LIVING THE PRINCIPLES – A RETURN TO TEMPE

by Adrian Alexander, Executive Director, Big 12 Plus Libraries Consortium

On February 9 and 10, 2001, 23 provosts and 26 library deans from members of the Big 12 Plus Libraries Consortium met in Tempe, Arizona to discuss the “Principles for Emerging Systems of Scholarly Publishing.” These principles, now known as the “Tempe Principles,” resulted from a previous meeting held in Tempe in March 2000, sponsored by the Association of American Universities (AAU), ARL, and the University of Kansas. That meeting brought together 40 stakeholders in the scholarly publishing process to build consensus on a set of principles that could guide the transformation of the scholarly publishing system. Subsequent to that meeting, the AAU and the National Association of State Universities and Land-Grant Colleges commended the principles to their presidents and chancellors for discussion on their campuses. Feeding this call for action, the Big 12 Plus created an opportunity to engage their provosts, in the words of conference organizer Sarah Michalak (University of Utah), “in a discussion of what the principles really mean at the institutional level. We want their endorsement of the principles, but more importantly, we need their involvement in developing action plans for implementing the principles.” This February 2001 meeting of the Big 12 Plus provosts and library directors was hosted by Arizona State University Provost Milton Glick and Dean of Libraries Sherrie Schmidt.

The Big 12 Plus (BTP) consists of 29 research libraries located in the central and western United States. Twenty-eight of its members are academic libraries, of which 24 also belong to the Association of Research Libraries. Scholarly communication issues have been a part of the consortium’s strategic plan for over three years, with its first direct involvement in the “debate” dating back to April 1998, when the Big 12 Plus hosted a joint meeting of its library deans and members of the U.S. National Commission on Library and Information Sciences at the Linda Hall Library in Kansas City, Missouri. Speakers at that meeting included ARL Executive Director Duane Webster and University of Kansas Provost David Shulenburger, who emphasized the need for a re-examination of the academy’s role in scholarly communication, including universities and scholarly societies. Shortly after this meeting, the provosts of the Big 12 Athletic Conference endorsed a statement drafted by Shulenburger and outlining this position, titled “Scholarly Communication and the Need for Collective Action.”

The discussions that provided the focal point for the February 2001 Big 12 Plus meeting were facilitated by Stanley Chodorow, former provost at the University of Pennsylvania and now Professor Emeritus at the University of California at San Diego. Chodorow was also a member of the original group that met to develop the Tempe Principles in March 2000. In addition to the provosts and library deans who gathered, the BTP also welcomed two special guests: George O. Strawrn, Executive Officer, Directorate for Computer and Information Science and Engineering (CISE), National Science Foundation; and Heather Joseph, President, BioOne, Inc. The discussion was organized around three major themes, each containing several Tempe Principles to be addressed: 1) the promise and requirements of scholarly e-publication, 2) copyright issues of control and...
fair use, and 3) the economy of scholarly communication. The following is a summary of this discussion and the conclusions that were reached.

Session I - The Promise and Requirements of Scholarly e-Publication

- **Tempe Principle 1**: The cost to the academy of published research should be contained so that access to relevant research publications for faculty and students can be maintained and even expanded.

- **Tempe Principle 2**: Electronic capabilities should be used, among other things, to: provide wide access to scholarship, encourage interdisciplinary research, and enhance interoperability and searchability.

How can the universities and their libraries use the technological infrastructure that institutions have installed to achieve these goals and to ensure that the university’s information assets are securely preserved and readily accessible to faculty and students?

This session began with a discussion of the “scholars portal” concept and its application to achieving a readily accessible, cost-effective system of scholarly communication. While there was general support for the idea, several questions were raised. For example, where should the editorial function and other control mechanisms reside? How would peer review be managed and paid for? One participant suggested incorporating a “fee for service” for manuscript review. Everyone did seem to agree that portals would need to be discipline-based. This led to a lengthy discussion of the importance of the role of scholarly societies in developing scholars portals. It was suggested that a good starting place for developing a portal might be with digitized public domain information already indexed in our libraries. But, the group asked, how do we collaborate on a project such as this? Could BTP libraries serve as a test-bed for such an approach? Before the BTP begins creating portals, cautioned a participant, there may be a need for the community to focus first on creating more “alternative” publishing outlets, such as was done with BioOne.4

The conversation then turned to ideas for how to move these concepts forward. One suggestion was to identify what should be included in a scholars portal to address the challenges and expanding possibilities of scholarly publishing. Then the BTP libraries could sponsor meetings of their faculty, with particular focus on those disciplines that would most likely benefit from and that are most ready to move to a new model such as this. After identifying such interested groups, the provost’s role would be to support—both financially and with policy—campus participation. Additionally, other academic consortia, such as the CIC, as well as scholarly societies, could be invited to participate. The University of Arizona’s creation on its campus of the low-cost alternative journal *Journal of Insect Science*, which competes with an existing, higher-priced journal, was given as an example of a successful approach to tying the scholars portal concept to a source of academy-sponsored and vetted content for a portal. Another option proposed for local action was to identify on each of the BTP campuses journal editors who are key to effecting any changes in the system of scholarly communication.5

Session II – Copyright Issues of Control and Fair Use

- **Tempe Principle 5**: The academic community embraces the concepts of copyright and fair use and seeks a balance in the interest of owners and users in the digital environment. Universities, colleges, and especially their faculties should manage copyright and its limitations and exceptions in a manner that assures the faculty access to and use of their own published works in their research and teaching.

- **Tempe Principle 6**: In negotiating publishing agreements, faculty should assign the rights to their work in a manner that promotes the ready use of their work and choose journals that support the goal of making scholarly publications available at reasonable cost.

How does fair use of electronic publications differ from that of print publications? What position should universities take in defining fair use in the electronic media? What role should granting agencies play in helping to realize the goals of Principle 6? What should universities do to encourage the agencies—principally the NIH and NSF—to assist in this effort?

The Tempe Principles clearly acknowledge the central role played by copyright in the academic community’s mission of advancing knowledge. The principles note that members of the community are both creators and consumers of scholarly publications, and by judiciously assigning the rights to their work, faculty members can help assure that scholarship remains affordable available to the community. This second discussion session began with a suggestion that faculty, when they publish, ought to stipulate that their work go into the public domain six months after publication, as called for in the “Public Library of Science” (PLOS) movement.6 The PLOS is a grassroots effort led by a small group of distinguished life scientists to create publicly available electronic archives of the life sciences literature. The leaders of the PLOS are encouraging scientists to talk with their societies and to sign an open letter pledging to submit to, review or edit for, or subscribe to only those journals that will make their content freely available in a public archive six months after publication. Participants noted that many of the original signers of the letter are journal editors themselves. Can BTP provosts and library deans do anything practical on their respective campuses to support this initiative? One response was that all of those present could endorse the
PLOS concept on their campuses and encourage faculty to sign the open letter. It was also suggested that the BTP could recommend to the National Science Board that it adopt a policy with respect to placing publicly funded scholarly publications in the public domain. The group concluded this session by endorsing the PLOS concept and agreeing to work to encourage faculty to sign the open letter. In addition, they agreed to inform faculty of the importance of amending publishers’ copyright transfer agreements in order to reserve the rights to use their own works in teaching and research. The Triangle Research Library Network’s “Model University Policy Regarding Faculty Publications in Scientific and Technical Scholarly Journals” was pointed out as a good example of a useful model.

**Session III - The Economy of Scholarly Communication**

- **Tempe Principle 1:** The cost to the academy of published research should be contained so that access to relevant research publications for faculty and students can be maintained and even expanded. Members of the university community should collaborate to develop strategies that further this end. Faculty participation is essential to the success of this process.

- **Tempe Principle 8:** To assure quality and reduce proliferation of publications, the evaluation of faculty should place a greater emphasis on quality of publications and a reduced emphasis on quantity.

How do we restore the proportionality of the cost of information within the economy of the academy? What opportunities do the electronic media give us to reduce the cost of publication and distribution of information? How do we preserve fundamental academic values while reducing the cost of publication?

The third session of the day began with a discussion of Tempe Principle 8, dealing with the issue of “quantity vs. quality” in scholarly publication. Chodorow cited several universities as examples of institutions where this issue has been explored, but noted that there isn’t necessarily a single formula that would apply evenly across disciplines or that could be applied uniformly by all departments. Nevertheless, the adoption of a formula could change a campus’s culture over time. Some questioned, however, whether Principle 8 had its roots in the paper journal age, where concern over quantity is the byproduct of annual faculty evaluation systems that force us to emphasize placing “marks on the wall.” Others were concerned that we might be fooling ourselves to think of Principle 8 as a means of reducing the cost of scholarly communication. In fact, selecting fewer articles for tenure and promotion might not prove to be an incentive to publish less at all, but might prompt faculty to publish even more.

**Summation and Next Steps**

The meeting ended with the hope that the impact of what was learned at this gathering will extend beyond our own campuses. The Big 12 Plus could become a catalyst for promoting change across the academy. The following points of agreement were reached:

- Support and fund the development of electronic journals that dramatically reduce costs to libraries, or which fill in gaps in the literature, such as BioOne (http://www.bioone.org/), which was co-founded by the BTP, and the University of Arizona’s new Journal of Insect Science (http://www.insectscience.org/).

- Encourage faculty at BTP institutions to sign the “open letter” on the Public Library of Science website (http://www.publiclibraryofscience.org/), and work with journal editors on our campuses to commit their respective publications to the PLS concept. Additionally, we will pursue the adoption of a resolution from the BTP provosts and their library deans to the National Science Board, requesting a new National Science Foundation policy that supports and implements the Public Library of Science concept for all NSF-funded research, and that creates an archive for that research similar to the National Institutes of Health’s PubMed Central (http://www.pubmedcentral.nih.gov/).

- Endorse the original Tempe Principles on each of our campuses.

- Re-evaluate our respective promotion and tenure policies as they relate to the valuable work performed by faculty as journal editors, including work on electronic publications.

- Create a strategy to develop an array of scholars portal initiatives within the BTP, utilizing existing technical standards and including discipline-specific, customized scholarly content.

- Promote best practice (model language) in institutional intellectual property rights policy in order to achieve the goal of unconstrained access to scholarly materials for educational purposes.

---

1 See <http://www.big12plus.org/>.
4 BioOne is an online aggregation of journals in whole organism biology created through a partnership of the Big 12 Plus, SPARC, the University of Kansas, IAB, and Allen Press. See <http://www.bioone.org/>.
5 It was noted that a database of journal editor information is included as a part of the Create Change campaign and would be useful in this initiative. See <http://www.arl.org/create/resources/journal.html>.
6 See <http://www.publiclibraryofscience.org/>.
7 See <http://www.lib.ncsu.edu/scc/trln.html>.

—Copyright © 2001 Adrian Alexander
The Public Library of Science

A group of leading life scientists is calling on publishers, editors, and scientists “to join together to create public, electronic archives of the scientific literature, containing complete copies of all published scientific papers” (Science 23 [March 2001]: 2318). This grassroots effort, known as the Public Library of Science, has attracted the support so far from over 15,500 scientists from 137 countries who have signed a letter indicating that, as of September 2001, they will only publish in, review and edit for, and subscribe to journals that make their content freely available on a publicly accessible archive six months after publication. The site is available at <http://www.publiclibraryofscience.org/>.

To find out more information on the Public Library of Science, contact Patrick O. Brown <pbrown@cmsg.stanford.edu> of Stanford University School of Medicine and the Howard Hughes Medical Institute or Michael Eisen <mbeisen@lbl.gov> of the Lawrence Berkeley National Lab and University of California at Berkeley. The full text of the Open Letter follows.

Open Letter

We support the establishment of an online public library that would provide the full contents of the published record of research and scholarly discourse in medicine and the life sciences in a freely accessible, fully searchable, interlinked form. Establishment of this public library would vastly increase the accessibility and utility of the scientific literature, enhance scientific productivity, and catalyze integration of the disparate communities of knowledge and ideas in biomedical sciences.

We recognize that the publishers of our scientific journals have a legitimate right to a fair financial return for their role in scientific communication. We believe, however, that the permanent, archival record of scientific research and ideas should neither be owned nor controlled by publishers, but should belong to the public, and should be freely available through an international online public library.

To encourage the publishers of our journals to support this endeavor, we pledge that, beginning in September, 2001, we will publish in, edit or review for, and personally subscribe to, only those scholarly and scientific journals that have agreed to grant unrestricted free distribution rights to any and all original research reports that they have published, through PubMed Central and similar online public resources, within 6 months of their initial publication date.

Economics Faculty Create Change

by Marcus Kieltyka, Reference Librarian, Auburn University Library

This article will examine three recent innovations of scholarly communication within the discipline of economics through the framework of Albert Hirschman’s influential work, Exit, Voice, and Loyalty: Responses to Declines in Firms, Organizations and States (1970). Hirschman’s main thesis is that, when confronted with either real or imagined declining service, institutions and individuals react in two ways: either they abandon the current service, or they continue to use it but with complaint. As long as there is a mix of these two groups, argues Hirschman, the provider will have time to adjust to these demands. A reverse of this is that if all customers immediately exercise the exit option, the provider will not have any resources to realign and will be forced into bankruptcy. On the other hand, if everyone were to remain loyal, the firm would have no incentive to invest in change. Hirschman’s framework, applied to the services provided by publishers of scholarly journals, highlights the key role of faculty in effecting positive change in scholarly communication.

In higher education, scholarly publication is a vital method both for professional communication and for tenure qualification. Since the 1960s, the continued growth of knowledge and the rising number of researchers has led to an increased demand for scholarly publications, far outstripping the limited number of society- or university-based publications that existed in the mid-20th century. University of California, Santa Barbara Professor of Economics Theodore Bergstrom has documented that the number of English-language economics journals increased from nearly 30 in 1960 to about 120 in 1980 and almost 300 in 2000. Further, the ownership of English-language economics journals shifted dramatically to the commercial sector during this time period. Ownership moved from near-total university ownership in 1960 to a near-equal division by 1980 and a two-thirds commercial ownership in 2000.¹

The phenomenon was not unique to economics—it swept across many academic disciplines. In general, the academic community—including, until the 1980s, libraries—lived through trends such as these without significant comment or protest. Or, to use Hirschman’s terminology, without exercising voice. In retrospect, the consequences of this commercial dominance of scholarly journal publishing were profound. Prices for subscriptions escalated far above any estimates of inflation or growth in journal size.

To illustrate the results of commercialization on the price of economics journals, Bergstrom notes that, since 1995, the price of economics journals has increased at the rate of 13% per year. Between 1985 and 2001, the average

¹
real subscription prices to libraries for the top ten most-cited nonprofit journals increased by about 80%, while the top ten commercial journals increased 379%. Taking into consideration the average price per page, Bergstrom found increases of 50% for the same nonprofit journals and 173% for the commercial journals.²

Other research also confirms a significant discrepancy between journals published by commercial publishers versus those published by nonprofit publishers or societies. In a cross-disciplinary examination of journal titles’ cost effectiveness, George Soete, ARL, and Athena Salaba, University of Wisconsin, examined the cost of a journal subscription per 1,000 characters, compared it to a published journal impact assessment, and derived a cost-per-impact ratio.³ A journal’s impact was defined as the number of times articles in the journal were cited, a measure that is recorded in ISI’s (Institute for Scientific Information) Journal Citation Report. Using these measures, Soete and Salaba compared economics, physics, and neuroscience journals. What they found is that commercially published journals in all three fields are significantly less cost-effective than journals published by not-for-profit enterprises. The measure that they found most persuasive as an indicator of cost effectiveness was the cost/impact ratio. Lower cost/impact ratios mean greater cost effectiveness. In economics, the average cost/impact ratio for commercial journals (42.62) is about four times that for nonprofit journals (11.55). For comparison, in physics, the average cost/impact ratio for commercial journals (14.61) is 1.77 times higher than the average ratio for nonprofit journals (8.25). In neuroscience, the average for commercial journals (8.69) is 13.63 times that for nonprofit journals (0.64).

**The Library Response: A Mix of Voice, Exit, and Loyalty**

In an effort to respond to double-digit subscription rate increases for scholarly journals, libraries initially responded in ways that on the surface may look like mixed signals, illustrating all three of Hirschman’s framework of voice, exit, and loyalty. The strategy of voice is illustrated in countless articles, conference programs, letters, and both formal and informal library-vendor conversations about the spiraling increases in the costs of scholarly publishing, especially for scientific and technical journals. The intensity of voice grew especially during the mid- and late-1980s. In 1989, ARL published the

### Table 1. Nonprofit Journals: Prices and Pages, 1985 and 2001

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>PRICE</th>
<th>PAGES</th>
<th>$ PER PAGE</th>
<th>Year 2001</th>
<th>PRICE</th>
<th>PAGES</th>
<th>$ PER PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEA Journals</td>
<td>$160</td>
<td>4583</td>
<td>$0.03</td>
<td>$140</td>
<td>427</td>
<td>$0.03</td>
<td></td>
</tr>
<tr>
<td>Econometrica</td>
<td>$139</td>
<td>1525</td>
<td>$0.09</td>
<td>$241</td>
<td>1558</td>
<td>$0.14</td>
<td></td>
</tr>
<tr>
<td>J Political Ec</td>
<td>$80</td>
<td>1277</td>
<td>$0.06</td>
<td>$175</td>
<td>1337</td>
<td>$0.13</td>
<td></td>
</tr>
<tr>
<td>Quarterly J Ec</td>
<td>$77</td>
<td>1350</td>
<td>$0.06</td>
<td>$198</td>
<td>1467</td>
<td>$0.13</td>
<td></td>
</tr>
<tr>
<td>J Finance</td>
<td>$64</td>
<td>1528</td>
<td>$0.04</td>
<td>$207</td>
<td>2950</td>
<td>$0.07</td>
<td></td>
</tr>
<tr>
<td>J Consumer Res</td>
<td>$90</td>
<td>495</td>
<td>$0.18</td>
<td>$99</td>
<td>522</td>
<td>$0.19</td>
<td></td>
</tr>
<tr>
<td>Ec Journal</td>
<td>$160</td>
<td>1178</td>
<td>$0.14</td>
<td>$321</td>
<td>1983</td>
<td>$0.16</td>
<td></td>
</tr>
<tr>
<td>Rev Ec Studies</td>
<td>$104</td>
<td>725</td>
<td>$0.14</td>
<td>$180</td>
<td>818</td>
<td>$0.24</td>
<td></td>
</tr>
<tr>
<td>Rev Ev Statistics</td>
<td>$141</td>
<td>715</td>
<td>$0.20</td>
<td>$200</td>
<td>733</td>
<td>$0.27</td>
<td></td>
</tr>
<tr>
<td>Amer J Ag Ec</td>
<td>$24</td>
<td>460</td>
<td>$0.05</td>
<td>$134</td>
<td>1053</td>
<td>$0.10</td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>$104</strong></td>
<td><strong>1384</strong></td>
<td><strong>$0.10</strong></td>
<td><strong>$187</strong></td>
<td><strong>1637</strong></td>
<td><strong>$0.15</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. Commercial Journals: Prices and Pages, 1985 and 2001

<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>PRICE</th>
<th>PAGES</th>
<th>$ PER PAGE</th>
<th>Year 2001</th>
<th>PRICE</th>
<th>PAGES</th>
<th>$ PER PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>J Financial Ec</td>
<td>$175</td>
<td>609</td>
<td>$0.29</td>
<td>$1429</td>
<td>1974</td>
<td>$0.72</td>
<td></td>
</tr>
<tr>
<td>J Ec Theory</td>
<td>$410</td>
<td>1198</td>
<td>$0.34</td>
<td>$1800</td>
<td>2000</td>
<td>$0.90</td>
<td></td>
</tr>
<tr>
<td>J Econometrics</td>
<td>$463</td>
<td>1193</td>
<td>$0.39</td>
<td>$2020</td>
<td>2323</td>
<td>$0.87</td>
<td></td>
</tr>
<tr>
<td>J Monetary Econ</td>
<td>$146</td>
<td>406</td>
<td>$0.36</td>
<td>$1078</td>
<td>1371</td>
<td>$0.79</td>
<td></td>
</tr>
<tr>
<td>J Public Ec</td>
<td>$389</td>
<td>1187</td>
<td>$0.33</td>
<td>$1546</td>
<td>1817</td>
<td>$0.85</td>
<td></td>
</tr>
<tr>
<td>World Development</td>
<td>$413</td>
<td>1313</td>
<td>$0.31</td>
<td>$1548</td>
<td>2198</td>
<td>$0.70</td>
<td></td>
</tr>
<tr>
<td>European Ec Rev</td>
<td>$333</td>
<td>1206</td>
<td>$0.28</td>
<td>$1189</td>
<td>1902</td>
<td>$0.60</td>
<td></td>
</tr>
<tr>
<td>J Env Ec &amp; Mgmt</td>
<td>$78</td>
<td>395</td>
<td>$0.20</td>
<td>$650</td>
<td>697</td>
<td>$0.93</td>
<td></td>
</tr>
<tr>
<td>J Health Ec</td>
<td>$106</td>
<td>389</td>
<td>$0.27</td>
<td>$865</td>
<td>1137</td>
<td>$0.76</td>
<td></td>
</tr>
<tr>
<td>Ec Letters</td>
<td>$341</td>
<td>1237</td>
<td>$0.28</td>
<td>$1592</td>
<td>1492</td>
<td>$1.07</td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>$286</strong></td>
<td><strong>913</strong></td>
<td><strong>$0.30</strong></td>
<td><strong>$1372</strong></td>
<td><strong>1700</strong></td>
<td><strong>$0.82</strong></td>
<td></td>
</tr>
</tbody>
</table>

results of the ARL Serials Prices Project, which included the results of a study undertaken for ARL by Economics Consulting Services. The report studied four large publishers (Elsevier, Pergamon, Plenum, and Springer-Verlag) and documented that, from 1973-87, publishers' profits increased between 40% and 137%. The results indicated that the cost increases of journal subscriptions did not justify the price increases paid by research libraries. With ammunition from this study and others, the librarians' voice took on a new credibility.4

Another library response during the 1980s was the inevitable cancellation of journals. Since 1986, research libraries have canceled an average 6% of their journal subscriptions. During the same timeframe, the average research library's expenditures for serials have increased 170%. In 1999, a research library spent, on average, over $4 million for serials (journals, etc.). How and why libraries paid more every year to receive fewer journals is a complex story more fully documented elsewhere.5 In brief, however, during the last 20 years libraries pursued strategies to sustain journal collections as best they could, not because of their loyalty to the journal publishers, but from loyalty to faculty who are the contributing authors, reviewers, editors, and users of the journals in question. Libraries shifted monographic acquisition funds to pay for journals (and as a result reduced monographic acquisitions by a shocking 26%). In some cases, libraries sought and were able to secure additional budget allotments from parent institutions and outside funding to sustain journal and monographic collections. Recognizing the need to offer alternatives to local ownership of titles, libraries also improved document delivery systems and expanded consortium buying agreements, whereby one institution supplies other members with access to certain materials in return for access to other resources.

Even as libraries protested serial price increases, and as they continued to cancel titles, these voice and exit strategies were significantly eclipsed by library loyalty to sustaining the serials for their faculty. It became obvious that, absent the more active involvement of the faculty, library-based strategies would have little if any impact on the price-setting strategy of commercial publishers. It also became clear that there could be a negative impact on the long-term health of the library collection.

This was not a problem that could be solved solely via the library; this problem affected all the stakeholders in the system of scholarly communication. To change the system, it was essential to secure the awareness and involvement of faculty authors and editors in order to encourage them to raise their voice and to exit. After more than a decade of assembling data to demonstrate the problem, talking about the problem to stakeholders, and seeking allies to influence a positive change in the system of scholarly communication, the strategy is now showing signs of success.

The Emerging Faculty Response
Following are overviews of three developments in the field of economics, where faculty, dissatisfied as customers of commercial publishers, are taking action by initiating new and innovative publishing outlets that pledge to keep subscription fees at levels sustainable by the academic audiences they serve. In Hirschman's framework, it is now the faculty demonstrating a voice and exit strategy.

Berkeley Electronic Press
The first initiative is The Berkeley Electronic Press, or Bepress.com <http://www.bepress.com/>. Recognizing the dilemma previously outlined, Robert Cooter, the Herman Selvin Professor of Law at UC Berkeley, was frustrated by a 400% price increase of the journal he edited—an increase without any corresponding rise in revenues to authors, reviewers, or editors—after it was absorbed by publishing giant Reed-Elsevier. Working with two other Berkeley professors, Aaron Edlin and Benjamin Hermalin, and with David Sharnoff, a computer programmer, Bepress.com was formed.6

With a December 2000 official inauguration, Bepress.com has a unique Quality-Rating System that determines whether—not whether—a meritorious article will be published. Typically, Bepress.com journals are comprised of multiple titles. For example, The B.E. Journals in Macroeconomics is comprised of four unique titles: Frontiers, Advances, Contributions, and Topics. Each of these four titles are arranged by merit, similar to the practices of print journals, according to the following definitions:

- Frontiers: Suitable for publication in a top general interest journal.
- Advances: Suitable for publication in a very good general interest journal or a top field journal.
- Contributions: Suitable for publication in a very good field journal.
- Topics: Worthy of publication in an academic journal.

For an author, the process includes the benefits of:

1. Dealing with only one submission.
2. Avoiding delays by not requiring another set of referees to read the paper.
3. Enjoying greater autonomy. Authors are not required to revise and resubmit an article, unless the reviewer and editors believe that revision will upgrade the choice of journal in which it will be published.

Another innovation is the review system itself, known as the “Authors and Reviewers Bank.” This system works on two principles: either an author pays a review fee or, after submitting an article, he or she is required to pay back the “bank” by providing as many reviews as he or she receives. If a debtor does not review an article within a stipulated period of time, he/she is required to pay a compensation fee. In sum, the system creates a situation in which a reviewer is required to provide the same accurate
and timely work on others’ papers as was shown to his or her own article or face a fee.

As to the terms of copyright practiced at Bepress.com, it is the editors of the journals who make the final determination. However, the press strongly encourages editors to follow an author-friendly model, such as that employed by The B.E. Journals in Macroeconomics and The B.E. Journal in Theoretical Economics. For example, the author is not asked to assign copyright to the press, but is asked to grant Bepress.com a perpetual right to archive, publish, and republish the article as well as the right to make the article part of anthologies and to disseminate the article in other digital formats. The author is also asked to grant Bepress.com exclusive electronic rights for one year, with certain exceptions for personal use, such as the author’s personal website or non-commercial course website.

The Bepress.com mission statement addresses its pricing philosophy: “We aim to put the reader and scholarly author into direct contact at low cost without error or delay.” Currently, access to Bepress.com journals is free. At a later date access will be restricted, with plans calling for individual and institutional subscriptions.

ELSSS
A similar set of circumstances led Dr. Manfredi M. A. LaManna, a specialist in industrial organization at the University of St Andrews in Scotland, to launch an alternative publishing initiative with university and government support. Known as ELSSS, the Electronic Society for Social Scientists, it is a nonprofit society with a mission to “improve scientific communication in the social sciences, especially by the provision of electronic publications of high quality, wide diffusion and low cost for the direct benefit of the academic community.”

ELSSS <http://www.elsss.org.uk/> takes direct aim at Reed-Elsevier, the Anglo-Dutch publishing giant that has raised subscription prices for European subscribers even higher than for those in North America. The initial discipline addressed by ELSSS is economics. Currently, the ELSSS collection of 12 titles is available. Unique to this experiment is a set of six criteria that the founders have established to attain more equitable and efficient journal publishing in economics. The criteria are:

1. **High quality.** ELSSS will be publishing only high-quality journals.
2. **Equity.** ELSSS will produce and distribute journals efficiently on a non-profit-making basis, distributing any net surplus compatible with wide diffusion to authors, referees, and editors.
3. **Wide diffusion.** One of the most deleterious effects of the recent trend of soaring journal pricing by some commercial publishers has been the creation of a three-tier system, made up of 1) the very few libraries that have maintained periodical portfolios in the face of increasing subscriptions; 2) a large number of libraries forced to reduce journal collections to accommodate increased subscriptions; and 3) libraries that have been priced out of journal acquisition altogether. In contrast, ELSSS will enable all researchers (students and faculty) at subscribing libraries full access to its journals at substantially lower prices than comparative commercial journals. In addition, ELSSS will allow, free of charge, full access to all libraries and research centers in developing and transforming economies.

4. **Innovation.** ELSSS will strive to offer true state-of-the-art electronic services, including interactivity, full searchability, citation tracking, etc.

5. **Privacy and transparency.** ELSSS is committed to upholding the strictest standards of respect for individual privacy and for institutional transparency.

Data on and/or from individuals will be treated always as strictly confidential: under no circumstances will individual data be released to any third party, unless the individuals concerned explicitly and directly agree to any such release. On the other hand, ELSSS will grant the widest publicity and access to its own institutional data and structures, including data on circulation, pricing, remuneration, expenses, staffing, etc.

6. **Defense of authorship.** ELSSS aims at strengthening the proprietary rights of authorship by giving authors full copyright to all their material published in ELSSS journals and by ensuring the fair use of electronic resources.

**Economics Bulletin**
The third initiative is the journal Economics Bulletin <http://www.economicsbulletin.com/>. This international effort (based at the University of Illinois at Urbana) is explicitly designed to replace another of Reed-Elsevier’s journals: Economics Letters. In the view of Economics Bulletin editors, Economics Letters, through its high price ($1,492), 8-12 month publishing delays, and restrictive policies regarding content and copyright, has failed in its mission as an outlet for the wide and quick dispersal of new ideas.

As with the previous two initiatives, Economics Bulletin recognizes the damage that excessive price increases have wreaked not only upon large research university collections, but also sees the manner in which colleges and institutions in developing nations have all but been locked out of the information revolution. The Economics Bulletin website takes a matter-of-fact approach to the consequences of commercial publishing. The journal’s mission statement declares: “Traditional commercial publishers must make a priority of restricting access to information to those who have paid for the privilege. This necessarily puts them at odds with authors of
research who benefit from the widest possible dissemination of their work." The statement goes on to announce that the Economics Bulletin will be made available completely free of charge to all users: "Since subscription fees serve to exclude people from access, [we] do not intend to use them now or in the future. Modest submission fees will eventually cover the costs of the site."11

By definition, a letters journal is rapid reporting of ongoing research programs. Toward this end, Economics Bulletin aims to speed up the review process. In this case, the referees are asked to make only an up or down recommendation, with short explanations if possible. Requests for revisions will be the exception. The goal is to make decisions on submitted pieces within eight weeks and accepted papers will be published immediately. The Economics Bulletin's approach to copyright is to ask for the author's permission to publish the piece and to allow the authors to retain all other rights.12

Future Trends: More Voice, More Exit
In Hirschman's framework of loyalty, voice, and exit, these three new faculty publishing initiatives in economics, coupled with much more aggressive cancellation of journal subscriptions, might provide commercial publishers with the needed impetus to work within a more competitive framework.

Libraries and their institutions could help accelerate this change by redoubling their efforts to promote alternative publishing outlets such as Bepress.com, ELSS, and Economics Bulletin to faculty authors. One way this could be done is via outreach to campus faculty to inform them about these new publishing options. Of course, the success of this strategy is dependent on the readiness of the institution to embrace electronic publishing initiatives. Tenure review committees need to recognize the peer review processes of new, electronic presses as equally legitimate as the traditional systems in use with print journals. This is a culture change that needs active support from throughout the institution, including especially the academic leadership of the provost, deans, and senior faculty. There are other things, however, that the library could take the lead on.

Libraries can make these new and innovative resources readily accessible as part of library collections. For example, all three of the new publishing ventures described in this article could be prominently featured on the library's web page that describes economics research resources.

Libraries are very well positioned to partner with faculty in stimulating, supporting, and using these and other new innovative and affordable publishing outlets. Library outreach to local faculty may also identify editors who are ready to consider engaging in these projects or in similar projects for other disciplines.

The library can encourage any spark of interest by connecting faculty with resources that guide editors and editorial board members toward responsible journal publishing.13 Two of the three alternative outlets described above are not restricted to the economics discipline. Both Bepress.com and ELSS describe their scope as much broader. These could serve as publishers for other faculty who are ready to exercise their exit strategy from publishers that offer unsatisfactory service.

And finally, libraries can position themselves to support the faculty exit strategy very directly by providing the infrastructure needed by such initiatives. This is a new role for libraries, but one the organization can be very well suited to in order to speed change that is positive for higher education and research.

---


2 Ibid.


6 To date, the Bepress.com system has been widely supported in the field of economics and, according to one source, will bring "cutting-edge research to the public in a timely manner without undermining the peer-review process" (Laura D'Andrea Tyson, quoted in "E-economic Publishing," The Economist 356 [5 Aug. 2000]: 69).


13 For example, the SPARC/TRLN Declaring Independence booklet, a how-to handbook and website, and the ARL/SPARC/ACRL Create Change website, located at <http://www.arl.org/sparc/di/> and <http://www.createchange.org/>, respectively.

---

Copyright © 2001 Marcus Kieltyka
SYMPOSIUM ON MEASURING LIBRARY SERVICE QUALITY

by Martha Kyrillidou, ARL Senior Program Officer for Statistics and Measurement, and Kaylyn Higgs, ARL Web Developer and Analyst

On 20-21 October 2000 in Washington, D.C., the ARL-sponsored symposium “The New Culture of Assessment in Academic Libraries: Measuring Service Quality” was held to address the increasing interest in identifying new tools for assessing library performance. The meeting—which attracted 180 participants—featured an international array of experts in performance measurement, organizational effectiveness, and service quality. The program’s intent was to help the academic library community better understand the strengths and limitations of implementing service quality assessments. The program also provided a forum for an informed exchange of theoretical frameworks for measuring service quality and for considering the practical implications of implementing service quality measurements in libraries. Finally, it served to highlight the larger context surrounding the emerging ARL pilot effort known as LibQUAL+, a research and development project undertaken to define and measure library service quality across institutions and to create useful quality-assessment tools for libraries.

The new culture of assessment is a response to the increasing competition facing research and academic libraries, as well as higher education in general, in a fast-changing, information-rich environment. Research libraries are being called to both demonstrate outcomes in areas important to the institution and to maximize the use of resources. The goals of assessment include an organizational willingness to: embrace progressive change, identify best practices, learn from one another, and improve library operations and current practice.

International Research

The culture of assessment in libraries has strong international dimensions, as was evident from the presentations of Philip Calvert and Rowena Cullen (Victoria University of Wellington, New Zealand), Roswitha Poll (Universitäts- und Landesbibliothek Münster, Germany), and Ian Winkworth (University of Northumbria at Newcastle, U.K.). The symposium revealed much potential for international collaboration on assessing library service quality. For instance, Calvert reported on a cross-cultural study comparing perceptions of service quality among library users in New Zealand and China and unequivocally concluded that there are global commonalities in the way users think about library service quality.

SERVQUAL and Other Service Quality Assessment Efforts

The service quality assessment movement in U.S. research libraries has been influenced by the conceptual model of service quality developed by Valarie A. Zeithaml, A. Parasuraman, and Leonard L. Berry. The SERVQUAL model (see figure) identifies five potential gaps between expectations and perceptions, both internal and external, of service delivery. Gap 5—the gap between customers’ expectations and perceptions of the quality of a service—is the most user-focused gap and is the one that is most frequently measured. Keynote speaker Parasuraman (University of Miami) walked symposium participants through an extensive discussion of the SERVQUAL stream of research, including how to develop an understanding of the service quality dimensions being measured in various sectors of the economy and related methodological issues regarding measurement scales.

Service quality improvement efforts have gained popularity over the last decade in many research libraries and SERVQUAL is not the only assessment tool being used in these efforts. Pioneering research conducted by Danuta Nitecki (Yale University) and Peter Hennon (Simmons College), for example, has influenced the way research libraries are implementing assessment efforts. Service quality assessment has been implemented in libraries at various levels, ranging from specific service operations to organization-wide efforts. Despite the progress made over the last decade in emphasizing the user perspective, Shelley Higgs (University of Arizona) reminded us that libraries are still far from being customer driven operations—they are largely internally focused. Systematic efforts are needed to help libraries “listen to their users’ voices,” she insisted. Rowena Cullen also encouraged libraries to act on the results of quality assessment efforts, noting that, though we have a good understanding of the important library quality dimensions, we lack a demonstrated ability to act quickly on what users value.

LibQUAL+

The second day of the symposium was devoted to presentations related to the ARL LibQUAL+ project. Results from the spring 2000 pilot effort were presented by the LibQUAL+ design team and by representatives from two of the libraries that participated in the pilot. LibQUAL+ aims to understand how users think about and evaluate libraries. It is based on the idea that, if we want to improve libraries, we need to build upon a framework of users’ perceptions and expectations. The pilot data have shown that library users perceive library service quality on different levels—they simultaneously perceive libraries holistically and on a more detailed level that embraces the separate dimensions of empathy, place, collections, reliability, and access.

One of the key issues that LibQUAL+ addresses is the need for a balance between a global understanding of users’ needs and a local understanding related to specific services, locations, or user groups. LibQUAL+ attempts
to develop a protocol that is scalable and yet is useful for local planning and decision making. The results from the spring 2000 pilot showed that participating libraries were able to use the data for both diagnostic and comparative purposes. They were able to identify specific service areas that needed further improvement (for example, service to graduate students in the health sciences). At the same time, the libraries developed an understanding of how their institution compared to similar institutions and how the LibQUAL+ assessment effort relates to other large-scale assessment efforts they have in place.

In his presentation, Bruce Thompson (Texas A&M) defined several elements that the LibQUAL+ assessment protocol will be able to afford research libraries and possibly others. These include:

- An empirically validated and recoverable structure of the dimensions of user perceptions of research library service quality.
- An understanding of the relation between the holistic impression of library service quality and its more nuanced dimensions—i.e., What do we omit when we interpret the data at different levels of analysis?
- An understanding of psychometrically stable and reliable scores and of acceptable response rates.
- Development of standardized scores and/or normative data for descriptive or benchmarking purposes, applicable to individuals or to campuses.

As Thompson pointed out, the elements of his vision may not be necessarily what the community will adopt in the end, but they do point to possible future directions for library assessment from the user perspective.

In his commentary on LibQUAL+, Parasuraman observed that sharing results across the organization and involving all staff members in discussions about the meaning of user perceptions and expectations is a valuable educational exercise. Library staff, he noted, bring a richness of experience in the interpretation of service quality data and in implementing suggestions for bridging the gaps; staff input can be unparalleled in re-energizing the organization.

Parasuraman also remarked that LibQUAL+ and similar instruments and methods are not appropriate for creating and implementing new services. That is, these tools are useful for transactional as well as total market surveys of current users of current services; they are not appropriate for understanding what consumers will need in the future. Other methods, such as small-scale experimentation and implementation and case studies, are more appropriate for implementing new services for new users.

Electronic Service Quality Assessment
Parasuraman further discussed his vision of electronic service quality assessment. Since the late 1990s, the SERVQUAL stream of research has focused on studying how technology affects service delivery. Emerging technology is assuming a growing role in serving users, thus, understanding users’ technology readiness has become increasingly important. Technology readiness refers to people’s “propensity to embrace and use new technologies for accomplishing goals in home life and at work.” There are currently tools like the Technology Readiness Index (TRI) and conceptual frameworks in place for understanding and measuring electronic service quality (e-SQ).

The current dimensions of e-SQ include attributes such as:
- Access: the ability to get to the site quickly and to reach the organization as needed.
- Efficiency: the site is simple to use and requires a minimum of information to be input by the user.
- Personalization/customization: how much and how easily the site can be tailored to a customer’s preference and search history.
- Security/privacy: protection of personal information, and transactions being safe from intrusion.
- Site aesthetics.
- Reliability.
- Responsiveness.

As these frameworks are developed further, they will influence the way libraries evaluate electronic delivery of services as well as delivery of digital library services. Additionally, e-SQ could influence the development of the LibQUAL+ protocol.

Prescriptive vs. Descriptive Standards
With assumed agreement on the important dimensions comprising library service quality, the meeting concluded with a panel discussion regarding standards related to these dimensions. In particular, the presenters discussed the development of prescriptive, absolute standards tied to specific behavioral elements (for example, fulfilling information requests within a specified amount of time) versus the use of descriptive standards that provide a context for a specific library’s scores. The point was made that data on user perceptions, such as those collected via LibQUAL+, should not be seen as value judgments or as indicators for defining “good” or “bad” service, but rather as indicators for understanding institutional and user differences and similarities.

Ongoing Research
Duane Webster (ARL) delivered the symposium’s closing remarks, observing that this event showcased much of the work that has gone into measuring library service quality
while also revealing that much work remains to be done. With funding from the U.S. Department of Education’s Fund for the Improvement of Postsecondary Education (FIPSE), ARL will continue to develop LibQUAL+ through 2003. The goals of the funded project are to: (a) establish a library service quality assessment program at ARL; (b) develop web-based tools for assessing library service quality; (c) develop mechanisms and protocols for evaluating libraries; and (d) identify best practices in providing library service. Future opportunities for sharing and learning about developments in library assessment are the 4th Northumbria International Conference on Performance Measurement in Libraries and Information Services, to be held 12-16 August 2001 in Pittsburgh, and the ARL workshop led by Parasuraman and the LibQUAL+ team, “New Ways of Listening to Library Users: Tools for Measuring Service Quality,” to be held 22-23 September 2001 in Seattle. For more information on LibQUAL+, see <http://www.arl.org/libqual/>. To participate in LibQUAL+, contact Kaylyn Hipps, ARL Web Developer & Analyst, <kahayl@arl.org>. Slideshows and drafts of the papers delivered at this meeting are available on the symposium website at <http://www.arl.org/libqual/events/oct2000msq/program.html>; final versions of the papers will be published as Library Trends (spring 2001). Selected video and audio clips of the presentations will be available on the symposium website in the near future.

5 See <http://www.arl.org/libqual/events/listen/>.

ARL-QUALITY
To track ARL activities regarding library service quality assessment, subscribe to the <arl-quality> electronic distribution list. Send e-mail to <listproc@arl.org> with the following text in the body of the message (leave the subject line blank): subscribe ARL-QUALITY your full name.
ARL Calendar 2001

April 30–May 18 Coaching for Performance
Online Lyceum Course

May 3–4 New Ways of Listening to
Library Users: Tools for
Measuring Service Quality
Washington, DC

May 7–18 Goal Setting
Online Lyceum Course

May 14–16 Facilitation Skills Institute
Kansas City, MO

May 22–25 ARL Board and
Membership Meeting
Toronto, Ontario

June 6–8 Managing Group Process:
Advanced Facilitation Lab
Chicago, IL

June 7–8 From Data to Action
Washington, DC

June 25–August 3 Measuring Library Service
Quality Online Lyceum Course

June 27–29 Building on Strength:
Developing an ARL Agenda
for Special Collections
Brown University
Providence, RI

July 23–24 ARL Board Meeting
Washington, DC

August 12 Creating a Culture of
Assessment Workshop
Pittsburgh, PA

August 12–16 4th Northumbria
International Conference
Pittsburgh, PA

August 13–14 Licensing Workshop
Novi, MI

August 18–24 IFLA Annual Conference
Boston, MA

September 22–23 New Ways of Listening to
Library Users: Tools for
Measuring Service Quality
Seattle, WA

October 10–12 Library Management Skills
Institute I: The Manager
San Antonio, TX

October 16–19 ARL Board and
Membership Meeting
Washington, DC

November 7–9 Project Management Institute:
Getting Things Done or Getting
the Outcomes You Want
Raleigh-Durham, NC

November 8–9 Shaping ILL/DD Services for the 21st Century
University of Michigan/ARL
Ann Arbor, MI

November 12–13 Creating a Culture of
Assessment Workshop
Washington, DC

November 29–30 CNI Fall Task Force Meeting
San Antonio, TX