only 54,4% also indicated exceptions for private use, educational, scientific and research purposes. For the other options, the majority of LIS students thinks that they are not included in national copyright legislation. In fact, 75,9% consider that orphan works (e.g. compulsory license or limitation of liability) are not covered by legislation, 72,2% think that there are no exceptions for libraries, educational institutions, museums and archives in the copyright law and 64,6% have the same opinion about the rights for librarians to provide modified copies of works to serve the needs of visual impaired patrons.

Furthermore, the students were asked about their familiarity concerning some copyright issues [**Table 3**].

Results show that more than 80% of the sample are not familiar with six copyright aspects, some of them which are especially important in a digital context and fully related with information services and other cultural institutions. This include issues regarding digitization (83,5%) and issues/solutions related to virtual services within e-learning practices (82,3%). Copyright issues/solutions regarding orphan works (works whose owner/s can not be identified or located) is the topic that register the lower level of familiarity, with 94,9% of the sample indicating to have not familiarity with it.

Almost all the sample choose the same option for clearing right holder/s (92,4%) and for copyright issues/solutions regarding out-of-print works (91,1%). A vast majority of 84,8% also reveals no familiarity with international institutions focused on copyright and even at national level 79,7% of the students' state having no familiarity with such kind of institutions. Other issues related with digital services of libraries and other information and cultural institutions seems not to be familiar for a large part of the sample. This is the case of copyright issues about open access, open data (70,9%), copyright issues regarding the development of institutional repositories (64,6%), Creative Commons Licences (62%) and licensing for information sources, such as digital resources like data bases, (53,2%). In fact, there is only one aspect in which more than a half (58,2%) of the sample state familiarity, namely copyright and related law at national level.

| Are you familiar with the following? | No | Yes |
|---|---|---|
| Copyright and related law – national level | 41,8 | 58,2 |
| Copyright and related law – international level | 69,6 | 30,4 |
| Copyright related institutions – national level | 79,7 | 20,3 |
| Copyright related institutions – international level | 84,8 | 15,2 |
| Clearing right holder/s | 92,4 | 7,6 |
| Licensing for information sources (e.g. for digital resources – | 53,2 | 46,8 |
| Copyright issues regarding the development of institutional | 64,6 | 35,4 |
| Copyright issues/solutions regarding virtual services within | 82,3 | 17,7 |
| Creative Commons Licences | 62,0 | 38,0 |
| Copyright issues about open access, open data | 70,9 | 29,1 |
| Fair Use | 75,9 | 24,1 |
| Copyright issues regarding digitization | 83,5 | 16,5 |
| Copyright issues/solutions regarding materials from public | 77,2 | 22,8 |
| Copyright issues/solutions regarding out-of-print works | 91,1 | 8,9 |
| Copyright issues/solutions regarding orphan works | 94,9 | 5,1 |

**Table 3: Familiarity with copyright issues (Q6)**

Unfamiliarity with the most part of the aspects related to copyright issues has a direct relation with topics/issues in which LIS students have been educated/trained in their department [**Table 4**]. Collected data shows that regarding all the topics listed in question 12 a vast majority of the students refer to have received no training. More specific aspects of copyrights register the highest percentages of no training/education, as out-of-prints works (98,7%), orphan works (96,2%) or clearing right holder/s (91,1%). But broad aspects of copyright at national level, like copyright related initiatives (91,1%), copyright related law (68,4%) and copyright related institutions (83,5%), have also scored high in the option stating there has been no training/education. Copyright topics of high importance for information services seems not be included in LIS degrees curriculum as all of them presented also high averages in the option related to no training. This is the case for copyright issues regarding digitization (88,6%), exceptions and limitations related to copyright (86,1%), fair use (86,1%), copyright issues related to open access, open data (82,3%), copyright issues regarding the development of institutional repositories (78,5%), or licensing for information sources (70,9%). Students also stated that international approaches to copyright are not included in their curriculum, namely copyright related initiatives (91,1%), related institutions (87,3%) and copyright related law (86,1%). There were only two issues in which 40,5% of the students considered that they had formal training/education, these were Creative Commons Licences and copyright related information sources.

| Please specify the topics/issues you have been educated/trained in your department | No | Yes |
|---|---|---|
| **Copyright related law – national level** | 68,4% | 31,6% |
| **Copyright related law – international level** | 86,1% | 13,9% |
| **Copyright related institutions – national level** | 83,5% | 16,5% |
| **Copyright related institutions – international level** | 87,3% | 12,7% |
| **Copyright related initiatives – national level** | 91,1% | 8,9% |
| **Copyright related initiatives – international level** | 91,1% | 8,9% |
| **Copyright related information sources** | 59,5% | 40,5% |
| **Clearing right holder/s** | 91,1% | 8,9% |
| **Licensing for information sources (e.g. for digital resources – databases etc.)** | 70,9% | 29,1% |
| **Copyright issues regarding the development of institutional repositories** | 78,5% | 21,5% |
| **Copyright issues/solutions regarding virtual services within e-learning practices** | 88,6% | 11,4% |
| **Creative Commons Licences** | 59,5% | 40,5% |
| **Copyright issues related to open access, open data** | 82,3% | 17,7% |
| **Fair Use** | 86,1% | 13,9% |

| | | |
|---|---|---|
| **Copyright issues regarding digitization** | 88,6% | 11,4% |
| **Copyright issues/solutions regarding materials from public domain** | 84,8% | 15,2% |
| **Copyright issues/solutions regarding out-of-print works** | 98,7% | 1,3% |
| **Copyright issues/solutions regarding orphan works** | 96,2% | 3,8% |
| **Exceptions and limitations related to copyright** | 86,1% | 13,9% |

**Table 4: Topics/issues in which students have been educated/trained in their department (Q12)**

Attending to the results about topics/issues that LIS students think they should learn before graduating and start working in information services [Table 5], it seems that the sample do not shows a high degree of interest regarding these issues. For only one option, copyright related law in national context, there is 60% the sample considering that this should be included in the course plan. The option about copyright related information sources registers 51% of the sample choosing to include it as one issue to study before start working in information services. For all the other options, the majority of the sample do not consider useful to learn about when graduating. More than 70% do not consider useful to learn about copyright issues/solutions regarding orphan works (75%) or about copyright related initiatives at international level (73%) and neither about the exceptions and limitations related to copyright (71%). For the sample, to learn about copyright related initiatives at national level is only important for 37%. A specific aspect, as copyright issues regarding the development of institutional repositories, is relevant to be included in LIS curriculum only for 41% of the students. One hot topic at the moment, copyright issues related to open access and open data, should be included in LIS plan course for 46% of the sample. Creative Commons Licences, copyright issues regarding digitization and copyright related law at international level all score 48% of the students considering them as important subjects to study previous to start working in information services.

| Please specify the topics/issues you think LIS students should learn before they graduate and start working in a cultural heritage institution | No | Yes |
|---|---|---|
| **Copyright related law – national level** | 41% | 60% |
| **Copyright related law – international level** | 52% | 48% |
| **Copyright related institutions – national level** | 53% | 47% |
| **Copyright related institutions – international level** | 66% | 34% |
| **Copyright related initiatives – national level** | 63% | 37% |
| **Copyright related initiatives – international level** | 73% | 27% |
| **Copyright related information sources** | 49% | 51% |
| **Clearing right holder/s** | 56% | 44% |

| | | |
|---|---|---|
| **Licensing for information sources (e.g. for digital resources – data bases etc.)** | 51% | 49% |
| **Copyright issues regarding the development of institutional repositories** | 60% | 41% |
| **Copyright issues/solutions regarding virtual services within e-learning practices** | 65% | 35% |
| **Creative Commons Licenses** | 52% | 48% |
| **Copyright issues related to open access, open data** | 54% | 46% |
| **Fair Use** | 56% | 44% |
| **Copyright issues regarding digitization** | 52% | 48% |
| **Copyright issues/solutions regarding materials from public domain** | 57% | 43% |
| **Copyright issues/solutions regarding out-of-print works** | 66% | 34% |
| **Copyright issues/solutions regarding orphan works (works whose owner/s can not be identified or located)** | 75% | 25% |
| **Exceptions and limitations related to copyright** | 71% | 29% |
| **Other** | 0% | 0% |

**Table 5: Topics/issues that LIS students think they should learn before graduating and start working in information services (Q13)**

Data collected about the knowledge level and the understanding of copyright relevance in their graduating curriculum from a sample of Portuguese LIS students point of view were presented in this section. This approach allows a picture about copyright issues in Portuguese LIS courses at degree and master level. However, it is important to analyze and discuss these data with other relevant case studies from other countries to have a more complex and critical understanding of Portuguese situation.

### 4. Discussion

Portugal overall results showed a medium awareness of copyright issues from LIS students, which need to be improved as these issues seem not be fully included in curriculum and because students seem not to be aware about its relevance in professional context. An analysis of the results from other countries can be a good way to better Portuguese situation.

On the level of knowledge about items covered by copyright, Portuguese students showed the need to learn more about these topics. These results are aligned with data collected in Czech Republic, where students often incorrectly choose what is under copyright protection (Kovávrová, 2019). In Iceland, with the same survey, data collected were quite different (Pálsdóttir, 2019). In a sample of LIS graduate students, all of them were able to indicate that eight items are protected by copyright and almost all of them (around 90%) also

recognize more four items. They were more unsure about databases, as 27% considered that they were not protected by copyright law.

Portuguese students also showed knowledge gaps on the issues included in national copyright legislation. Comparing again with Iceland results (Pálsdóttir, 2019), despite the fact that a higher number of Icelandic students choose the good answer, it is interesting to underling that in the two countries the option that scores most was the duration of copyright protection (90,91 %, in Iceland, and 64,6%, in Portugal).

The students self-reported familiarity of copyright issues shows that they do not consider themselves familiar with this area. Copyright and related law at national level is the aspect in which students reported to be most familiar (58,2%) as all the others options ranked less than 50%. These results are quite in line, but even a little worst, with USA collected data where students do not have a high level of familiarity with most of copyright areas (Saunders & Estell, 2019). Fair use (83%) and Creative Commons (71%) are the two topics in which American LIS students reported more familiarity and national copyright law ranked third (66%). These results are in line with the awareness of fair use (96,1%) and Creative commons licensing (70,3%) by American librarians found by Charbonneau & Priehs (2014). On contrary, in Portugal, fair use (24,1%) and Creative Commons (38%) are familiar to a few students. In Norway, Gastinger & Landøy (2019) found that LIS students were mainly familiar with copyright and related law in national level (89,1%) and to Creative Commons (76,1%). The topics in which they were less familiar included copyright issues regarding materials from public domain (21,7%) and copyright related institutions on international level (23,9%). These differences can be connected to the topics learned during the graduation or master course, and also because of the graduation year in which they were enrolled when they answered the survey.

According to Portuguese results, we can not state, on contrary as Kovávrová did (2019), for Czech Republic, that students felt open to being educated on copyright issues or that they perceived copyright importance for information services/work. Indeed, an overwhelming majority contested that they have not received training in 14 topics of copyright area and only a small majority think that LIS students should learn one of the 19 issues related to copyright. Anyway, we have to consider that having formal education on copyright in LIS courses is not a rule. Schmidt & English (2015) showed that 45% of a sample of 495 American information professionals reported none of the classes they took during their degree addressed copyright/intellectual property.

About the topics/issues in which Portuguese students have been educated, it is possible to see noteworthy differences comparing to other countries results. In Norway, a majority of students stated they had formal education on four topics (Gastinger & Landøy, 2019). In Czech Republic, more than three-quarters of respondents stated that they were not educated in six of the 19 topics and more

than half of respondents in ten other topics (Kovávrová, 2019). For the USA, Saunders & Estell (2019) argue that instruction in copyright topics is minimal because only three topic areas were reported as covered by more than half of the students. In Portugal, the majority of the respondents stated for all the 19 options that they never received training. This seems to be a good opportunity for Information Science departments to include copyright issues in programs of study they offer. This kind of study is also a good insight to highlighting specific copyright-related topics for the delivery of copyright training to help guide new information professionals development efforts (Charbonneau & Priehs, 2014).

On the topics that LIS students think they should learn before graduating and start working in information services, Portuguese students seem not to perceive the relevance of copyright topic as only two issues were chosen by a small majority of the sample to be included in curriculum. The results are quite different from USA, where Saunders & Estell (2019) found that , although a little variation, more than half of respondents indicated that students should receive instruction in 17 o of the 19 listed copyright topics. In Czech Republic, Kovávrová (2019) stated that students were convinced of the importance of most of the copyright topics to be included in LIS curriculum. Furthermore, students would welcome the extension of their education in copyright education, especially in the international context and more detailed solutions of practical issues, as digitization or e-learning. It should also be stated that the Portuguese students' opinion is not in line with Portuguese information professionals which stated in a previous study with an overwhelming majority (88,2%) that matters related to copyright and intellectual property should be included in LIS curriculum (Terra, 2016).

## 5. Conclusions

As new technologies make it easily possible to mix, remix, and share information publicly, understanding the legal use of information is an essential skill for information professionals in their daily work. Considering that, copyright instruction of LIS students is an important aspect of bachelor and master plan courses provided by Information Science departments. However, Portuguese survey results about LIS students copyright show that do not feel particularly aware of the importance copyright issues and neither mind open to study this area. Attending to that, it seems that one major discussion about the best approach for addressing copyright education in LIS programs should be undertake. It could be important to combine a law perspective strongly integrated with an Information Science positioning, using practical cases related to information services and information technologies, including problem-solving scenarios or class discussions, complemented by lectures. As Rodriguez, Greer, & Shipman (2014) underlined copyright in itself is often a dry subject and it is important to focus on relating the content as much as possible to the specific needs of the users. Offering a modules course, based on a learning management system, with a quiz at the final of each module could be an option.

As Portuguese results are part of an international survey, results and practices on copyright education of LIS students from other countries could give valuable insights to improve national current situation.

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