

# Research Library Issues: A Quarterly Report from ARL, CNI, and SPARC

pen educational resources (OER) remain at the forefront of the debate about open access to information and how to address the challenge of providing affordable textbooks for students. University of Massachusetts Amherst developed the Open Education Initiative, creating a grant program that supports faculty in discovering or developing replacement resources for teaching materials that are of little or no cost to students. In their article, "Open Educational Resources as Learning Materials: Prospects and Strategies for University Libraries," Jay Schafer, library director, and Charlie Schweik, faculty member in environmental conservation and public policy and administration, join librarians Marilyn Billings, Sarah Hutton, and Matt Sheridan in telling the story of this initiative. They also provide an excellent primer on the opportunities and challenges of open educational resources for higher education, libraries, faculty, students, and publishers.

In the fall of 2010, ARL began working with member libraries on a project to license e-books from university presses. This first step in shaping the licensing terms, business models, and technical platforms that are mutually beneficial to libraries and presses is one in what ARL hopes will be many ways to positively influence the scholarly communication marketplace. Charles Lowry, ARL executive director, and Julia Blixrud, ARL assistant executive director for scholarly communication, describe the license provisions that are key in the current negotiations in "E-Book Licensing and Research Libraries— Negotiating Principles and Price in an Emerging Market." These efforts have defined critical factors that libraries can use in their own licensing discussions. Lowry and Blixrud also identify next steps in the

negotiations that ARL will undertake.

The last article in this issue of *RLI* takes a look at longterm trends. For decades ARL members have used the annual ARL Statistics to compare one library to another for planning and budgeting purposes. ARL libraries benchmark themselves against their "peer institutions" to develop strategies for change. Over time as the data change, whether for individual libraries or for the ARL community as a whole, information about collections, staffing, expenditures, and service activities can serve multiple purposes. In this article, Martha Kyrillidou, senior director of ARL statistics and service quality programs, reviews data trends for ARL libraries over the past 20 to 25 years. Of note are the changes about which data are most useful to libraries, including the most recent decision to no longer collect separate statistics on

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expenditures for serials, monographs, or electronic resources, starting with the 2011–2012 ARL Statistics. The trends highlighted in this article represent the ongoing evolution taking place in research libraries.

— Sue Baughman, editor

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# Open Educational Resources as Learning Materials: Prospects and Strategies for University Libraries

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# The Importance of Open Access to Information, Demonstrated by the World Wide Web

onsider the World Wide Web as an existence proof for the innovative power of openness. Many readers of *Research Library Issues* (*RLI*) will recall the days when the web first began. Many people used the University of Minnesota's "Gopher" system to share and access resources on the early Internet, and then, suddenly, Tim Berners-Lee and his colleagues announced HTTP and HTML back around 1994. Over the next five years, the web grew remarkably, exponentially—and globally. What was the underlying phenomenon behind that remarkable growth?

Publisher Tim O'Reilly has argued,¹ and this article's authors agree, that the underlying reason for this growth was web users' ability to read the page source code, provided by the first web browsers—Mosaic, Netscape, and Internet Explorer. The "view source" function was a standard option in these browsers' menus, enabling any end user to see how a particularly appealing webpage was written in HTML. Even though these pages were not formally licensed as open source, they were. Extrapolating from O'Reilly's insight, that extraordinary time of innovation—the amazing expansion of websites globally from 1994 to about 2000—was driven by open access and individuals learning by reading other people's HTML code. The web growth over those six years is probably the most significant distance-learning program the world has ever seen. One could say it was perhaps the first "massive open online" learning phenomenon, occurring nearly two decades before anyone ever heard of the idea of a MOOC (massive open online course).

The exceptional growth of websites over this period at the end of the 20th century provides an extraordinary example of the power of open information. People wanting to gain website programming skills learned through the reading of openly available HTML code, and then often innovated or created new derivatives that were grounded upon that code. This foundational logic underlies the idea of providing open access to information in higher education.

# **Open Educational Resources: What Are They?**

Issues around the production, distribution, and access to information and knowledge in higher education involve questions about how people treat these resources as "goods." Political scientists and economists

find the "theory of goods" a useful foundation for establishing policies on access and use of natural resources or, in this case, access to information and knowledge. The theory of goods classifies goods or resources by two attributes: excludability and subtractability. For example, "private goods" are resources that are subtractable (if I have the physical book, then you don't) and easy to exclude others from using (if I keep this book in my home library, I can keep it for myself). Secondly, "toll or club goods" are those that are, theoretically, not subtractable, but are relatively easy to establish for exclusive use. Many resources provided by university research libraries (such as online journals and databases) fall in this category. Students and faculty affiliated with the university enjoy access while people without university affiliation frequently are unable to gain access, or are able to only obtain limited guest access. "Public goods" are a third category, where the good is not subtractable, and it is difficult to exclude people from access to it, or the producers of the good decide that they do not want to exclude people from this resource; "pure" open educational resources fall under this category.<sup>2</sup>

At its core, the movement for open access to information is a philosophical position on how to treat digital information, and it involves issues around the cost of production and distribution of information. To be absolutely clear, the production of high-quality information, whether paper-based or digital, requires significant human capital and the authors who develop and present new ideas and the organizations that help to make these ideas available **deserve** to be paid for these contributions. Traditionally, in the context of educational material, this reimbursement for author and publisher time and effort has come through the treatment of information as private or toll goods—the sale of textbooks, for example, or the library subscription to a journal or an online database. But the open access movement, and the search for alternative ways to finance and publish information as a public good, is an issue with which society continues to grapple, and research libraries are central in this debate.

Open educational materials come in two forms. The first form is **pure open access**, and these materials are treated as public goods, are often made available online, and are readable or available for download at no monetary cost to the reader. Educational material available through Connexions at Rice University is an example of pure open access educational content. This article refers to these simply as **open educational resources** (OERs). The second form of open educational materials is called **hybrid open educational resources** (hybrid OERs). These materials are, in effect, examples of toll or club goods referred to above. A key issue for open education efforts is the parameters established by the publisher and the library around the number of concurrent users who can access that material simultaneously. The issue of concurrent usage will be addressed later in this article.

# **Faculty Use of OERs and Their Motivations**

University faculty can be involved with OERs as either producers or consumers of content. Co-author Charles Schweik has had experience in both roles. As a producer, Schweik created a 150+ page course pack of exercises for his geographic information systems class, which he authored with graduate student colleagues and published under a Creative Commons license. This course pack was then distributed through the University of Massachusetts (UMass) Amherst's institutional repository, ScholarWorks @ UMass Amherst (bePress). As a consumer, Schweik generated a list of class readings and exercises for an undergraduate environmental policy class and made these materials available through his course website (Moodle). In the latter case, some materials used were pure open access with Creative Commons licenses,

and others were hybrid open access readings that were available to the students at no cost, due to the subscription paid by the university libraries.

From the standpoint of producing OERs, this is a transition period that will likely take years to reach wide adoption. Much of what university faculty produce and where and how they decide to publish is based on the importance of that publication for their career and future promotion. At a large research institution, peer-reviewed publications, high-caliber journals, and prominent book publishers are the gold standard. But recently, new forms of publishing and readership statistics may be changing that behavior. One example of this new kind of publishing is a video produced by digital ethnographer Michael Wesch of Kansas State University, who produced a YouTube video called "Web 2.0...The Machine is Us/ing Us," first released in 2007.<sup>3</sup> Since that time, the video has gone viral and now has 11,637,661 views. That kind of reach for any written product would be the dream of almost any scholar. This is an era when what constitutes a publication is beginning to change, and the metrics used to evaluate the impact of a publication are also changing. As this continues, publication of openly accessible learning objects might be seen as a more attractive endeavor by faculty than previously realized, and download metrics that are provided by institutional repositories will help faculty gauge the impact of these works.

Turning to the standpoint of consuming OERs, faculty have two obligations to their students when considering open educational resources. First, the resources need to be of high quality and cover the topics that the faculty expect the students to learn. Second, the faculty and the university need to deliver high-quality learning at the lowest possible cost to students. This last point is a significant reason for the development of the Open Educational Initiative at UMass Amherst.

## The Open Education Initiative at UMass Amherst

The increasing costs of higher education and the high cost of textbooks has been a concern for students and their parents for many years. As reported by the *Chronicle of Higher Education* in 2011, 78% of undergraduates report not purchasing a required course textbook due to its high price.<sup>4</sup> Perhaps of more concern is the anecdotal evidence that some students occasionally decide whether or not to take a course based on the expected cost of the required textbooks. This is becoming a bigger issue now that faculty are required to report the textbook titles on the course catalog system so students can see what materials they will be asked to purchase during the registration process.<sup>5</sup> In short: book cost, not student interest in the subject matter, may be driving some students in their selection of elective courses.

As one response to the rise in student expenses, the University Libraries and Office of the Provost at UMass Amherst developed the Open Education Initiative (OEI). Building upon a program spearheaded by Steven J. Bell, associate university librarian for research and instructional services at Temple University and a member of Temple's Teaching, Learning & Technology Roundtable Group, UMass Amherst formed a grant-incentive program to change or augment the traditional textbook model with resources that are openly available or available to students at no additional charge.

Begun in March 2011, the UMass Amherst director of libraries and the provost each contributed \$5,000 to award 10 faculty members individual \$1,000 Open Education Initiative grants to seek out an alternative textbook solution in one academic course. Tenure-track faculty were asked to identify the cost of their current teaching materials and to discover or develop replacement materials that would come at little to no cost for the students. To assist faculty, the University Libraries developed an online

guide to open educational resources.<sup>6</sup> This guide aggregates resources such as Academic Commons, Rice University's Connexions, FlatWorld Knowledge, MERLOT, and the Open Courseware Consortium, among others. Once this guide was created, the libraries reached out to campus partners to develop a support structure for the initiative and then held an internal workshop for subject liaisons to discuss available OERs and useful library databases. The campus partners included the Center for Teaching and Faculty Development, Academic Computing, and the Information Technology Program. Collaboration with these groups provided assistance with technology, teaching, and assessment and provided membership for the grant application peer-review group.

The libraries' Communication and Development Office and the key campus partners rolled out publicity for the Open Educational Initiative over several weeks. Deans and department heads were asked to encourage their faculty to apply. Library subject liaisons were asked to speak to their faculty colleagues about the grant and the available resources. Interested faculty were encouraged to attend a workshop put on by the OEI partners or to schedule an individual consultation to review available resources.

After faculty attended workshops and/or individual consultations, it became clear that, in addition to OERs, the existing library resources, specifically subscriptions to Books 24x7 and Films on Demand, were substantive enough to replace the need for high-cost textbooks or supplementary textbooks entirely. Faculty who did not find adequate existing OERs to accomplish what the grant required, realized that using library resources in conjunction with OERs would be enough to replace or supplement the textbook at no additional cost to their students. These became the toll or club goods referred to earlier as hybrid OERs.

Through the use of OERs, hybrid OERs, and the development of entirely new materials, the first round of the Open Education Initiative granted 11 awards to 9 faculty members in a variety of academic subjects. By using class enrollment numbers and the costs identified in the grant proposals, the total student savings approximated \$70,000 in a single semester. Faculty and student responses to the new materials were observed to be favorable in all courses. The success of the first round of the OEI prompted a second round of grants in the fall of 2011. During this second round, 12 faculty teaching 15 courses were awarded grants, for a total of \$15,000 dispensed and approximately \$135,000 saved. The total recurring savings from both grant rounds came to just over \$205,000 from a \$27,000 investment. Using course enrollment figures, over 1,600 students stand to be affected by the Open Education Initiative each time these courses are taught—the average savings per student per course will be \$128.

The libraries are currently launching a third round of grants, specifically aimed at high-enrollment general-education courses. These classes, typically with an enrollment of over 300 students, are the required 100-level courses taught every semester. Though intrigued by the success of the program, many faculty responsible for these courses have identified a need for larger grants to compensate for the greater investment of time and effort for these larger classes. Formal assessment of the Open Education Initiative is underway using the standard end-of-semester "Student Response to Instruction" forms, as well as separate focus groups and questionnaires for faculty and students.

# **Challenges and Next Steps**

Following the first two rounds of awarded faculty grants and the implementation of (predominantly) new digital materials in courses, it became clear that this initiative was heightening the current definition of

information access at UMass Amherst. With the third round of grant awards underway, analyzing endof-semester user data to take a closer look at the impact of open educational resources on student learning is clearly only part of the assessment process. Challenges of concurrent user access, material software and hardware conformity for the reading of digital OER products, and content accessibility became more pronounced as increasing numbers of faculty began requiring OERs as part of the core curriculum.

The first instance of a concurrent usage problem presented itself during early stages of the OEI grant awards, in the aforementioned environmental policy course taught by Charlie Schweik. In this instance, a hybrid-OER model was used, integrating an e-book hosted by both ebrary and EBSCO. Unbeknownst to Schweik at the time, the EBSCO single-user license on this newly required e-textbook prevented any of the 80+ students in the class from using the text concurrently. The assumption of multi-user licensing caused problems for students mid-semester, as they were battling with each other to gain access to the required readings.

This issue provided a valuable lesson for the University Libraries and grant participants to ensure that any licensed products allow multiple concurrent usage through leased ownership, as opposed to single-copy licensing, and that the licensing is clearly explained by the library when faculty are looking for these products as they design a course. In larger lecture courses, consideration must be given to increasing multi-user license allotments provided by publishers, as their arbitrary assigned usages are not sufficient for larger general-education courses. Working to establish more multi-user materials will become a major role of libraries during the contract-negotiation process with the publishers and/or vendors providing these materials.

Increasing the instances of required digital course materials brings attention to the second challenge, software and hardware conformity issues, which is not limited to courses under revision as a part of the OEI. The ongoing investigation of circulating e-readers and tablets is a topic receiving heavy focus from many academic libraries, as successes have been noted in the circulation of such devices in the public sector. While the amount of digital content increases, students are interested in more portable delivery mechanisms that are compatible with content format. With the University Libraries working closely with faculty, the Center for Teaching and Faculty Development, and Academic Computing, it would stand to reason that the acquisition of specific materials could be coordinated with the procurement and circulation of compatible hardware to students—this is no simple issue.

While EPUB, the successor to the Open eBook format, is the most commonly utilized e-book format by large vendors such as ebrary, this format is not easily transferable to many mobile devices, particularly most e-readers. The issue of incompatibility with devices and the ongoing difficulties students experience with varying e-book platforms prompted the University Libraries' Research and Liaison group to establish an online guide. The guide assists students in the navigation of sometimes overly complex reader software and issues of general material access through the proxy server. The concept of electronic books is still a difficult one to grasp for many students and faculty, and the libraries' role of information interpreter continues to grow as issues of access increase.

Broader issues of accessibility expanded into the third major challenge for the initiative, ensuring that this content (which is required for completion of coursework) is accessible to **all** users. The accessibility of OERs is an issue drawing increasing attention from online teaching and learning advocates such as Gerard L. Hanley, the executive director of MERLOT and senior director for academic technology services at California State University. The OpenCourseWare Consortium and MERLOT, partnering with

the National Federation of the Blind (NFB), recently presented their concerns of action needed in the higher education community to resolve ongoing issues of access.<sup>11</sup> With cases as recent as the *Florida State University v. NFB* settlement in May 2012, the path to making course materials accessible to all students is far from well-travelled.<sup>12</sup>

Aside from addressing issues of content accessibility on a local level within content acquisition and provision, the libraries at UMass Amherst are also participating in a university-wide initiative to address accessibility as new programs and technologies are assessed for implementation. The Technology Access Committee, composed of members from all over the university including (but not limited to) the Provost's Office, Disability Services, IT, and the libraries, was born out of a recognition that issues of accessibility need to be continually addressed. By participating in the action on accessibility at an institutional level, the libraries are much more closely integrated with ongoing campus initiatives, and can provide valuable advice and expertise "from the field," as library staff deal with a large percentage of students currently attempting to access these newly implemented materials.

## **Conclusion**

Just as the high cost of commercial research journals has motivated the academic library community to advocate for open access publishing with faculty, the high cost of commercially published college textbooks is broadening the conversation to include open educational resources. Many of the issues are similar—the concern for quality, the realization that publishing is not "free," the understanding that authors should rightfully expect some level of recognition and/or remuneration for their work, and the fact that faculty can change the paradigm since they are almost totally responsible for the choice of textbooks they require. And, as with open access publishing, many faculty are not aware of the magnitude of the problem or the solutions available to them.

The Open Education Initiative at UMass Amherst has demonstrated there are several ways to address the concerns students and parents have as they face an average of \$1,168 per year for books and supplies. The University Libraries, in collaboration with the campus academic administration (the Provost's Office), faculty support groups (Center for Teaching and Faculty Development), and academic programs (the Information Technology minor), have led the effort to incentivize faculty to modify the traditional commercial textbook model with resources that are openly available or available to students at no additional charge. Among the alternatives now in place are:

- True open access textbooks available through the libraries' institutional repository, ScholarWorks
   @ UMass Amherst, or other open textbook solutions
- Hybrid open educational resources that utilize the learning management system to provide access to appropriate resources (articles, e-books, streaming media) already licensed by the libraries
- Reducing the number of "required textbooks" by supplementing one core commercial textbook
  with either open access resources or resources already licensed by the libraries to reduce the
  overall cost to students.

OERs are not without issues to address. Faculty need to fully understand copyright and alternatives such as Creative Commons licensing. If faculty are assigning students to use existing licensed resources,

those licenses must provide adequate access for multiple users. And, important for any resources being provided by the campus or the library, the materials must be fully accessible to all students. ARL has recently published two reports, the *Report of the ARL Joint Task Force on Services to Patrons with Print Disabilities*<sup>14</sup> and "Massive Open Online Courses [MOOCs]: Legal and Policy Issues for Research Libraries," an ARL Issue Brief,<sup>15</sup> that are very helpful in understanding the complexity of these issues.

While assessment of student and faculty satisfaction is still under way, preliminary indications are that both groups are very satisfied with efforts to challenge the existing model of expensive commercial textbooks with a model using OERs. One-time savings to students of over \$205,000 have resulted from an initial investment of \$27,000—and these savings will multiply each time the course is taught. Working with faculty and commercial publishers to promote and facilitate the adoption of open educational resources and other hybrid models places the libraries in an excellent position to uphold their public landgrant mission and to gain support from campus administration, parents, and students.

#### **Endnotes**

- 1 Tim O'Reilly, "The Open Source Paradigm Shift," June 2004 (article based on presentation, Warburg-Pincus Technology, Media, and Telecommunications annual conference, May 2003), <a href="http://www.oreillynet.com/pub/a/oreilly/tim/articles/paradigmshift\_0504.html">http://www.oreillynet.com/pub/a/oreilly/tim/articles/paradigmshift\_0504.html</a>.
- 2 There is a fourth category: "common-pool resources" that are subtractable goods but are also difficult to exclude people from using. Goods that fall under this category are often natural resources like fisheries, water resources, and forests. This category isn't as relevant in the context of OERs.
- 3 Michael Wesch, "Web 2.0...The Machine is Us/ing Us," YouTube video, updated on Jan. 31, 2007, http://www.youtube.com/watch?v=6gmP4nk0EOE.
- 4 Molly Redden, "7 in 10 Students Have Skipped Buying a Textbook Because of Its Cost, Survey Finds," *Chronicle of Higher Education*, Aug. 23, 2011, <a href="http://chronicle.com/article/7-in-10-Students-Have-Skipped/128785/">http://chronicle.com/article/7-in-10-Students-Have-Skipped/128785/</a>.
- 5 In compliance with the Higher Education Opportunity Act (HEOA), amendment to Textbook Provision section 112, section 133 dictates:
  - (a) PURPOSE AND INTENT.—The purpose of this section is to ensure that students have access to affordable course materials by decreasing costs to students and enhancing transparency and disclosure with respect to the selection, purchase, sale, and use of course materials. It is the intent of this section to encourage all of the involved parties, including faculty, students, administrators, institutions of higher education, bookstores, distributors, and publishers, to work together to identify ways to decrease the cost of college textbooks and supplemental materials for students while supporting the academic freedom of faculty members to select high quality course materials for students.

- In 2010, UMass Amherst and textbook provider eFollett worked together to establish provision of anticipated textbook and required materials cost to non-enrolled students through the SPIRE registration system.
- 6 Matt Sheridan, "Open Educational Resources" guide, last updated Feb. 19, 2013, <a href="http://guides.library.umass.edu/oer">http://guides.library.umass.edu/oer</a>.
- 7 The example of an arbitrary assignment of 26 concurrent users in a license by publisher HarperCollins would not suffice for a 300+ student lecture course. Source: American Library Association, *The 2012 State of America's Libraries: A Report from the American Library Association* (Chicago: American Library Association, 2012), <a href="http://www.ala.org/news/mediapresscenter/americaslibraries/soal2012">http://www.ala.org/news/mediapresscenter/americaslibraries/soal2012</a>.
- 8 In 2011, nearly 28% of public American libraries reported providing e-readers and other mobile devices for checkout to patrons. Source: ibid.
- 9 Many resources report on the incompatibility of e-readers with EPUB, the most prominent in the market since 2010 being the Kindle. Source: Jason Perlow, "EPUB: The Final Barrier for Kindle Adoption," *Tech Broiler* (blog), Aug. 20, 2010, <a href="http://www.zdnet.com/blog/perlow/epub-the-final-barrier-for-kindle-adoption/13804">http://www.zdnet.com/blog/perlow/epub-the-final-barrier-for-kindle-adoption/13804</a>.
- 10 This guide can be embedded in any standard course as a widget; it covers finding e-books in the UMass Amherst Libraries' most prominent e-book vendors: "E-Books at UMass Amherst Library," last updated Jan. 2, 2013, http://guides.library.umass.edu/content.php?pid=234808.
- 11 OpenCourseWare Consortium, MERLOT, and National Federation of the Blind, "Accessibility and OpenEducational Resources: Status and Issues for Higher Education," (presentation, Emerging Technologies for Online Learning conference, Las Vegas, NV, July 26, 2012).
- 12 Marc Parry, "\$150,000 Settlement Reached in Blind Florida State Students' E-Learning Suit," Wired Campus (blog), Chronicle of Higher Education, March 6, 2012, <a href="http://chronicle.com/blogs/">http://chronicle.com/blogs/</a> wiredcampus/150000-settlement-reached-in-blind-florida-state-students-e-learning-suit/35659.
- 13 College Board, "Quick Guide: College Costs: Books and Supplies," accessed March 27, 2013, <a href="https://bigfuture.collegeboard.org/pay-for-college/college-costs/quick-guide-college-costs">https://bigfuture.collegeboard.org/pay-for-college/college-costs/quick-guide-college-costs</a>.
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# E-Book Licensing and Research Libraries—Negotiating Principles and Price in an Emerging Market

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## **Background**

RL actively began a licensing effort in the fall of 2010. Members of the Association had expressed interest that ARL find ways to positively influence the scholarly content marketplace; emerging e-book markets were identified as the area in which to begin, but with the proviso that success would lead to similar efforts for other content. ARL especially wanted to ensure that the emerging market and access structures developed for e-books would serve the needs and support the values of the research and academic library community. Members of the Association did not want to repeat the license restrictions found in e-journal agreements that they are now trying to renegotiate. While price matters, especially as budgets continue to be constrained, another primary driver for ARL's e-book activities was the need to identify specific principles that would be especially important to research libraries in the acquisition of electronic resources, determine the content that could first be acquired using those principles, and develop a strategy through which the work could be accomplished. Some ARL libraries have developed advocacy and values statements about e-books—see the accompanying sidebar at the end of this article.

E-book task forces and consultants recommended and the ARL Board agreed that a project to license e-books from university presses be given the highest priority.¹ The market was relatively new and ARL members are often closely aligned with university presses at their institutions. University presses were beginning to develop models for individual and aggregated e-book strategies. A collective ARL effort would provide a way to shape the licensing terms, business models, and technical platforms that would be mutually beneficial to libraries and to presses. Since ARL did not want to provide new infrastructure to negotiate member license agreements, a critical piece of the project included the identification of an agent to conduct that work on behalf of interested members.

More importantly, ARL developed a set of evaluation requirements that included technical specifications and licensing rights required by research libraries.<sup>2</sup> The agent was required to use these "Detailed Evaluation Requirements and Desirables" (a.k.a. "ARL E-Book Requirements") when negotiating the e-book content licenses.<sup>3</sup> In order to determine the rights terms and provisions ARL members might require for e-book content, existing licensing principles and documents were examined. Since there were no general principles for e-book licensing available when the project began, some principles were drawn from best practices in license packages for e-journals. Consultants and task force members supplied language for other principles based on local licenses or developed language through consensus. Legal expertise was sought for some principles. When referencing copyright, both the US and Canadian acts are referenced since ARL membership is located in both countries. There was a general recognition throughout negotiations that some requirements would be attenuated by technology limits of vendor platforms. ARL sought accommodation to meet these in initial contracts, while pressing for technical modifications that would allow closer conformity to the principles it sought to advance.

LYRASIS was selected as the ARL agent<sup>4</sup> and the first license negotiated on behalf of ARL was for the University Press Content Consortium (UPCC) Book Collections on Project MUSE (hereafter "provider," "vendor," or "licensor"). Readers are referred to the "ARL E-Book Requirements" for detail regarding the technical and service specifications. What follows is a description of some of the key license provisions, some of the principles upon which they were based, and how they were addressed during the negotiations.

## **Key License Provisions**

The final license successfully addresses many key points. ARL acknowledges Johns Hopkins University Press and Project MUSE for their willingness to work together to craft a license in this new arena. A significant characteristic of the license, which allows many of the provisions, is the absence of digital rights management (DRM) on the UPCC e-book files.

### **Archival, Preservation, and Perpetual Use**

The "ARL E-Book Requirements" include extensive language based on principles for perpetual use that archival preservation, refreshing, or migrations ensure continued use and/or retention of the data. One copy of any material sold or discontinued must be made available from the provider to the library in a mutually acceptable format. In addition the provider would grant a nonexclusive, royalty-free, perpetual license to use any licensed materials accessible during the term of the agreement after the agreement terminates. Third-party trusted archive services and collaborative archiving could fulfill the requirements for the perpetual-use provision. A copy of the licensed materials should be provided upon termination of the agreement for research libraries to use to fulfill their preservation responsibilities.

The provider agreed to grant a nonexclusive, royalty-free, perpetual license to use any content that was accessible during the term of the agreement. Perpetual access would be available at no charge if access was purchased within the previous 24 months or, if not active, a reasonable annual fee would be charged to recover costs to provide continuing access. In addition, a machine-readable copy would be provided upon termination and further copies could be made for the purpose of archival preservation. A third-party trusted archive is also allowed to provide services.

#### **Authorized Users and Authorized Uses**

Research libraries have diverse and dispersed communities. This license principle expressed in the "ARL E-Book Requirements" is similar to that used by libraries for e-journals and journal packages. It specifies that the user community include those who the institution authorizes to access secure institutional networks. Those individuals may be within the library, but are more likely to need remote access. The principle also allows walk-in users for those institutions that offer unaffiliated users onsite access.

The uses made of the content are for the purposes of research, education, or other non-commercial use. Provision is made that the licensee and authorized users may make all use of the licensed materials as is consistent with the exceptions and limitations of the US Copyright Act, including 17 USC §107, §108, §110, §121, and the Copyright Act of Canada. Nothing in the agreement is to be interpreted to limit in any way rights under the exceptions and limitations of the US Copyright Act and the Copyright Act of Canada to use the licensed materials. Commercial use would not be considered authorized use.

The principle also states that the licensing libraries should be protected from liability for unauthorized uses so long as they have implemented reasonable and appropriate methods to notify users of any restrictions. Libraries are responsible for establishing policies that create the environment in which appropriate uses of content can be made and have a mechanism for carrying out due process if there is a violation.

The resulting agreement supported all of these principles and allows unlimited access to the full text of the e-books in the collection with no contractual limits on the number of authorized users from one campus at any given time.

#### **Compliance with Americans with Disabilities Act**

A required principle is that the content provider should comply with the Americans with Disabilities Act (ADA) by supporting the necessary software or devices consistent with the guidelines published by the World Wide Web Consortium's Web Accessibility Initiative.<sup>5</sup>

The provider agreement stated that they would comply by supporting the necessary software and devices as indicated by the Web Accessibility Initiative's guidelines.

#### **Device Neutrality**

While specifying in the "ARL E-Book Requirements" that access to the licensed materials should not be restricted to any one type of device as part of the licensing provisions, ARL does recognize that this also is a technical challenge for content providers as delivery platforms and mechanisms evolve. Initially the e-book content is likely to be PDF, but the long-term expectation is standard file formats that allow for full functionality on any computer or reader.

The content from the provider for this project is PDF and can be sent to any device that reads that format.

# **Display, Printing, and Downloading**

Users doing research may need to access or use an entire work for an extended period of time, so it was important for ARL to include a principle for authorized users to display or download the complete extent of individual titles. That ability to download also should not be restricted to any specific device. Printing is to be consistent with the exceptions and limitations of the previously referenced copyright acts.

The provider agreement states that users may download and print one copy of each e-book chapter for personal use and archive the content on their own personal devices.

## **Course Reserves and Course Management Systems**

This "ARL E-Book Requirements" principle requires that licensed materials can be used in preparation of course reserves and course management systems, whether print or electronic.

The resulting agreement allows chapter linking for the duration of a course using a persistent or durable URL where access is restricted to students enrolled in the course, to the course instructors, and to library staff maintaining the links.

#### **Indemnification**

A principle in the "ARL E-Book Requirements" is that the publisher warrants to the licensee that the content does not infringe the copyright or any other proprietary or intellectual property rights of any person. The publisher shall indemnify and hold the licensee harmless from and against any loss, damage, costs, liability, and expenses (including reasonable legal and professional fess) arising out of any legal action.

The provider did agree to this principle provided that there is prompt notification of any claim or threat of claim, there is full cooperation in the defense or settlement of the claim, and the publisher has sole and complete control over the defense or settlement of the claim.

### **Scholarly Sharing Rights**

An important aspect for global scholarship is that users often share content with colleagues. This "ARL E-Book Requirements" principle states that authorized users may transmit to a third-party colleague in hard copy or electronically the licensed materials for personal use or scholarly, educational, scientific research, or professional use, but in no case for re-sale. In addition, authorized users have the right to use (with appropriate credit) figures, tables, and excerpts from the licensed materials in the authorized user's own scientific, scholarly, and educational works.

The resulting agreement allowed the sharing of content, although it is limited by the system to chapter-by-chapter transmission. While this implementation is not altogether desirable, ARL continues to press for it to be changed. That will require technical work on the licensor platform.

### **Usage Data**

The "ARL E-Book Requirements" oblige content suppliers to provide use data in conformance with the Codes of Practice for Project COUNTER.<sup>6</sup> The data must be gathered in a manner consistent with applicable privacy and data-protection laws, keeping users anonymous and their searches confidential.

Under the resulting agreement, usage data will be provided to the participating libraries and to the agent and ARL and gathered in a manner consistent with applicable privacy and data-protection laws. The anonymity of individual users and confidentiality of their searches will be protected.

# **Licensing Success**

The negotiations were protracted as ARL, its agent, and the content provider worked together on a new product offering. The final license is in alignment with nearly all of ARL's technical, licensing, and service requirements. This achieved ARL's several objectives: to work with the university press community, address license terms that affect research libraries, and create a business and technical specification model that would meet the needs of both content producers and purchasers.

As previously pointed out, some provisions are dependent on technical capabilities or with whom the license is negotiated (an aggregator or the e-book publisher).

#### **Interlibrary Loan**

The "ARL E-Book Requirements" include specific language for its principle regarding interlibrary loan:

Licensee may fulfill requests from other institutions, a practice commonly called Interlibrary Loan. Participating Member Institution agrees to fulfill such requests in compliance with Section 108 of the United States Copyright Law (17 USC §108, "Limitations on exclusive rights: Reproduction by libraries and archives"), as well as the Copyright Act of Canada.

Libraries are authorized to interlibrary loan the e-book for a short-term loan. The loan constitutes one of the libraries' simultaneous users. Interlibrary loan is not restricted to other libraries within the same country.

This language does not specify whole book, single-file lending but the resulting agreement allowed interlibrary loan at the chapter level, with no limits on the number of chapters that could be loaned. The publishers favored chapter-by-chapter downloading both as a license and technical response to whole-book downloads. To allow whole-book lending, a technical short-term lending option is currently in development for 2013.

#### **Text Mining**

A principle for text mining, which is of interest to researchers who wish to analyze a full corpus of material, is also included in the "ARL E-Book Requirements":

Authorized users are permitted to engage in text processing, which is any kind of analysis of natural language text. This may include but not be limited to a process by which information may be derived from text by identifying patterns and trends within natural language through text categorization, statistical pattern recognition, concept or sentiment extraction, and the association of natural language with indexing terms. Technology may not be used to hinder any rights granted under this section or any other section of this agreement.

ARL listed this as desirable rather than required since technical capabilities by content providers might not be available at the time licenses were being negotiated. The agent was encouraged, however, to negotiate for those rights when possible. The resulting agreement allows text mining with prior notification so that arrangements can be made to prevent system crashes, modify abuse-monitoring system warnings and potential disabling features, and adjust usage statistic counts.

## **Author Rights**

ARL is encouraging authors to retain their own content rights and included in the "ARL E-Book Requirements" a license clause originally developed for journal articles:

Notwithstanding any terms or conditions to the contrary in any author agreement between Authors and Licensor, Authors affiliated with Licensee whose work ("Content") is accepted for publication within the Licensed Materials shall retain the non-exclusive, irrevocable, royalty-free right to use their Content for scholarly and educational purposes, including self-archiving or depositing the Content in institutional, subject-based, national or other open repositories or archives (including the author's own web pages or departmental servers), and to comply with all grant or institutional requirements associated with the Content.

For the avoidance of doubt, it is the intent of the parties to this agreement that Authors are third party beneficiaries of this provision of the Agreement.

Aggregators do not have these rights to grant and the resulting agreement does not address this provision. The rights are managed between the author and the e-book publisher and could only be negotiated if the publishers in the aggregation have them. Since authors manage rights for articles differently than monographs, author and publisher education may be needed in order for research libraries to be able to include this provision.

## **Next Steps**

Some important business and technical requirements could not be met for the first license, but the provider agreed to address them in the next year's offering:

- The business model offered was a collection-based model, which does not meet the needs of all research libraries. Libraries expressed the need for title-by-title selection options. Subsequent to the licensing process, the vendor developed and implemented the title-purchase capability.
- The linking of current collection management activities through vendor-approval plans to avoid title duplication is needed. As with title selection, this capacity has now been put in place.
- Some libraries desire a demand-driven purchase option.
- More e-book content that represents a higher percentage of the total publisher output would increase research library interest in the overall package.
- Interlibrary loan was a chapter-by-chapter solution and a new short-term lending option is in development to allow whole-book lending.

Negotiations for the next year's license for the UPCC collections have begun. Other university press e-book publishers and aggregations learned of the ARL project and have contacted the agent. They too were given the opportunity to respond to the principles and rights terms identified in the "ARL E-Book Requirements" before any negotiations took place. Negotiations were completed with both Oxford University Press for University Press Scholarship Online and De Gruyter for the Harvard University Press eBooks. A positive response from both publishers led to these new offerings for ARL members. ARL considers the initial project quite successful and accordingly will continue to pursue future opportunities.

Sidebar: Research Library Statements on E-Books

As demand for e-books has increased in the research library community, libraries are shifting content previously made available in print to electronic form. This shift is not unlike the one nearing completion in the journal environment. Although the intellectual content of the scholarly materials in print and electronic form might be similar or even the same, the technical capabilities and the marketplace issues are placing demands on how libraries provide access to the content.

In order to address how research libraries might make the best use of these materials, some ARL members are developing statements about e-books and their applicability to research, teaching, and learning. The values articulated in these statements parallel many of the negotiating principles ARL included in its licensing initiative.

#### **Access and User Experience**

Many research library users read e-books on personal devices. Libraries value nonproprietary platforms that will allow portability of content among devices. Research library users need to be able to have access whenever and wherever they need it and libraries are committed providing unlimited, simultaneous access to content they acquire. The ability to display, download, cut, and paste is important for any user conducting research.

Libraries also value compliance with the Americans with Disabilities Act and similar laws that ensure technical capabilities to allow all readers access to e-books. Protection of the privacy of readers is important to libraries in a print environment and the value is being upheld for e-books as well.

#### **Learning and Scholarly Research**

Sharing content is an important consideration for scholarship, and research libraries value licensing terms that do not limit fair use, first sale, or interlibrary loan. No digital rights management (DRM) allows content to flow freely between and among scholars, teachers, and learners. Libraries value licenses that support use of course management systems and reserves. And as larger corpuses of aggregated content become available, research libraries value the ability of researchers to use that content to conduct text mining.

#### **Acquisition and Preservation**

The values expressed by libraries for acquisition models include the ability to acquire e-books through multiple methods of purchase, including demand- or patron-driven acquisition. Libraries, on behalf of their users, value simultaneous publication of print and electronic content and reasonable pricing models when purchasing or leasing either or both. The ability to incorporate purchased or subscribed content within workflows is also highly valued.

As research institutions that take responsibility for the preservation of recorded knowledge, research libraries value the ability to archive the content provided by e-book providers. They also value perpetual access to any purchased or subscribed content.

Expressions of these and other values can be found in the following examples of research library e-book statements.

Duke University Libraries. "E-Book Advocacy Statements." Accessed Apr. 11, 2013. http://library.duke.edu/ebookstrategy/statements.html.

Duke University Libraries E-Book Strategy Committee. "Every Reader Her or His Book: An E-Book Advocacy Statement from the Duke University Libraries." Aug. 24, 2011. http://library.duke.edu/ebookstrategy/e\_book\_advocacy.pdf.

North Carolina State University Libraries. "NCSU Libraries Value Statement for the Scholarly Ebook Marketplace." Accessed Apr. 11, 2013. http://www.lib.ncsu.edu/cdsc/ebooks/.

Triangle Research Libraries Network. "TRLN: Beyond Print." Last modified Nov. 14, 2012. http://www.trln.org/BeyondPrint/.

University of California, Los Angeles, Library. "UCLA Library E-Book Value Statement." June 2012. http://www.library.ucla.edu/libraries/managing-collections/e-book-value-statement/.

#### **Endnotes**

- 1 The Task Force to Identify Actions for ARL in the Licensing Environment was established in October 2010 with co-chairs Brinley Franklin (Connecticut) and Michael Ridley (Guelph). Members included Paul Courant (Michigan), Carol Diedrichs (Ohio State), Carole Moore (Toronto), and Michael Stoller (New York). The ARL Board accepted their resulting white paper and recommendations for action in February 2011.
- 2 The Task Force on Licensing E-Book Packages included Helen Clarke (consultant), Janice Flug (consultant), Brinley Franklin (Connecticut), Mary Jo Romaniuk (Alberta), and Michael Stoller (New York). This task force prepared the agent RFP and evaluation requirements and license principles, which were approved by the ARL Board. Julia Blixrud and Charles B. Lowry provided staff support for both task forces.
- 3 "ARL E-Book Requirements," 2012, <a href="http://www.arl.org/storage/documents/publications/arl-e-book-requirements-2012.pdf">http://www.arl.org/storage/documents/publications/arl-e-book-requirements-2012.pdf</a>.
- 4 "ARL and LYRASIS Sign Agreement for Licensing Initiative," Julia Blixrud and Celeste Feather, Nov. 29, 2011, <a href="http://www.arl.org/news/arl-news/2660-arl-and-lyrasis-sign-agreement-for-licensing-initiative">http://www.arl.org/news/arl-news/2660-arl-and-lyrasis-sign-agreement-for-licensing-initiative</a>.
- 5 "Publications," W3C Web Accessibility Initiative, Web Content Accessibility Guidelines Working Group, last updated Dec. 19, 2012, http://www.w3.org/WAI/GL/#Pubs.

- 6 "Codes of Practice," COUNTER, last updated Feb. 2013, http://www.projectcounter.org/code\_ practice.html.
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# Research Library Trends: A Historical Picture of Services, Resources, and Spending

### Martha Kyrillidou, Senior Director, ARL Statistics and Service Quality Programs

he *ARL Statistics* 2010–2011 includes data that describe collections, staffing, expenditures, and service activities for the 126 members of ARL. Of these 126, 115 are university libraries and 11 are public, governmental, and nonprofit research libraries. ARL member libraries are the largest research libraries in North America, representing 18 Canadian and 108 US research institutions. The academic libraries include 16 Canadian and 99 US libraries, which compose 91% of the membership.

ARL libraries are a relatively small subset of libraries in North America, but they do account for a large portion of academic library resources in terms of assets, budgets, and the number of users they serve. The total expenditures of all 126 member libraries in 2010–2011 were slightly more than \$4.6 billion, with approximately \$3.2 billion spent by the 115 university libraries and more than \$1.3 billion by the non-university libraries.

The data collected from ARL member libraries for the *ARL Statistics* describe a number of trends over the past 25 years. Some of those trends are depicted in the six charts discussed on the following pages.

Figure 1. Service Trends in ARL Libraries, 1991–2011

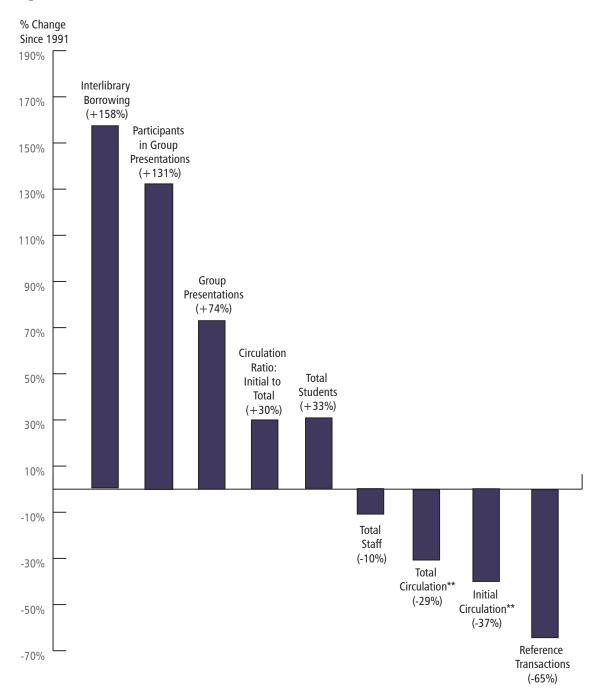


Figure 1 presents the percentage change since 1991 in select public service activities such as circulation (initial and total), reference transactions, library instruction (group presentations and participants in these presentations), and interlibrary borrowing and lending. The chart shows that circulation and reference transactions are declining while total students, group presentations, and participants in those presentations are increasing. Library services are being redefined as information is becoming more easily and readily accessible. Libraries are engaged in defining new roles and services as reported in ARL publications such as *ARL Profiles: Research Libraries 2010* and ARL's New Roles for New Times report series.

Figure 2. Monograph and Serial Costs in ARL Libraries, 1986–2011

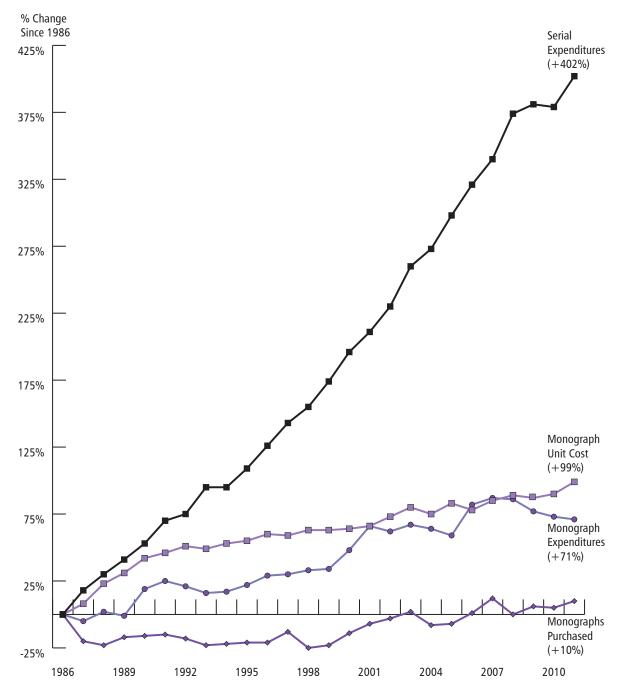


Figure 2 displays the skyrocketing expenditures since 1986 for serials in comparison to monographs. This graph no longer includes serial unit cost or serial subscriptions because in 2006–2007 ARL switched to counting serial titles instead. This change refocused the statistics on more meaningful indicators since serial subscriptions were acquired in duplicate fashion through digital products resulting in multiple subscriptions to the same title. Furthermore, with the realization that counting serial titles is also problematic, serials will not be tracked as a separate entity starting with the 2011–2012 ARL Statistics.

In future years beginning with the 2011–2012 ARL statistics, expenditures for subscriptions and expenditures for monographs will no longer be collected separately. In other words, the expenditures

data will no longer be tied to format (serials or monographs). It is important to track expenditures for continuing resources as they make libraries vulnerable to monopolistic tendencies, but it is clear that "serials" are morphing into a variety of different online products and services.

Figure 3. Supply and Demand in ARL Libraries, 1986–2011

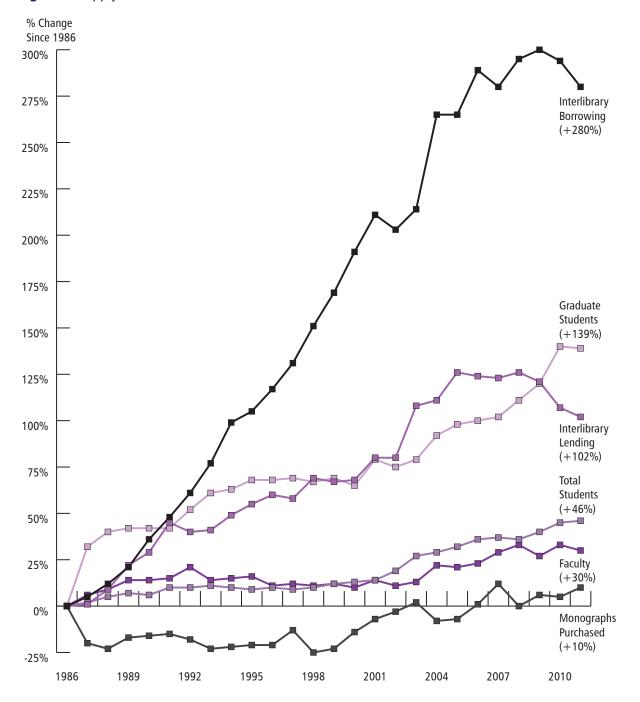


Figure 3 shows that interlibrary borrowing and lending, which experienced a marked growth from 1986 to 2006, are now steadily declining, likely due to the wide availability of information resources. Overall research libraries continue to lend more than they borrow, indicating the rich and unique level of resources available at these institutions, thus supporting their mission to serve researchers beyond their institutional boundaries.

Figure 4. Expenditures Trends in ARL libraries, 1986–2011

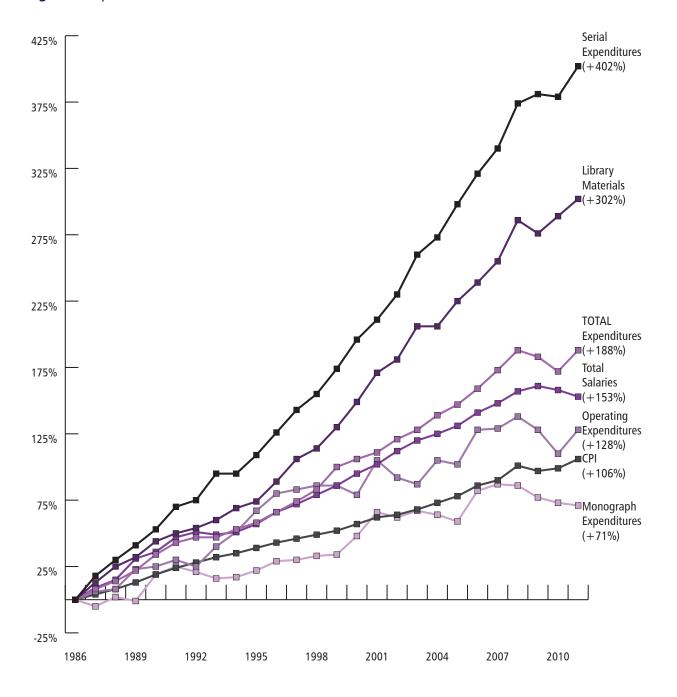


Figure 4 shows that total library expenditures (unadjusted for inflation) returned to 2008 levels in 2011. Operating and library materials expenditures increased while salaries continued to decline for the second year in a row. The annual consumer price index (CPI), included in Figure 4, provides a comparative reference for the increases in library expenditures.

Figure 5. Resources per Student in ARL University Libraries, 1986–2011

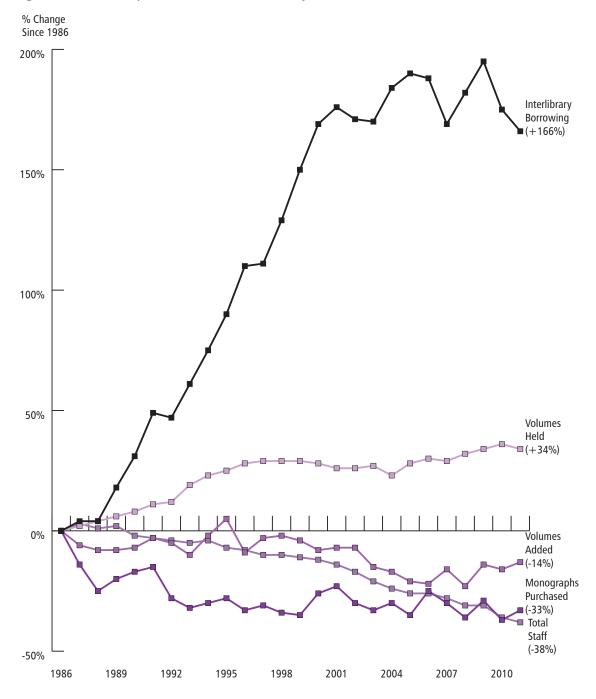


Figure 5 shows that ARL libraries acquired 33% fewer monographs per student in 2011 than in 1986. Libraries also reported fewer staff per student in 2011 as compared to 1986. In 2011, there was a median number of fewer than 10 total staff per 1,000 students, compared to the 1986 level of 16 staff per 1,000 students. This trend may be related to the falling number of circulation and reference transactions and the rising number of library presentations shown in Figure 1—fewer staff may be needed for one-on-one transactions compared to group presentations.

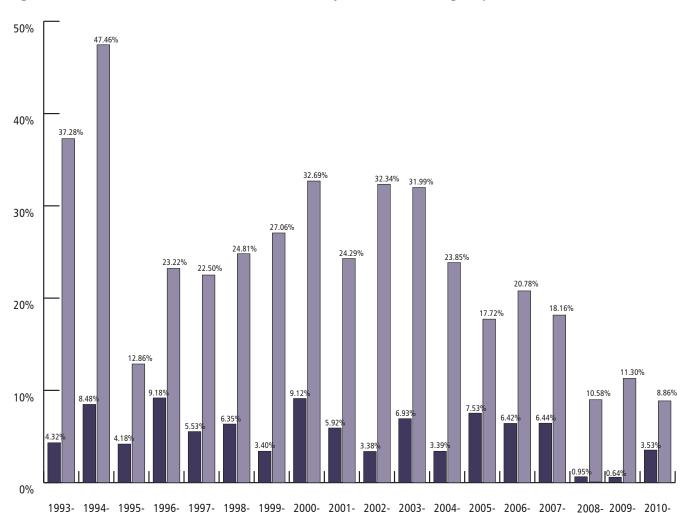


Figure 6. Electronic Resources vs. Total Materials, Yearly Increases in Average Expenditures, 1993–2011

Figure 6 contains data on several items, which previously had been collected only in the ARL Supplementary Statistics. These data are especially useful because they reflect monies spent on all electronic serials, while the ARL Statistics categories of "serials purchased" and "serials expenditures" include only those journals that provide full-text electronic versions to their subscribers. The nature of what is a serial purchase is shifting. E-books now are coming to libraries as subscription packages. And multimedia products are challenging the traditional notions of serials and monographs.

2002 2003

2004

2005

2006

**Electronic Resources** 

2007

2008

2009 2010 2011

Not only have electronic materials expenditures grown sharply in the past two decades, they have grown at a rate far exceeding that of library materials expenditures overall. Figure 6 shows a sharp growth every year of the past two decades in electronic materials expenditures, anywhere between two and ten times faster than total materials expenditures have grown. The growth rate appears to be slowing down, possibly indicating that an equilibrium position has been reached.

1995

1996

1997

1998

1999

2000

2001

Total Materials



The average ARL university library now spends more than 65% of its materials budget on electronic materials and many ARL libraries report that they spent more than 70% of their materials budget on electronic materials.

#### **Conclusion**

Starting with the forthcoming 2011–2012 ARL Statistics, ARL is no longer collecting data on expenditures for serials, monographs, or electronic resources specifically. The definitions shifted to capture one-time purchases and continuing purchases (i.e., subscriptions) irrespective of the format of the publication. Library budgets are increasingly shifting towards continuing purchases and collaborative collection development, which is uprooting the historical model of the Alexandrian ideal of building large collections accessible to a few select scholars. Easier access to information through the electronic environment along with increasingly self-sufficient users (indicated by the rise in library presentations and the fall in reference transactions) is democratizing access to information. How a research library is to be defined in this environment remains an unanswered question. A potential answer may be in the global impact a library and its parent institution are recognized to have as they produce world-class learners, students, researchers, and citizens.

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RLI 280 28

# **Research Library Issues**

## A Quarterly Report from ARL, CNI, and SPARC

Research Library Issues (RLI) focuses on current and emerging topics that are strategically important to research libraries. The articles explore issues, share information, pose critical questions, and provide examples. Ideas for articles are welcomed. Please send ideas to Sue Baughman, ARL Deputy Executive Director, sue@arl.org.

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