# Copyright Literacy of Library and Information Science Students in the United States

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Copyright has an impact on nearly every aspect of the information professions, from developing collections to creating local policy and educating patrons. Given the apparent importance of copyright to information professionals, it is crucial that librarians and other information professionals be prepared for copyright-related responsibilities through their degree programs and that they be comfortable in their knowledge of copyright issues. However, there is limited research on the copyright literacy of librarians, relying mostly on their self-perceptions of their copyright literacy, and virtually no research on the copyright knowledge or training of LIS students. The current study expands upon previous research by surveying LIS students to determine how familiar they believe they are with certain copyright topics, and to explore their subjective sense of professional preparation with regard to copyright law and practice. The results of this study will be of interest to library managers interested in the copyright knowledge and preparation of emerging professionals and might also inform curricular decisions for LIS programs interested in ensuring adequate preparation for their students.

**Keywords**: copyright, copyright literacy, curriculum, LIS education

Copyright has an impact on nearly every aspect of the information professions, from developing collections to creating local policy and educating patrons. Librarians and other information professionals must comply with copyright as they build and share their collections, including lending materials through interlibrary loan and patron reserves. Copyright issues affect vendor contracts as libraries license, rather than purchase, much of their digital material. Librarians also help their patrons navigate copyright as they access, reproduce, use, and even create materials. Distance and online education, preservation, and the creation of accessible formats are other activities common in libraries that should trigger a consideration of copyright law (Estell, forthcoming). Academic and school librarians indicate that they spend substantial amounts of instruction time on copyright, as well as related topics such as plagiarism and citing sources (Saunders, Severyn, & Caron, 2017), and Albitz (2013) finds that the majority of copyright-related activities on campuses are centered on the library.

Given the apparent importance of copyright to information professionals, it is crucial that librarians and other information professionals

**KEY POINTS**

- Familiarity with copyright law and standards is a crucial skill for information professionals across settings, but it is unclear how well prepared emerging professionals are in this area.

- Findings of a survey of current LIS students show wide variation in knowledge, with most knowledge concentrated on national organizations and common areas such as fair use.

- Copyright education varies widely and could be strengthened.

be prepared for copyright-related responsibilities through their degree programs and that they be comfortable in their knowledge of copyright issues. Indeed, copyright is so central to libraries that McDermott (2012, p. 16) refers to librarians as "accidental copyright czars" and insists that they cannot afford to be uninformed on this topic. Previous research suggests that the majority of professional librarians consider themselves to be at least somewhat familiar with copyright issues and law, especially at the institutional and national levels, although they are less certain about international copyright and more current issues such as open licensing and orphan works (Estell & Saunders, 2016). However, that research was limited to practicing librarians and relied on their self-perceptions of their copyright literacy. The current study expands upon previous research by surveying library and information science (LIS) students to determine how familiar they actually are with certain copyright topics and to explore their professional preparation with regard to copyright law and practice. The results of this study will be of interest to library managers interested in the copyright knowledge and preparation of emerging professionals and might also inform curricular decisions for LIS programs interested in ensuring adequate preparation for their students.

## Literature review

Information professionals are expected to be familiar with and comply with copyright laws and guidelines and are often called upon to determine copyright restrictions, instruct patrons in copyright matters, and set local policy. The American Library Association (ALA) acknowledges the importance of copyright to the profession, including it as an area of foundational knowledge in its core competencies statement. According to the ALA (2009, point 1G), all people graduating from an ALA-accredited program should be able to employ "[t]he legal framework within which libraries and information agencies operate. That framework includes laws relating to copyright, privacy, freedom of expression, equal rights (e.g., the Americans with Disabilities Act), and intellectual property." Although it does not specify copyright per se, the Society of American Archivists Guidelines for Graduate Education indicates that "archival core knowledge incorporates the origin, development, structure, and functioning of legal

and financial systems," including "a wide variety of intellectual property rights, display and performance rights, and literary rights related to recorded material in all forms" (SAA, 2016). Similarly, the Association of College and Research Libraries listed copyright knowledge as one of 10 top trends for academic librarians for 2016, especially as it relates to open education resources (ACRL, 2016), and the Special Libraries Association lists knowledge of copyright and intellectual property as part of its core competency of information ethics (SLA, 2016). These statements all underscore the importance of copyright knowledge across the information professions.

Librarians report engaging in a variety of activities related to copyright in their day-to-day jobs. In a survey of 495 librarians in a variety of information settings, Schmidt and English (2015) found that the majority reported dealing with issues related to copyright frequently or sometimes. Among academic librarians specifically, over 90% report dealing with copyright (Charbonneau & Priehs, 2014). Some of the most common activities reported by these respondents were making copies or scans of materials; using copyrighted materials in the classroom, projects, or publications; digitizing library materials; obtaining permission to use copyrighted materials; applying fair use guidelines; educating students and others about copyright; and posting materials to websites, course reserves, and institutional repositories (Schmidt & English, 2015). Among the most common copyright-related issues for academic librarians are plagiarism, technology transfer, and piracy (Albitz, 2013). In addition to answering patron questions regarding copyright and related issues such as fair use, some academic librarians are developing copyright-education courses or otherwise integrating copyright instruction into their information literacy programs (Rodriguez, Greer, & Shipman, 2014). An analysis of questions submitted to the Ohio State University Health Science Library's copyright management office showed heavy reliance on librarians to provide expertise on questions ranging from permissions to fair use to licensing and scholarly publishing, leading the authors to suggest a need for librarians to develop copyright literacy (Gilliland & Bradigan, 2014). Reference librarians report copyright as the most common ethical dilemma with which they deal, generally related to user requests or actions that go against copyright law such as photocopying more material than is allowed, or requesting course reserves without proper clearance (Luo & Trott, 2016).

In a study of copyright officers in the Consortia on Institutional Cooperation, Albitz (2013) found that the majority of copyright activities are located in the university library. Respondents were involved in a range of responsibilities, including providing information and instruction on copyright-related issues, helping to set copyright policy, and advocating for the broadest definition of copyright to support research, teaching, and learning. Most respondents to her survey agreed that these activities best belonged in the library as opposed to a general counsel's or provost's

office. Albitz found that the most common degree held by the copyright officers was an MLS, although most respondents believed that a JD would be helpful in the position. Based on her findings, Albitz concluded that "librarians have, either intentionally or by default, become clearinghouses for information about appropriate use of copyrighted content, despite the fact that very few librarians are trained in the law" (p. 429) and asserted that professionals in copyright positions should be required to hold a JD rather than an MLS.

Similarly, in a study of over 2,000 jobs posted on ALA's *Joblist* from 2006–2013, Kawooya, Veverka, and Lipinski (2015) found that 264 jobs mentioned copyright in either the title or the text of the job description. Interestingly, none of those jobs with a copyright component listed a JD as a requirement, and only five specified the JD as a preferred qualification. However, all of the job ads included the MLS degree as a requirement. The authors noted a steady increase in jobs including copyright responsibility, leading them to assert that "the copyright librarian or competence in copyright is a prerequisite for current and future needs of academic libraries and academic institutions in general" (Kawooya et al., 2015, p. 341). Further, the authors predicted a continued increase as jobs related to institutional repositories and scholarly communication continue to grow, such that "copyright and related areas will remain important areas for academic library hiring in the near to distant future" (p. 347). Given these trends, the authors recommended increased instruction in copyright in graduate level LIS programs.

However, the research suggests that attention to copyright in LIS programs is uneven. Although not confined to copyright, in a study of LIS curricula, Cross and Edwards (2011) found that 73% of ALA-accredited programs offered courses that dealt explicitly with law or legal issues. However, the majority of programs offered only one such course, and fewer than a quarter offered two or more classes. Of more concern, the authors found that none of the programs required a law-related course, and 12 programs had no courses that dealt explicitly with law. Furthermore, there were relatively few full-time faculty with a JD or other legal background. Many relied on adjuncts or joint appointments with law-school faculty in order to provide legal expertise. As a result, the researchers claimed that there are "significant pedagogical shortcomings in the way of teaching LIS graduate students about the law" and that "one class on copyright taught by an adjunct professor from the law school will not necessarily prepare LIS students" (Cross & Edwards, 2011, p. 540). This assertion is supported by the fact that fewer than 11% of library deans and directors agreed or strongly agreed that MLS programs are adequately training emerging professionals (Eye, 2013).

A later study focused exclusively on copyright education found that no ALA-accredited program had a required course on copyright or intellectual property (Schmidt & English, 2015), although nine schools did have

a required course that included a copyright component. The availability of copyright instruction varied. Although 42 schools had at least one elective that included a copyright component and 11 schools had a full course devoted to copyright, six institutions appeared not to have any courses that addressed copyright at all. The study authors also surveyed librarians to learn more about their copyright training. Of 420 respondents, just over half (55%) said they took at least one course during the LIS program that addressed copyright, but just under half (45%) said they did not take any courses on copyright. Similar to Cross and Edwards (2011), Schmidt and English (2015, p. 743) concluded that copyright instruction "is not widespread enough, nor in depth enough to prepare LIS program graduates for the current demands of the workplace. This lack of preparation, coupled with an absence of guided on-the-job training, leaves librarians unsure of their abilities to competently guide their libraries and their users in the use of copyrighted content."

This apparent lack of instruction seems to be reflected in the fact that many librarians report a lack of knowledge of or confidence with copyright. In one national survey of academic librarians, about half said they were comfortable with their knowledge of current copyright policy, but only just over 7% were very comfortable, and almost 40% stated they would like more training in the area (Charbonneau & Priehs, 2014). In another study, the vast majority of librarians across information settings rated their copyright knowledge as intermediate or novice, and the researchers indicated that open-ended comments "highlighted a lack of confidence in their knowledge level, no matter what rating they chose" (Schmidt & English, 2015, p. 740). Even those who had copyright instruction in their LIS programs reported that what they learned in those classes was either slightly or much less than they needed for their jobs (Schmidt & English, 2015). Another national survey of library professionals found that more than half reported being moderately to extremely aware of copyright issues, but their self-reported knowledge varied widely across different areas (Estell & Saunders, 2016). Overall, these librarians were most comfortable with local and national copyright laws and standards and with areas related to fair use, public domain, and Creative Commons licenses. They reported much less familiarity with issues such as orphan works, collective rights management, or the term "copyleft," in which authors and creators make their work freely available (Estell & Saunders, 2016). Eye (2013) surveyed library deans and directors and found that they scored an average of 77.5% correct on 10 questions of copyright knowledge. As with Estell & Saunders (2016), knowledge varied across areas. Deans and directors scored best on questions related to copying and selling copyrighted works, understanding that simple facts are not copyrighted and defining fair use. They scored less well on questions about copyright exemptions and understanding how to apply the fair use guidelines (Eye, 2013).

The current LIS literature confirms that information professionals across settings deal frequently with copyright issues and that jobs involving copyright responsibilities seem to be increasing. The research also indicates that instruction in copyright is variable across LIS programs but that in general such instruction is limited, and no program requires a course on copyright as part of a graduation requirement. Perhaps as a result of limited instruction, many professional librarians report a lack of familiarity with copyright law and express a desire for more training. However, aside from Eye's (2013) study of library deans and directors, most studies rely on self-reporting of knowledge, and all of the current studies focus on library professionals who have already completed their degree.

This study seeks to fill a gap in the literature by surveying current LIS students about their knowledge of and instruction in copyright issues, and to test their actual knowledge with several fact-based questions.

## Procedures

The purpose of this study was to examine LIS students' actual and perceived knowledge of various aspects of copyright, including knowledge of specific aspects of copyright law as well as self-reported familiarity with copyright-related issues such as fair use, Creative Commons licensing, and open access. Specifically, this study sought to answer the following questions:

- How accurately can LIS students identify specific aspects of copyright law and specific materials covered by copyright?
- How familiar do LIS students perceive themselves to be with certain copyright-related issues?
- In what copyright-related areas are LIS students receiving instruction within their LIS programs?

Although this article reports only on findings from the United States, it is actually part of a larger international study. Researchers from Bulgaria, France, and Turkey developed and piloted a survey for this study in the winter of 2017. These preliminary studies helped to establish the reliability and validity of the data collection instrument. The original research team then invited colleagues from around the world to redistribute the survey in their own countries, but allowed for only minimal editing of the survey questions themselves. A copy of the survey appears in the Appendix. Data from the other participating countries are still being analyzed, and the researchers hope to share the comparative international results in a future publication. The authors of this study joined the research team in May 2017 and conducted data collection in the fall of 2017.

Because the aim of this study was to set a broad baseline of student knowledge and perceptions, it was determined that the survey should be distributed nationally. Restricting the sample to a particular geographic region or institution would reflect only local experiences that could not

be generalized. One of the study authors is an iSchool faculty member and was able to distribute the survey directly to the entire LIS student body at her institution. In order to reach students at other institutions, the authors decided to contact the deans or directors of the top ALA-accredited LIS programs in the United States, as ranked by *U.S. News & World Report* (2017) and ask them to distribute the survey to their students. At the time, three schools were tied for placement in the rankings, bringing the total number of schools within the top 10 to 13. The researchers chose to base the study on the *U.S. News & World Report* schools because it was hoped that, as top-ranked programs, these schools would be leaders in LIS education and that their curricula in areas like copyright would help to establish a model or best practices that could be followed by other iSchools. Because of the time-intensive nature of contacting and coordinating with each school, the researchers originally decided to limit themselves to the top 10 schools in order to keep the distribution manageable. Furthermore, the researchers had already briefly reviewed the copyright-related curricula of these schools for a previous study (Estell & Saunders, 2016), so it made sense to continue to explore those same institutions.

The authors sent an introductory email to the 13 deans and directors in June 2017, explaining the purpose of the study and emphasizing that the survey was completely anonymous, no personally identifying information would be collected from participants, and all data would be kept private and confidential. Deans and directors were encouraged to contact the researchers if they had questions or were interested in participating. In the meantime, the researchers obtained IRB clearance for the survey from their home institution. In November 2017, the researchers contacted the 13 deans and directors again. This email reminded them of the purpose of the study, indicated that the researchers had obtained IRB approval, and provided the deans and directors with a link to the survey that they could distribute to their student bodies. When accessing the survey, the students were first given an explanation of the purpose of the study and the voluntary nature of participation, assured that their data would be anonymous and kept private and confidential, and provided with the name and contact information of one of the researchers and the home institution's IRB officer if they had questions. The survey was closed on December 13, 2017.

## Limitations

This study has a number of limitations that should be addressed. To begin with, despite its national distribution, the survey received only 94 responses. Not only is the sample size itself negligible, but the responses came from only three institutions and, of those, three-quarters of the respondents were from a single institution. As such, the responses are not generalizable and cannot be seen as representative of LIS students in general. Further, it is always important to note the possibility of response bias. Participation in the survey was voluntary, and there was no incentive

for participation. It is conceivable that the students who chose to take the survey were particularly interested in or knowledgeable about the topic of copyright, possibly skewing the results to be more positive.

Another limitation to the current study of students in the United States was the requirement that survey questions be kept consistent across the international administration of the study. This constraint resulted in questions with wording that was sometimes stilted to American ears, sometimes obfuscating or misleading, and not always targeted to the most important concepts addressed by US copyright law. It also contributed to the challenge of getting at students' actual copyright knowledge, to the extent that this was probed in the survey. Despite the limitations, the results of this study are still interesting and suggestive and can provide some insight into the actual and perceived copyright literacy of one particular group of LIS students. Further, the current study's findings provide a baseline against which future studies can be measured. Future research should try to cast a wider net for respondents and to more finely articulate questions that represent US copyright law more precisely and accurately.

## Findings

In total, 94 students from three LIS programs completed the survey. Of these, 82% were female, 9% were male, and 10% chose not to disclose their gender. Three respondents were PhD candidates, and the rest were at the master's level.

A total of 19 factual questions tested students' actual knowledge of copyright law. The first section of questions asked students to identify whether certain materials fall under copyright protection. A smaller set of questions asked students to identify whether certain topics are covered under US copyright legislation. Student scores on the factual part of the survey ranged from a high of 100% to a low of 53%. Five students scored 100%, while two scored 53%. The median score was 84% and the average score was 83%. Overall, students scored fairly well, although the proportion of correct answers did vary across questions. For example, 100% of the students correctly identified "published materials such as books and articles" and films as covered by copyright protection. Another 98% correctly identified both musical works and "caricatures and comics" as protected materials. Students also scored reasonably well on the following areas: 96% correctly identified graphical works as protected; 94% correctly identified "photos, maps, and sketches" as protected; 93% correctly identified both "art works such as paintings and sculptures" and computer software as protected; and 86% correctly identified architectural projects as protected. Finally, 83% correctly identified dance and written choreography as protected, and 82% understood that unpublished works such as these are protected.

Students were less sure about certain other topics, however. For example, only 72% believed databases to be protected by copyright law. Finally,

**Table 1: Identifying copyrighted items: Percent correct**

| Answer | % Correct |
|---|---|
| Published materials (such as books and articles) | 100 |
| Films | 100 |
| Musical works | 98 |
| Caricatures, cartoons, and comics | 98 |
| Graphical works | 96 |
| Photos, maps, and sketches | 94 |
| Art works such as paintings and sculptures | 93 |
| Computer software | 93 |
| Architectural projects, maquettes, environmental design, and stage design projects | 86 |
| Dances, written choreography, pantomime | 83 |
| Unpublished works such as theses | 82 |
| Ideas | 73 |
| Databases | 72 |

ideas cannot be protected by copyright, although they can be patented, because copyright is applied only to tangible expressions. Nevertheless, only 73% of respondents understood that ideas are not protected by copyright. With regard to the topics addressed in copyright legislation, the proportion of correct responses varied again. Students scored best with regard to duration of copyright, with 88% correctly identifying that the US Copyright Act of 1976 includes the duration of copyright protection. Beyond that, 74% correctly identified that the Act includes exceptions for private use, educational, scientific, and research purposes; and 66% correctly identified that the Act includes exceptions for libraries and archives. Barely more than half (51%) knew that the Act includes exceptions for libraries to provide modified copies of works to meet the needs of blind patrons or people with low vision. Tables 1 and 2 show the answers and percentage of correct responses for this group of questions.

The next set of questions asked students to self-report their familiarity with various aspects of copyright law and practice, or outlets of copyright information. Responses varied widely here, indicating that students do not have a high level of familiarity with most of these areas. Fair use was the most recognized area, and still only 83% of students reported being familiar with fair use guidelines, followed by 71% who were familiar with Creative Commons licenses, and 66% who reported being familiar with national copyright law. Fewer than two-thirds of students reported being familiar with any of the other areas. For example, only 56% said they were

**Table 2: Identifying aspects of copyright law: Percent correct**

| Answer | % Correct |
|---|---|
| Duration of copyright | 88 |
| Exceptions for libraries, educational institutions, museums, and archives | 66 |
| Exceptions for private use, educational, scientific, and research purposes | 75 |
| Rights for librarians to provide modified copies of works to serve the needs of visually impaired patrons | 51 |
| Orphan works (e.g., compulsory license or limitation of liability) | 45 |

familiar with issues related to works in the public domain, and only 47% are familiar with issues related to digitization of materials. Students also reported low levels of familiarity with copyright issues related to open access and open data (46%), out-of-print works (37%), licensing for digital information and databases (35%), and national institutions related to copyright (33%). Some of the lowest levels of familiarity were related to issues with developing institutional repositories (20%), clearing rights (16%), international copyright law (7%), and international copyright institutions (4%). Table 3 illustrates students' reported familiarity with each of the copyright areas.

After gauging students' knowledge of and self-reported familiarity with certain copyright topics, the survey then asked students to report whether they had received training on particular copyright topics in their programs of study. The results demonstrated that instruction in copyright topics is minimal across the board. In fact, only three topic areas were reported as covered by more than half of the students: fair use (69%), Creative Commons licenses (59%), and copyright-related law at the national level (53%). Barely one-third of students reported that copyright issues related to digitization were covered in their programs. Fewer than one-third of respondents had received any training on any of the other topics. Some of the least-covered topics included clearing rights holders (10%), copyright institutions at the international level (2%), and copyright-related law at the international level (1%). No students reported receiving instruction on copyright initiatives at the international level. Table 4 shows the percentage reporting having received instruction on each copyright topic.

Another section of questions asked students to indicate areas of copyright in which they believed students should receive instruction before working in the information fields. Although there was a little variation, more than half of respondents indicated that students should receive instruction in all but two of the copyright topics. Topics related to copyright at the international level were the least popular. Just over half (53%) of respondents believed that students should receive training

**Table 3: Self-reported familiarity with copyright issues and institutions**

| Issue or area | % reporting familiarity |
|---|---|
| Fair use | 83 |
| Creative Commons | 71 |
| National copyright law | 66 |
| Copyright issues/solutions regarding materials from public domain | 56 |
| Copyright issues regarding digitization | 47 |
| Copyright issues about open access, open data | 46 |
| Copyright issues/solutions regarding out-of-print works | 37 |
| Licensing for information sources (e.g., for digital resources—databases etc. | 35 |
| Copyright related institutions—national level | 33 |
| Copyright issues/solutions regarding orphan works (works whose owner/s cannot be identified or located) | 30% |
| Copyright issues/solutions regarding virtual services within e-learning practices | 21 |
| Copyright issues regarding the development of institutional repositories | 20 |
| Clearing right holders | 16 |
| Copyright and related law—international level | 7 |
| Copyright related institutions—international level | 4 |

on international copyright law, and only 46% said they should receive instruction on international copyright institutions. International copyright initiatives received the lowest ranking, with only 44% saying that students should receive instruction in this area. More than two-thirds of respondents indicated that students should receive instruction in 15 areas related to copyright. These included national copyright law (92%), fair use (90%), copyright issues regarding digitization (88%), issues related to works in the public domain (85%), exceptions and limitations to copyright (83%), copyright issues related to open access and open data, and related to Creative Commons licenses (81% each), copyright issues regarding out-of-print works, and copyright-related information resources (80% each), national copyright-related institutions, and issues related to orphan works (78% each), licensing for information sources (77%), issues related to developing institutional repositories (74%), national copyright initiatives (72%), and issues regarding virtual services and e-learning practices (66%). Table 5 illustrates the full list of copyright areas and the percentage of respondents saying LIS students should receive instruction in these areas.

**Table 4: Percentage who have been trained on copyright topics in LIS programs**

| Issue or area | % reporting receiving training |
|---|---|
| Copyright-related law—national level | 53 |
| Copyright-related law—international level | 1 |
| Copyright-related institutions—national level | 26% |
| Copyright-related institutions—international level | 2 |
| Copyright-related initiatives—national level | 22 |
| Copyright-related initiatives—international level | 0 |
| Copyright-related information sources | 27 |
| Clearing rights holder/s | 10 |
| Licensing for information sources (e.g., for digital resources—databases etc.) | 23 |
| Copyright issues regarding the development of institutional repositories | 15 |
| Copyright issues/solutions regarding virtual services within e-learning practices | 16 |
| Creative Commons licenses | 59 |
| Copyright issues related to open access, open data | 32 |
| Fair use | 69 |
| Copyright issues regarding digitization | 33 |
| Copyright issues/solutions regarding materials from public domain | 29 |
| Copyright issues/solutions regarding out-of-print works | 14 |
| Copyright issues/solutions regarding orphan works (works whose owner/s cannot be identified or located) | 22 |
| Exceptions and limitations related to copyright | 32 |

Respondents were also asked to indicate whether they agreed or disagreed with a series of statements related to copyright knowledge and education. Ninety-one respondents (97%) agreed that librarians must be knowledgeable about copyright issues. No respondents disagreed with that statement, and only two were neutral. In addition, 94% agreed that it is necessary to include training on intellectual property and copyright in the LIS curricula. Ninety percent of respondents indicated that training on copyright for librarians should take place at the master's level, while 53% indicated that it should take place at the PhD level. It is important to note that these answers were not mutually exclusive. That is, respondents could choose both answers, and, in fact, a majority of respondents seemed to believe that copyright instruction should take place at both levels.

**Table 5: Percentage who believe LIS students should receive training in certain areas**

| Issue or area | % who believe LIS students should receive training |
|---|---|
| Copyright-related law—national level | 92 |
| Copyright-related law—international level | 53 |
| Copyright-related institutions—national level | 78 |
| Copyright-related institutions—international level | 46 |
| Copyright-related initiatives—national level | 72 |
| Copyright-related initiatives—international level | 44 |
| Copyright-related information sources | 80 |
| Clearing rights holder/s | 62 |
| Licensing for information sources (e.g., for digital resources—databases etc.) | 77 |
| Copyright issues regarding the development of institutional repositories | 74 |
| Copyright issues/solutions regarding virtual services within e-learning practices | 66 |
| Creative Commons licenses | 81 |
| Copyright issues related to open access, open data | 81 |
| Fair use | 90 |
| Copyright issues regarding digitization | 88 |
| Copyright issues/solutions regarding materials from public domain | 85 |
| Copyright issues/solutions regarding out-of-print works | 80 |
| Copyright issues/solutions regarding orphan works (works whose owner/s cannot be identified or located) | 78 |
| Exceptions and limitations related to copyright | 83 |

A final series of questions asked students which sources they turn to when they want to learn more about copyright. The most popular source of copyright information is websites, with 83% of respondents saying they use websites to learn more about copyright, closely followed by books and articles at 80%. Librarians and LIS faculty are also popular resources, at 69% and 53% respectively. Somewhat less popular are national copyright offices (50%), lawyers (43%), professional discussion lists (39%), blogs and wikis (35%), and national library associations (34%). The least popular resources were the International Council of Museums (12%) and the Electronic Information for Libraries Network (9%). Table 6 shows

**Table 6: Sources LIS students use for copyright-related information**

| Source | % who would consult source |
|---|---|
| Librarians | 70 |
| Lawyers | 43 |
| Books and articles | 80 |
| Websites | 83 |
| Blogs and wikis | 35 |
| Professional discussion lists | 39 |
| National Copyright Office | 50 |
| World Intellectual Property Organization (WIPO) | 27 |
| Electronic Information for Libraries Network (eIFL) | 9 |
| International Federation of Library Associations and Institutions (IFLA) | 19 |
| International Council of Archives (ICA) | 16 |
| International Council of Museums) ICOM | 12 |
| National Library Association(s) | 34 |
| LIS (Library and Information Science) faculty | 53 |

the percentage of students indicating they would consult each of the resources.

## Discussion

Overall, students fared quite well on the factual section of the survey. In fact, the average score of the LIS students participating in this study was 83%, which would equate to a B grade, and is substantially higher than the 77.5% scored by library deans and directors in Eye's (2013) study. Only 15 students (16%) would have failed had this been an actual test. Interestingly, in both studies, respondents seemed to do better at identifying whether certain items and materials are copyrighted, and somewhat less well on questions related to interpretation and application of copyright rules and guidelines. For example, 99% of people in Eye's study knew that simple facts are not copyrighted, and over 80% understood that government publications are generally not copyrighted. As noted above, the LIS students' scores were similarly high in identifying whether specific materials are copyrighted. However, both groups performed less well when asked questions about exceptions to copyright and application of fair use. For example, only 55% of people in Eye's study knew that the four factors of fair use do not all need to be met in order for a specific instance to be considered fair use, and only 50% correctly identified a scenario as qualifying as an exemption

for performances and displays. These findings suggest that application of copyright law in practice might be an area for iSchool programs and professional associations to develop additional curricula and training.

Similarly, barely two-thirds of LIS students correctly answered that the US Copyright Act of 1976 includes certain exceptions for libraries, educational institutions, and archives, and barely half (51%) knew that the Act allows exceptions for some libraries to provide modified copies of works for vision-impaired patrons. Indeed, the Copyright Act of 1976 (17 U.S. Code § 108) allows libraries and archives certain limited rights to reproduce a single copy of a work and distribute that copy without permission, for the purposes of preservation, replacement (due to damage, loss, or format obsolescence), and research. Such exceptions are critically important and form the basis of many library services such as interlibrary loan, preservation, digitization, and creation of institutional repositories. Likewise, the exception for modifying works to create accessible formats for persons with disabilities is extremely important. If information professionals are not aware of these exceptions, they might deny people access to resources unnecessarily—and possibly illegally.

While the factual part of the survey showed relatively strong knowledge on many specific and discrete copyright questions, students' self-reported familiarity with broader copyright topics was more varied. LIS students showed strong familiarity with certain common or traditional copyright topics such as fair use, Creative Commons licenses, and works in the public domain, but much lower familiarity with other topics, including licensing, clearing rights, orphan works, and issues related to developing an institutional repository, as well as all areas related to international copyright law and institutions. This breakdown is similar to Estell and Saunders's (2016) study of professional librarians, who also reported greater familiarity with national copyright law over international, especially fair use. However, professional librarians reported strong familiarity with certain issues, including licensing, open access, and digital institutional repositories, with which students reported being largely unfamiliar.

If professional librarians' perceived familiarity with certain copyright topics is accurate, the findings of the current study suggest that they are learning about those topics on the job, rather than in library school. Indeed, it has been argued that, because of the nature of copyright law, librarians will need to continue to direct their own learning on this subject throughout their careers (Estell, forthcoming); nevertheless, information professionals would undoubtedly benefit from a grounding in the basic legal concepts and accepted best practices of copyright before starting their careers. The LIS students who responded to this survey report very low levels of instruction in copyright. In fact, out of the 19 topic areas listed, there were only three topics in which at least half of students indicated that they had received instruction in library school. Of the remaining 16 topics, fewer than a third of LIS students reported having received

instruction in any of them. Given the centrality of copyright to the profession, and the extent to which librarians indicate that they deal with copyright-related issues and questions in their day-to-day work, it is crucial that LIS students receive training in these areas in order to be prepared for their professional work.

Indeed, the results of Tables 1 and 2, which show the percentage of correct answers to factual copyright questions along with the self-reported familiarity in Table 3, seem to align with Table 4, which shows percentage of participants who say they have received copyright training in their LIS programs. The students report the highest levels of familiarity with areas such as fair use, national copyright law, and Creative Commons, which are also the areas in which the largest proportion of respondents report having received training. Students also scored well on factual questions related to these areas. On the other hand, students performed less well on questions related to areas such as orphan works and exceptions to copyright, which are also areas in which they report receiving less training. In line with those findings, students report lower levels of familiarity with those areas. Overall, these findings clearly suggest a need for increased training in these areas in order to increase knowledge and overall familiarity and comfort with these topics. iSchools might develop courses to address copyright topics in more depth, or might integrate greater attention to copyright topics throughout the curricula. Professional associations might offer workshops and other professional development training related to copyright.

Students' apparent lack of knowledge of these topics coupled with the lack of instruction in LIS programs is concerning not just because they are important topics generally, but because many of them have been identified as growth areas, especially in academic library hiring. In its 2017 salary survey, *Library Journal* identified emerging areas of the field, including digital content and asset management, creating and maintaining digital repositories, electronic resource management, instruction or e-learning, and scholarly communications positions, including those focused on open access (Allard, 2017). Many of these job areas would explicitly or implicitly involve knowledge of copyright. For example, managing electronic resources involves negotiating and implementing licensing agreements. In order to create and manage institutional repositories, librarians must understand intellectual property and copyright law in order to ensure that materials included in the repository do not violate those laws, and they will often need to educate faculty and students on proper deposit and use of materials. Similarly, librarians supporting online learning programs must manage copyright and intellectual property questions related to the creation of original material and the posting and sharing of third party materials. As Kawooya et al. (2015) note, as these areas of librarianship continue to grow, so will demand for copyright literacy. Therefore, the findings of this study broadly seem to support the assertions of

Charbonneau and Priehs (2014), Schmidt and English (2015), and Cross and Edwards (2011), namely that current instruction in copyright issues in LIS programs is inadequate.

Finally, the criticality of increased copyright training is underscored by the findings laid out in Table 6. Those findings show that LIS students are highly likely to turn to librarians with copyright questions, which is similar to professional librarians, 68% of whom said they turn to colleagues (Estell & Saunders, 2016). This suggests that librarians themselves expect their colleagues to be knowledgeable in this area. Somewhat troublingly, LIS students were quite unlikely to turn to either professional library organizations or copyright policy organizations such as the National Copyright Office or WIPO, even though these organizations make an effort to offer resources and training to constituents. For example, IFLA is actively engaged in promoting copyright literacy and advocating for copyright reform. Nevertheless, levels of awareness and engagement with these organizations seem relatively low among current iSchool students. These findings suggest that professional and policy organizations might take a more proactive role in reaching out to constituents, including LIS students, to become more involved in copyright topics and to see those organizations as resources for learning about and engaging with copyright.

## Conclusion

Copyright issues affect nearly every aspect of library services, from circulation and reserves of materials, to digitization of materials, negotiating licensing agreements, and establishing institutional repositories. Librarians are routinely called upon to answer copyright-related questions, guide patrons in the appropriate use of materials, provide instruction on copyright, and even set local policy. Indeed, Crawford (2005, p. 11) suggests that "no policy area affects libraries and technology so much as copyright, and few policy areas are as complex as copyright." Despite its obvious importance, repeated studies suggest that instruction related to copyright in LIS schools is inadequate to the needs of the field, a suggestion that the findings of this study support.

As the number of jobs with copyright responsibilities such as those in scholarly communications, digital asset management and digital preservation, e-learning, and electronic resources management continues to increase, so will the demand for copyright literacy among library professionals. Nevertheless, instruction in copyright issues remains at low levels, and LIS students' reported familiarity with crucial topics remains low. In order to meet the demands of the field, and to ensure that their graduates are prepared for their professional roles, iSchools and LIS programs must integrate instruction on copyright-related topics into their curricula. The ALA already includes knowledge of copyright in its accreditation standards, but it might incentivize more attention to the topic by putting greater emphasis on that standard.

Certainly, there are some barriers to integrating copyright topics into iSchool curricula. Many programs are already content-heavy, and with new topics emerging all the time, LIS faculty are challenged to find ways to add more material without losing valuable existing content. However, integrating copyright into the curriculum does not necessarily mean that programs need to develop or devote an entire course to copyright (although the topic is complex enough to warrant it), but attention to relevant copyright laws and guidelines should at least be integrated into relevant courses. For example, reference courses might discuss resources for answering copyright questions, fair use, and the ethics of copyright. Academic library courses might discuss copyright as it relates to e-learning, course reserves, and institutional repositories. Digital libraries and digital asset management courses could integrate copyright issues related to digitization and display of materials. As one survey respondent noted in an open-ended comment, "perhaps the topic of copyright should be offered as a smaller module of a larger, more specialized topical course."

Another barrier to integrating copyright instruction in LIS curricula is likely a lack of expertise within the faculty. Copyright is a complex topic that is constantly changing and evolving, and instruction in copyright topics requires someone with deep knowledge of law, perhaps even a JD. It might not be feasible for some LIS programs to recruit faculty members with this expertise. However, if iSchools are unable to retain a full-time faculty member with the necessary level of expertise, they might be able to hire contract faculty for specific courses. These instructors could include faculty from law schools, schools of communication, or other programs that also deal heavily in copyright or might be practicing lawyers or law librarians with expertise in the area. Each LIS program will need to determine how copyright best fits into its particular curriculum, but certainly some attention to copyright belongs in every program.

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## Appendix: Copyright literacy survey for LIS students

Dear Students,

You're invited to participate in a Copyright Literacy Survey, the main aim of which is to collect data about knowledge, opinions, and experiences of LIS students regarding copyright policies and related issues. It will take approximately 15 minutes to complete the entire survey.

Please, note that survey is anonymous and participation is completely voluntary. There is no penalty for choosing not to participate in the study, or for not completing the survey.

If you have questions about your rights as a research subject you should contact Valerie Beaudrault, Human Protections Administrator in the Office of Sponsored Programs at 617-521-2415.

If you have any questions about the survey or the study, please contact Laura Saunders at laura.saunders@simmons.edu

Thank you very much for your cooperation!

## PART 1: Demographic Information

1. Country you study Library and Information Science (LIS):
   _____

2. By the end of this semester, how many courses will you have completed toward your LIS degree?

3. Your level/grade
   ○ Undergraduate—1st year
   ○ Undergraduate—2nd year
   ○ Undergraduate—3rd year
   ○ Undergraduate—4th year
   ○ Masters
   ○ PhD
   ○ Other (Please specify: _____
   _____ )

4. Your Gender
   ○ Male
   ○ Female
   ○ I do not want to disclose

**PART 2: Copyright Literacy—General Knowledge and Awareness**

5. In your opinion, which of the followings are under the protection of copyright? (Please tick all that apply)
   ☐ Published materials (such as books and articles)
   ☐ Unpublished materials (such as thesis)
   ☐ Music work
   ☐ Art work such as paintings, and sculptures
   ☐ Films
   ☐ Ideas
   ☐ Ideas
   ☐ Photos, maps, sketches
   ☐ Dances, written choreography, pantomime
   ☐ Computer software
   ☐ databases
   ☐ Architectural projects, maquettes, environmental design and stage design projects
   ☐ Handcrafts, miniatures, textile and fashion designs
   ☐ Graphical works
   ☐ Caricatures, cartoons, comics

6. Are you familiar with the following? (Please tick all that apply)
   ☐ Copyright and related law—national level
   ☐ Copyright and related law—international level
   ☐ Copyright related institutions—national level
   ☐ Copyright related institutions—international level
   ☐ Clearing right holder/s
   ☐ Licensing for information sources (e.g. for digital resources—data bases etc.)
   ☐ Copyright issues regarding the development of institutional repositories
   ☐ Copyright issues/solutions regarding virtual services within e-learning practices
   ☐ Creative Commons Licences
   ☐ Copyright issues about open access, open data
   ☐ Fair Use
   ☐ Copyright issues regarding digitization

- ☐ Copyright issues/solutions regarding materials from public domain
- ☐ Copyright issues/solutions regarding out-of-print works
- ☐ Copyright issues/solutions regarding orphan works (works whose owner/s cannot be identified or located)

7. If you want to learn more about intellectual property/copyright and its relation with the activities of the cultural institutions (libraries, archives, museums), where will you search for information? (Please, tick all that apply)
   - ☐ Librarians
   - ☐ Lawyers
   - ☐ Books, articles, etc. (e.g. copyright for librarians)
   - ☐ Websites
   - ☐ Blogs/Wikis
   - ☐ Professional discussion lists
   - ☐ National Copyright Office
   - ☐ World Intellectual Property Organization (WIPO)
   - ☐ Electronic Information for Libraries Network (eIFL)
   - ☐ International Federation of Library Associations and Institutions (IFLA)
   - ☐ International Council of Archives (ICA)
   - ☐ International Council of Museums) ICOM
   - ☐ National Library Association(s)
   - ☐ LIS (Library and Information Science) faculty
   - ☐ Other (Please specify:_____
     _____)

8. What is the name of the copyright law in your country?

9. Which of the followings are included in your national copyright legislation? (Please tick all that apply)
   - ☐ Duration of copyright protection
   - ☐ Duration of copyright protection
   - ☐ Exceptions for libraries, educational institutions, museums and archives
   - ☐ Exceptions for private use, educational, scientific and research purposes
   - ☐ Rights for librarians to provide modified copies of works to serve the needs of visual impaired patrons

☐ Orphan works (e.g. compulsory license or limitation of liability)?

☐ Orphan works (e.g. compulsory license or limitation of liability)?

| 10. **We like to hear your opinion about the following statements** | Agree | Neutral | Disagree |
|---|---|---|---|
| Services offered by libraries and other cultural institutions require compliance with the copyright legislation | | | |
| Librarians must be knowledgeable about copyright issues | | | |
| Libraries and other cultural institutions should be given exceptional rights by copyright legislation | | | |
| Worldwide harmonization of exceptions and limitations to copyright for libraries and archives is necessary | | | |
| It is necessary to include Intellectual Property Rights (including copyright) in the curriculum of Library and Information Science (LIS) education | | | |

11. In your opinion within LIS education which of the following level is appropriate for introducing Intellectual Property issues. (Please tick all that apply)

☐ Undergraduate

☐ Master

☐ PhD

☐ None

12. Please specify the topics/issues you have been educated/trained in your department. ((Please tick all that apply)

☐ Copyright related law—national level

☐ Copyright related law—international level

☐ Copyright related institutions—national level

☐ Copyright related institutions—international level

☐ Copyright related initiatives—national level

☐ Copyright related initiatives—international level

☐ Copyright related information sources

☐ Clearing right holder/s

☐ Licensing for information sources (e.g. for digital resources—data bases etc.)

☐ Copyright issues regarding the development of institutional repositories

☐ Copyright issues/solutions regarding virtual services within e-learning practices

☐ Creative Commons Licences

☐ Copyright issues related to open access, open data

☐ Fair Use

☐ Copyright issues regarding digitization

☐ Copyright issues/solutions regarding materials from public domain

☐ Copyright issues/solutions regarding out-of-print works

☐ Copyright issues/solutions regarding orphan works (works whose owner/s cannot be identified or located)

☐ Exceptions and limitations related to copyright

13. Please specify the topics/issues you think LIS students should learn before they graduate and start working in a cultural heritage institution. ((Please tick all that apply)

☐ Copyright related law—national level

☐ Copyright related law—international level

☐ Copyright related institutions—national level

☐ Copyright related institutions—international level

☐ Copyright related initiatives—national level

☐ Copyright related initiatives—international level

☐ Copyright related information sources

☐ Clearing right holder/s

☐ Licensing for information sources (e.g. for digital resources—data bases etc.)

☐ Copyright issues regarding the development of institutional repositories

☐ Copyright issues/solutions regarding virtual services within e-learning practices

☐ Creative Commons Licences

☐ Copyright issues related to open access, open data

☐ Fair Use

☐ Copyright issues regarding digitization

☐ Copyright issues/solutions regarding materials from public domain

☐ Copyright issues/solutions regarding out-of-print works

☐ Copyright issues/solutions regarding orphan works (works whose owner/s cannot be identified or located)

☐ Exceptions and limitations related to copyright

☐ Other (please specify:_____
_____)