University of Kansas Print and Electronic Journal Comparison Study

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In the spring of 2008, the Collection Development Department at the University of Kansas Libraries undertook an initiative to reduce costs by eliminating print subscriptions to journals it was receiving electronically. A study was designed and implemented to determine how this might impact students, faculty, and other patrons of the Murphy Art & Architecture Library. As a direct result, the majority of print art journals under consideration were retained, largely due to inconsistencies in content and quality found within the electronic versions. Following is an outline of the study's procedure and a discussion of the findings.

[The following article is based on a paper presented at the "Future of Art Journals" session at the ARLIS/NA Annual Conference held in Indianapolis, Indiana, in April 2009.]

Background

The "inevitable" transition from print-based to electronic publishing has major implications for libraries, and art libraries are no exception. Regardless of an individual institution's collection development policies or format preferences, librarians face increasing pressure to maintain or improve the accessibility and size of their periodical collections despite inflating subscription and licensing costs. Cutting print subscriptions, for many, is an attractive and seemingly obvious solution for achieving immediate savings.¹

The advantages of favoring electronic journals over paper ones are numerous. For one, users have come to expect the convenience of round-the-clock access to full-text articles. As a result, e-journals tend to be used more frequently than their print counterparts, by a factor of ten or greater, according to a 2007 study by the Association of Research Libraries. In addition, the electronic format allows libraries greater freedom and flexibility in terms of space, in turn reducing or completely eliminating some of the associated costs of a physical collection. These costs include such things as "receipt and processing, shelving, binding, circulation, and stack maintenance." Moreover, electronic journals allow simultaneous access for multiple users from remote locations.

On the other hand, it has been argued that the monetary incentive to transition to the electronic editions of print journals may be negated by cataloging or related licensing costs.³ Furthermore, concerns over perpetual access to electronic subscriptions and or questions over the library's ability to re-acquire back issues (should this prove necessary at any point in the future) discourage libraries and librarians from electing electronic journals over paper ones without first giving the matter significant thought. Finally, it has been suggested that smaller publishers, typically in more specialized fields, are less inclined to have the means—financially or otherwise—to produce publications in both print and electronic formats, and usually stick

with the former; libraries with an interest in collecting these types of materials will have a harder time transitioning smoothly to primarily electronic journal holdings.⁴

Although electronic journals are apt to raise problems and/or resistance in any field, art journals pose unique challenges for those seeking to embrace—by choice or necessity—electronic versions of their print journal subscriptions. As the following case study from the University of Kansas Murphy Art & Architecture Library illustrates, poor image quality and/or incomplete content in electronic art journals can be significant barriers to art libraries that would otherwise freely adopt, if not embrace, this format.

Literature Review

A handful of studies focusing on the accuracy of electronic reproductions of print journals have been conducted and published previously—especially in the area of the sciences. Of those, three are particularly relevant and, therefore, worth mentioning.

In 2004, the University of Arizona Science-Engineering Library developed a methodology for analyzing electronic journals in Elsevier's *ScienceDirect* database with the goal of transitioning away from print journals.⁵ Conceived primarily as a means to free up physical space and reallocate funds and other resources, the staff developed a three-tier system to prioritize the removal of the print versions of those electronic journals that were deemed reasonably complete and problem-free while delaying the remainder of the titles until concerns could be resolved by the publisher.

Subsequent studies by the University of Illinois, Urbana-Champaign, also concerning the titles available through Elsevier, appeared in *Library Collections, Acquisitions, & Technical Services* in 2006. One broadly examined the quality of images and figures in Elsevier's *Earth and Planetary Sciences* back-file package (thirty-five titles),⁶ and the other investigated a core selection of five of Elsevier's titles.⁷ Significantly, the latter assigned image quality in the electronic journals a rating based on a point scale specifically created for that purpose.

Finally, a more closely-related and contemporaneous study, conducted by Steve McCann and Tammy Ravas of the University of Montana, examined image quality in electronic art history journals vis-à-vis user behavior through a series of conversational interviews (an expanded article on that survey appears in this issue of *Art Documentation*).8 Specifically, their investigation explored user expectations of images in an electronic art journal, and their findings—that students and faculty generally expect to have to consult additional image sources outside of the article (if image quality is lacking) would suggest an alternative approach: that patrons are perhaps better served if librarians focus less on the image quality in the electronic journal, and more on ways to streamline this supplemental search.

The print and electronic journal comparison study at the University of Kansas Murphy Art & Architecture Library developed organically, independent of these other initiatives. Those seeking to replicate a study such as this one in their own institutions may wish to consider implementing aspects of the aforementioned studies as well. It is hoped that the body of literature will continue to expand as more and more libraries—and specifically art libraries—join in the dialogue.

The Murphy Art & Architecture Library Study

Looking to cut costs in the spring of 2008, The University of Kansas Libraries' head of collection development strongly encouraged bibliographers system-wide to consider abandoning print subscriptions of dual-format journals. While most of the university's libraries adopted or accepted this policy outright, the art librarian, Susan Craig, was concerned about the reciprocity of print and electronic versions. She decided that a systematic review should be conducted before making such a commitment, and a study was quickly designed and carried out to compare the two.

A student assistant at the Murphy Art & Architecture Library was enlisted to collaborate, and together they determined a strategy for evaluating the thirty-eight art journals identified under the dual-format criterion by the Collection Development Department. The student assistant conducted a side-by-side, page-by-page comparison in order to determine how this move might potentially impact the students, faculty, and other patrons of the Murphy Art & Architecture Library. The latest issue of every title was compared against the corresponding electronic issue in the library's subscription databases. To the student assistant's preliminary report and initial recommendation (which made reference to any glaring quality and content issues), the art librarian added her professional recommendation and submitted the report to faculty for their review. After receiving and taking into account any feedback received from the department heads of Art History, Art & Design, and Architecture, she compiled a report with her final recommendations to submit to the head of collection development.

The study took less than a month to complete, with a week or more of this period set aside to receive faculty responses. Ideally, more time would have been allowed for feedback, but a quick turnaround was necessary in order to achieve the greatest cost-savings in transitioning to electronic-only subscriptions. Although the evaluation was carried out faster and less comprehensively than may be desired from a purely academic standpoint, this is likely more representative of the kind of expe-

rience typical libraries can expect when planning and executing studies of their own.

Methodology

After receiving information from the Collection Development Department on the prescribed changes in format preference, the art librarian assigned a student assistant the task of handling the initial comparison between the print and electronic versions of the titles listed. Given this collection of titles, the student assistant went into the stacks to collect the latest print edition of each, and then accessed the corresponding electronic issues to complete the evaluation.

A running report was created in Microsoft Word, as the notes were essentially qualitative, and each title was treated in an individual section. For every journal, the student assistant listed the databases in which the issue was currently available, along with dates of coverage, the specific issue being used for the comparison (with a call number for easy reference during the course of the project), and the particular database being used to evaluate the electronic version—in most cases the first listed.

Flipping through the print issue page by page, while simultaneously viewing the pages in the electronic issue online, the student assistant listed any instances (page numbers or ranges) where there were discrepancies between the two, with a concise description of the omitted content (e.g., page 30, advertisement, Gallery X). Next, he summarized the condition of the electronic journal by giving an overall impression of the completeness of the e-version vis-à-vis the print—noting what types of things were generally absent (front and back covers, ads, minor features, main articles)—and making some remarks on image quality. Finally, he produced a brief concluding statement in the form of a recommendation to retain or eliminate the print subscription based on these factors.

Perusing the student assistant's report, the art librarian clarified any gray areas by conducting her own follow-up examination of the print and electronic versions of selected titles. She then gave her recommendation, along with the details of the comparison, to the department heads of Art History, Art & Design, and Architecture to elicit faculty comments, concerns, and general feedback. Adding their responses to the report, she came up with a final recommendation for each title by taking everything into account. Ultimately, she submitted the full report, with a one-page summary listing the journal title, fund (e.g., Art History, Architecture), print subscription cost for the fiscal year, her recommendation, the faculty's recommendation, and a final recommendation, to the head of the Collection Development Department.

Considerations

While conducting the page-by-page comparison, there were a number of factors to keep in mind, but the most important question was whether the e-version reproduced the print version faithfully. Content and quality were easily the most important components to consider for the purposes of this evaluation.

If the electronic version of a journal failed to meet expectations because it was incomplete, the student assistant had to identify what was missing. It was not uncommon, for example, to find that cover art and advertisements were not reproduced online. More unexpected, but also relatively common, were

instances in which minor content (e.g., tables of contents, letters to the editor, feature sections, organization/society news, classifieds, etc.) or even main articles were inexplicably omitted. Given the visual nature of the subject matter, the exclusion of these materials was especially worrisome. In the case of the advertisements—many of which were for galleries and featured artists' works—the Murphy Art & Architecture Library would have lost access to content that was being indexed if the print issues were discontinued.

Quality was another vital factor. It was not enough simply to have all of the material in the print issue reproduced electronically; it needed to be done accurately. If a journal was lacking in this regard, it was important to determine what was lost. Illegible text is a potential problem with electronic journals in any discipline, but with art in particular, image quality is paramount. Issues with color and contrast can obscure detail and meaning, rendering the accompanying analysis or commentary difficult to follow or altogether unintelligible.

Results

The University of Kansas Murphy Art & Architecture Library was extremely fortunate in the fact that canceling the print subscriptions to its dual-format titles was a request and not a mandate; however, this may not always prove to be the case. Of the thirty-eight titles that were evaluated, the print subscriptions of sixteen were canceled, and twenty-two were retained—twenty-two more than would have been kept without undertaking a comparative study such as this one.

Looking through the final report, there appeared to be five main reasons why print subscriptions were canceled:

- The e-version was deemed an acceptable (if not good to excellent) representation of the print edition, as in 69 percent of cases;
- The journal was primarily textual (13 percent);
- The usage was perceived to be minimum or infrequent (6 percent);
- The subject of the journal was not currently emphasized in the university's curricula (6 percent); and
- In instances, there was no faculty opposition and the librarian had recommended cancellation (6 percent).

As the report illustrates, there was little hesitation to cancel print when the electronic version was considered adequate for the library's needs and for those of its patrons.

Print subscriptions were retained for a variety of reasons:

- The image quality was deemed unacceptable, as in 36 percent of cases (including those where journals were being used as a source of images for teaching);
- The given title was considered particularly important within its field (14 percent);
- The faculty felt that having the print issues available for student browsing was especially valuable (18 percent); and
- Content was lost between the print to electronic version (32 percent).

Together, concerns over image quality and content loss accounted for 68 percent of the print journals saved, which suggests that improvements to the quality of scans could result in much greater movement of art libraries from print to electronic journals.

Conclusion

The pressure to transition from print to electronic formats was an impetus to examine closely the present condition of the library's electronic art journals. The experience highlighted deficiencies in the electronic versions (ranging from the tolerable to the egregious) and provided a basis for the Art and Architecture Library to support its decisions, with documentation, to the head of collection development for the retention of print subscriptions for specific titles. From the literature review conducted after the study, it was clear that although concern over the content and image quality of electronic journals is incipient within the larger library field, it remains largely an untreated topic within the context of art journals. It is hoped that the experience of the University of Kansas Murphy Art & Architecture library serves to enlighten others and promote a more deliberate appraisal of these resources before major decisions (print vs. electronic) need to be made for the sake of the collection.

Maintaining dual formats, while perhaps the best-of-bothworlds scenario for the moment, is not a financial strategy that is very sustainable for the majority of libraries. As Richard Johnson states, "many of the potential economies of online journals are not achieved if dual formats are sustained."9 Furthermore, for those institutions desiring a more radical shift to electronic journals, holding on to print creates an obstacle. Johnson points out that "as a practical matter for many institutions, the move to electronic can only be accomplished if print journals and their attendant costs are sacrificed."10 Ultimately, while the ideal solution will vary according to the individual institution, the fact remains that most electronic art journals have not yet matured to a point that art libraries and librarians can simply expect an even trade-off, print for electronic, with every title. In the meantime, it falls to those desiring to make a complete or partial transition from print to electronic to weigh the shortcomings of a given title against user needs and budget realities. Evaluation is necessary to determine that the electronic edition of a print journal fits the user's needs and behavior, and to ultimately improve, via feedback to publishers, the quality of present offerings—making the electronic journal a more lucrative option in the future.

Notes

- 1. Richard K. Johnson and Judy Luther, "The E-only Tipping Point for Journals: What's Ahead in the Print-to-Electronic Transition Zone," *The Association of Research Libraries* (2007): 9, http://www.arl.org/bm~doc/Electronic Transition.pdf (accessed August 20, 2009).
 - 2. Ibid., 2.
 - 3. Ibid.
 - 4. Ibid., 23.
- 5. Marianne Stowell Bracke and Jim Martin, "Developing Criteria for the Withdrawal of Print Content Available Online," *Collection Building* 24 (2005): 61-64.
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- 8. Steve McCann and Tammy Ravas, "Hurting or Helping? Image Quality in Online Art History Journals," http://www.arlisna.org/news/conferences/2009/ses_faj-mccann-ravas.pdf (accessed August 20, 2009). Presented at the Art Libraries Society of North America Annual Conference April 20, 2009 in Indianapolis.
 - 9. Johnson, "The E-only Tipping Point for Journals," 2. 10. Ibid., 14.

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The full programme will examine the future of art librarianship and will include presentations looking at the increasing use of social media, new projects concerning digital resources and collections, and artists' increasing use of archive and library material in their work. A wide range of breakout sessions will cover topics such as securing funding, putting preservation policies into practice, and online digital resources for students. Visits to diverse Edinburgh institutions such as the Scottish Poetry Library, the Scottish Parliament and the National Library of Scotland will also be available.

See the ARLIS UK & Ireland $\underline{\text{http://www.arlis.org.uk}}$ website for further details and regular updates. Booking information will be available shortly.

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