

# Letters to the Editor

## Transfer From Print to Electronic Serials

Sir:

In response to the article, "Making the Transition from Print to Electronic Serial Collections: A New Model for Academic Chemistry Libraries?" by Tina E. Chrzastowski (JASIST, 54(12):1141–1148).

The author provides a back-of-the-envelope cost/use calculation of \$11.24 for Elsevier's journals and compares this number to the cost of interlibrary loan of \$30/article and concludes with a consent that this price "is within reason [to pay]" for a commercial publisher.

Quick calculations like this can be both grossly inaccurate and wildly misleading. There are several unstated and undefendable assumptions that went into the author's calculations.

### Assumption 1

#### *It Is OK to Compare and Aggregate Online Use With Print Use*

Repeated studies have illustrated that print use is underestimated (only 20–25% usage recorded), and that online use can be greatly overcounted. The results of these two counts can vary difficult to interpret (Blecic, 2000; Blecic, Fiscella, & Wiberly Jr., 2001; Davis, 2002; Goodman, 2002; Morse & Clintworth, 2000).

The principle problem with overcounting the use of electronic journals is that publishers can only count article *requests*, not actual articles *delivered*. Blackwell Publishers reported an array of factors affecting their overcounting including double-clicking, refreshing a page, using back and forward browser buttons, and multiple document requests by certain web browsers (Blackwell, 2001). Quantitative work on overcounting was reported by Elsevier for its Science Direct platform (Borghuis, 2000). Project COUNTER, an international committee established to set standards for counting the use of electronic products, has begun to set standards for publishers (Project COUNTER, 2003). While these standards will ultimately allow librarians to compare the cost-effectiveness of journals between publishers, they cannot correct for the overcounting of e-journals in general. In addition, Web log analysis by Stanford University and High Wire Press illustrated that many individuals first download an article in HTML, only to download the same document in PDF (Institute for the Future, 2002). In summary, the electronic usage statistics reported in Chrzastowski's paper may be grossly inflated by both the technical aspects of counting, but also by counting the same article in different formats.

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### Assumption 2

#### *All Journals Cost the Same and Are Used the Same*

Aggregating the total cost and total use of journals does not account for the great skew in journal utility and value (Bensman, 1996; Bensman & Wilder, 1998; Davis, 2002; Ke, Kwakkelaar, Tai, & Chen, 2002; Seglen, 1992). In reality, the cost/use of two journals can differ by much as 4 factors. At Cornell University in 2002, the cost/use for the Elsevier journal, *Lancet* (electronic only) was 15 cents (\$635/3892 downloads). The cost/use for *Nuclear Physics A* was \$1,020 (\$8,840/8). The act of averaging all costs over all downloads distorts the relative value of journals.

### Assumption 3

#### *The Set of Journals Requested by Interlibrary Loan Are Similar to the Set of Journals Subscribed by a Library*

Comparing the cost/download for Science Direct to the general cost of Interlibrary Loan (ILL) is perhaps the most egregious example of comparing "apples and oranges." Documents ordered by ILL are for those journals *not available* to a library community, which have very different characteristics than the set of journals that *are available*. Articles ordered through ILL are generally from a class of journals that are not subscribed by a library because they are (a) too costly, (b) provide too little value, or (3) are out of scope to a library's mission.

The average cost of Interlibrary Loan documented by Chrzastowski was \$30/document as cited by (Jackson, 1997). This number takes into consideration the total cost of borrowing *and lending* for a library. It also takes into consideration the accumulated costs of not being able to fill a request, which can be significant.

Taking the example of *Nuclear Physics A* (above), it would have been more cost-effective for Cornell University Library to pay for ILL than to subscribe to this journal. Even at a full \$30/document (assuming that all eight downloads represented eight separate and unique document requests), the cost of ILL would have been at total of \$240 compared to the 2002 subscription price of \$8,840. This type of cost-savings has been very well documented in a large cancellation and document-delivery experiment at Louisiana State University (Kleiner & Hamaker, 1997).

Many libraries, like the UIUC Chemistry Library reported in this study, are going through the transition from print to electronic. It is not disputed that many libraries are working with a new model for purchasing and providing access to journal content. The analysis provided in this study, however, distorts the cost of scientific information by aggregating all costs and by comparing document access models that deal with different set of journals. The desire to build comprehensive library collections is shared by both librarians and their patrons. Unfortunately, as Stanley Wilder expresses it quite bluntly, "compre-

hensive collecting is inconsistent with value-based collecting.” (Bensman & Wilder, 1998, p. 245)

**Philip M. Davis**  
*Life Sciences Bibliographer*  
*Cornell University,*  
*Ithaca NY 14853-4301*  
*E-mail: pmd8@cornell.edu*

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## Rejoinder: Transition From Print to Electronic Serials

Sir:

My thanks to Phil Davis (Cornell University) for his careful reading of my recent *JASIST* publication, a paper presented at the Tri-Societies Symposium at SLA in Los Angeles, June 2002. I am happy to address his concerns about my analysis.

### Assumption 1

#### *Comparing Print and Online Use*

I agree with many of Davis' points, especially that we must be careful in comparing use data. In fact, I raised many of these same notions when describing how the data were collected and viewed (p. 1145). These are messy times and we are still working to find out just what our users do with journals, print and electronic. Despite the many caveats needed to frame the analysis (and I included many), the data are too interesting to put in a drawer and say we can't look at them together. And the overall trends are too overwhelming to ignore. Ultimately my conclusion was “print use is decreasing and e-journal use is increasing” (p. 1145). This conclusion was based on comparing print use to print use and e-journal use to e-journal use over time at the UIUC Chemistry Library, not mixing apples and oranges. My data support this conclusion for the UIUC chemistry collection, and my caution to readers and attendees of the symposium was that these conclusions were valid at UIUC, but that “your mileage may vary” (p. 1147).

### Assumption 2

#### *Aggregation Assumes Journals Cost and Are Used the Same*

The purpose of this presentation was to inform the new model—an electronic environment with few print journals available on site. One part of exploring that model led me to review overall cost/use ratios for the UIUC Chemistry Library over time. I agree with Davis that no two journals cost the same or are used the same (clearly demonstrated by the three ACS journals shown in Table 6). Detailed analysis is always done by individual title (a process done biannually at this library and documented in previous articles (Chrzastowski [1991] and Chrzastowski and Olesko [1997])). However, for the purpose of reviewing the feasibility of the proposed model, I used a broad brush to take a look at how overall cost and use have changed over time. This overview led me to conclude that the addition of electronic journals has increased

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cost effectiveness overall, a conclusion I believe is valid.

### Assumption 3

#### *Articles Borrowed Via ILL Are Similar to Those Subscribed to by the Library*

In the past, many of the titles now borrowed via ILL would have been part of our local collection. Davis is correct that we now tend to borrow items infrequently needed and therefore not cost effective to own. However, we also borrow items missing from our collection, at the bindery, or not yet received items that will become part of our collection. Before ScienceDirect, many Elsevier titles were available to us only through interlibrary loan or document delivery. The point made in the article was that every library has a cut off point at which it is more cost effective to purchase articles rather than subscribe to an entire serial, and this cut off will differ for each library. For the UIUC Chemistry Library, that cut off point is determined by the relative cost/use ratio (refigured every two years for each title) compared to the price of document delivery or ILL, the method we would use to acquire the requested article.

The exercise reported here was an attempt to determine the “lay of the land”—a broad overview of activity

(a phrase used many times in this presentation, along with “your mileage may vary”) to decide if the UIUC Chemistry Library was ready to move ahead to the new model. A secondary purpose was to present data to get us all thinking about what is happening to our collections and our libraries. I’m happy that both goals have been achieved.

#### **Tina Chrzastowski**

*Chemistry Library  
University of Illinois at Urbana-Champaign  
255 Noyes Lab  
505 South Mathews  
Urbana, IL 61801  
E-mail: chrz@uiuc.edu*

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