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Preparing Tomorrow's Professionals

LIS Schools and Scholarly Communication

Today's LIS (Library and Information Science) graduates will enter a work world transformed by the revolution in scholarly communication. These changes affect virtually all aspects of academic library operations. New librarians must confront challenges such as balancing and providing appropriate access to print and electronic serials collections and keeping abreast of not only current journal and database subscriptions, but also the growing number of accepted (and cited) open-access scholarly publications. They must wrestle with copyright issues and the implications of developing institutional repositories.

It is essential that new graduates entering academic libraries have a solid grounding in the scholarly communication process. Scholarly communication has, of course, been part of the coursework in LIS schools for many years. Students have traditionally taken courses such as collection development where they learned how to acquire and evaluate books, journals, and other vehicles of scholarly communication. This type of preparation is still essential, but in an era when the process of scholarly communication is being transformed, it is not sufficient.

To better prepare their graduates, LIS schools have revised their curricula to incorporate information relating to the changes in scholarly communication, adding yet another new component to the material to be covered. Because most MLS programs in the U.S. are still only 36 hours in length, there is a finite number of courses that students can take in these programs. The traditional skills of librarianship, such as reference and catalog-

ing, are still essential, but today's LIS students are expected to master many additional skills (including a solid grounding in IT) necessary to work in ever more technologically sophisticated libraries. The addition of material about changes in scholarly communication stretches an already overloaded curriculum even further.

A fundamental goal of the ACRL Scholarly Communication Initiative has been to "broaden the base of academic librarians who are knowledgeable about and concerned with scholarly communication issues."¹ In a similar fashion, LIS schools are attempting to prepare graduates who are familiar with the new world of scholarly communication. This article will provide an overview of how LIS students are being introduced to these issues.

How are LIS schools preparing tomorrow's academic librarians to deal with the emerging changes in scholarly communication? What more can they do? In this brief overview, we will look first at specialized courses dealing with various aspects of scholarly communication that have been added to the curriculum in many schools. The next section will look at how existing courses have been modified to include scholarly communication. Finally, we will explore the benefits of field experience, graduate assistantships and participation in institutional projects.

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Specialized course work

A review of ALA-accredited degree programs revealed that many LIS schools provide specialized courses related to scholarly communication in their curriculum. It is impossible in this brief article to discuss all of the types of courses being offered, but the following course descriptions taken from the online catalogs of several LIS schools are representative of these types of specialized courses.

- **Electronic publishing.** The University of California-Los Angeles offers a course on electronic publishing: “*Survey of current issues in electronic publishing. Topics include history of publishing, digital libraries, scholarly communication, economics, perspective of publishers, universities, and librarians, uses and users of electronic documents, electronic books; new genres in electronic communication, visions of future.*”²

- **Scholarly and Professional Communication.** Drexel University offers a course concentrating on scholarly communication: “*An overview of traditional and contemporary communication patterns and the generation and use of information in research, scholarly, and professional communities. Considers models of communication and information-seeking behavior underlying the development of these communities, formal and informal communication networks, and the structure of the literatures produced.*”³

- **Economics of Information.** Rutgers University provides a good example of this type of course: “*Issues in the cost and impact of information systems, both print and electronic. The supply chain from authors through publishers, jobbers, and libraries to readers. Methods for estimating costs, describing impacts, and conducting benefit analysis. Use for management decisions. Economics of scale and of scope. Internet commerce in information and competing paper and electronic formats.*”⁴

- **Copyright.** The copyright course offered by the School of Information and Library Science at the University of North Carolina-Chapel Hill (UNC-CH), taught by Laura Gasaway, “*examines the law of copyright ... and its impact on libraries,*

education and research.” In addition to the standard issues covered in such a course, it also focuses on “*the difficulties the digital environment imposes on traditional copyright doctrines, pressures from the publishers and producers to increase copyright protection and the increasing globalization of intellectual property protection.*”⁵

Enhancing the core

Although many schools have designed new courses to deal with specific aspects of the scholarly communication revolution, it is unlikely that a large number of students will be able to take advantage of these specialized courses. As mentioned above, a 36-hour program does not allow much leeway for specialized electives. In most schools, students will learn about scholarly communication in existing courses that have incorporated elements of this topic. There are many courses that have been or can be reshaped to include these elements. One of the most obvious places to include information about the changing field of scholarly communication is in a collection development or collection management course. All of the ALA-accredited schools offer courses related to collections, and the changes in scholarly communication are necessarily a part of those courses. Restructured courses can provide students with a good overview of the changing practices in collection development.

But the collection development course is only the beginning. A large number of traditional courses are now including elements that are essential to understanding the new world of scholarly communication. For example, students in cataloging courses often study digital object identifiers and explore Dublin Core applications. Management classes offer the chance to engage students in discussions of budget concerns and user needs related to electronic material. Courses in serials management provide a good opportunity to learn about site licenses and negotiation and the increasing costs of STM serials. Courses in digital libraries cover topics such as intellectual property rights and electronic publishing.

One of the most obvious places for students to learn about the new world of scholarly communication is in an academic library course. Almost all the LIS schools offer such courses, and the topics covered in this class have been changed over the past decade to reflect the changes in academic libraries. One of the authors teaches such a course, and a significant part of the class is devoted to issues related to scholarly communication. Students are introduced to SPARC, to open access, to the challenge of cooperative collection development in the digital age, and to other emerging topics. The courses described above are just a few that may serve as vehicles for exploring trends. In addition, students can also be immersed in scholarly communication issues in courses devoted to “special topics,” “issues in ...” or “trends in LIS,” staples in information and library science studies.

Finally, students in schools that require a master’s thesis or paper can be encouraged to do research and write on topics related to scholarly communication. A quick search of the UNC-CH SILS master’s papers written by 2004 graduates produced papers with titles such as *Impact of the Digital Millennium Copyright Act on Piracy*; *The Perils of Strong Copyright: The American Library Association and Free Culture*; *Selectors’ Choices: Statistics for Evaluating E-Resources*; *A Comparison of Subscribed and Non-subscribed Titles in the Springer Link Electronic Journal Package*; *The Value of Flexibility in Metadata Schema*; *Digital Preservation and Academic Library Consortia*; *Electronic Reserve Services at UNC-Chapel Hill: Faculty and Student Perceptions of Personal Control, Access, and Service Quality*; and *The Ghost in the Machine: Traditional Archival Practice in the Design of Digital Repositories for Long-Term Preservation*.⁶ If these papers are representative of those being produced in other LIS schools, it would appear that a large number of LIS graduates are interested in and actually doing research on topics relevant to scholarly communication.

Field experience and institutional projects

One of the tried and true ways that stu-

dents are able to blend theory with practice is through field experiences, internships, or graduate assistantships that allow a student to experience what he or she has been learning in the classroom. It is one thing to read an assigned article about the serials crisis, but quite another to work in an acquisitions department and experience firsthand the decisions that must be made in balancing budgets while maintaining needed titles in desired formats. Luckily, many students are able to combine their studies with actual work in a setting where they directly encounter some of the challenges presented by changes in scholarly communication.

A number of university libraries are directly involved with scholarly communication projects at their institutions, and LIS faculty members can encourage field experience assignments within these projects. For example, institutional repositories such as the University of California’s eScholarship⁷ initiative are growing and evolving, and the practice of requiring the electronic deposit of theses and dissertations is being adopted by institutions of higher education across the nation. The creation and maintenance of these repositories can also offer practical experience to LIS students.

At UNC-CH, there are a number of projects to provide LIS students at all levels with hands-on experience. The Center for Research and Development of Digital Libraries (CRADLE)⁸ is a federation of parties interested in the migration, management, and accessibility of digital information. It serves as a test bed for the development of digital libraries and focuses on the training and education of digital librarians. Its affiliated projects include, among others:

- Neoref,⁹ an archive for scholarly digital materials that includes data and research notes as well as articles;
- Open Video,¹⁰ a repository of digitized video content;
- Minds of Carolina,¹¹ an initiative to preserve the personal digital archives of UNC faculty; and
- Ibiblio,¹² a contributor-run digital library

that advocates a commons-oriented position on information issues for communities of developers, scholars, and laypersons, and offers free hosting, bandwidth, and support for journals.

CRADLE offers not only the opportunity to work on these types of projects but also a monthly Brown Bag Lunch where students, faculty, and librarians gather together to hear speakers and to discuss issues related to digital libraries. There is also a Working Group on Scholarly Communication at UNC that provides additional opportunities for group gatherings and discussions. Students at most LIS schools have similar opportunities to interact with professionals who are grappling with implementing changes in scholarly communication in their own institutions.

Keeping up with change

As changes in scholarly communication continue to transform the face of higher education and its libraries, it is important for those studying library and information science to keep pace. LIS education is the chosen theme for the presidency of ALA President-Elect Michael Gorman. Among his concerns are the adequate preparation of library professionals and the need for curricula to be developed in cooperation with those practicing in the profession.¹³ LIS educators and practitioners working together can ensure that tomorrow's professionals will be well prepared to enter the field.

What are LIS programs doing to educate tomorrow's academic librarians in scholarly communication issues? As it turns out, quite a lot is being included in curricula of LIS schools. Specialized coursework, expansion of existing offerings, and taking advantage of opportunities for field experiences are all contributing to greater coverage of scholarly communication issues. What more can be done? LIS schools must take full advantage of opportunities that their institutions present to involve their students in the latest technologies and initiatives. Working with practicing librarians and information professionals to develop these opportunities will ensure that

the latest issues are addressed and that cutting-edge field experiences are developed.

The reverse is also important; programs can offer continuing education seminars for those already in the field and strengthen the connection between education and practice. The result will be increased competence of both students and professionals in working with the daily challenges the changing face of scholarly communication presents.

Notes

1. Ray English, "The ACRL Scholarly Communications Initiative," *C&RL News* 65, 8 (2004). Also available at: www.ala.org/ala/acrl/acrlpubs/crlnews/backissues2004/sepember04/scholarlycomminitiative.htm.
2. UCLA Department of Information Studies Course Catalog, is.gseis.ucla.edu/courses/course_catalog.htm.
3. Drexel University Graduate Course Descriptions, Information Science and Systems, coreapp1.drexel.edu/webcourses/CourseListing.asp?SubjCode=INFO&Levl=GR&univ=DREX.
4. Rutgers-New Brunswick/Piscataway Campus, School of Communication, Information, and Library Studies Courses, www.scils.rutgers.edu/courses/listing.jsp?SN=17&DN=610.
5. UNC School of Information and Library Science, Special Topics Courses, sils.unc.edu/programs/courses/special_topics.html.
6. For more information about these papers and others written by SILS graduates, see: ils.unc.edu/mpi/limit.php.
7. eScholarship Repository, repositories.cdlib.org/escholarship/.
8. CRADLE Web site, ils.unc.edu/cradle/.
9. Neoref Open Archive Search, neoref.ils.unc.edu/.
10. The Open Video Project, open-video.org/.
11. Minds of Carolina, www.ibiblio.org/minds/.
12. Ibiblio, ibiblio.org/.
13. "Gorman, Panel Express Concerns for LIS Education at Meeting in New York," *Library Journal Academic News Wire* (November 11, 2004). 