Research and Publication in the Digital Age

Gerald Jay Schafer, University of Massachusetts - Amherst

Available at: https://works.bepress.com/schafer_jay/2/
Research and Publication in the Digital Age
UMass Amherst Faculty Senate
February 9, 2006

Jay Schafer
Director of Libraries
UMass Amherst Libraries
FY06 Costs & % Increase

• Science Direct
  $ 761,626.
  • 6.5% over FY05

• BioOne
  $ 10,440.
  • 13.0% over FY05

• ACS Publications
  $ 54,748.
  • 8.0% over FY05
## Journal Cost History – Sciences

<table>
<thead>
<tr>
<th>Subject</th>
<th>% Change 04-05</th>
<th>% Change 01-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>7%</td>
<td>37%</td>
</tr>
<tr>
<td>Biology</td>
<td>7%</td>
<td>37%</td>
</tr>
<tr>
<td>Botany</td>
<td>9%</td>
<td>36%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6%</td>
<td>34%</td>
</tr>
<tr>
<td>Math &amp; Comp Sci</td>
<td>6%</td>
<td>31%</td>
</tr>
<tr>
<td>Physics</td>
<td>7%</td>
<td>35%</td>
</tr>
<tr>
<td>Zoology</td>
<td>7%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: *Library Journal*, April 15, 2005
# Journal Cost History - Humanities

<table>
<thead>
<tr>
<th>Subject</th>
<th>% Change 04-05</th>
<th>% Change 01-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art &amp; Architecture</td>
<td>7%</td>
<td>26% (lowest)</td>
</tr>
<tr>
<td>History</td>
<td>10%</td>
<td>42%</td>
</tr>
<tr>
<td>Lang &amp; Lit</td>
<td>9%</td>
<td>42%</td>
</tr>
<tr>
<td>Music</td>
<td>18%</td>
<td>49%</td>
</tr>
<tr>
<td>Philosophy/Religion</td>
<td>8%</td>
<td>41%</td>
</tr>
</tbody>
</table>

Source: *Library Journal*, April 15, 2005
# Journal Cost History – Social Sciences

<table>
<thead>
<tr>
<th>Subject</th>
<th>% Change 04-05</th>
<th>% Change 01-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>5%</td>
<td>33%</td>
</tr>
<tr>
<td>Political Science</td>
<td>10%</td>
<td>57% (highest)</td>
</tr>
<tr>
<td>Psychology</td>
<td>9%</td>
<td>39%</td>
</tr>
<tr>
<td>Sociology</td>
<td>9%</td>
<td>46%</td>
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</tbody>
</table>

Source: *Library Journal*, April 15, 2005
UMass Amherst Libraries Acquisitions Budget
FY 01 - FY 06

<table>
<thead>
<tr>
<th></th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
<th>FY04</th>
<th>FY05</th>
<th>FY06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain FY01 Buying Power (7%)</td>
<td>$5,407,539</td>
<td>$5,789,057</td>
<td>$6,191,091</td>
<td>$6,924,465</td>
<td>$7,088,161</td>
<td>$7,564,353</td>
</tr>
<tr>
<td>Adjust to Consumer Price Index</td>
<td>$5,407,539</td>
<td>$5,553,543</td>
<td>$5,681,274</td>
<td>$5,772,174</td>
<td>$5,933,705</td>
<td>$6,135,544</td>
</tr>
<tr>
<td>Actual Spending</td>
<td>$5,322,512</td>
<td>$3,773,978</td>
<td>$5,380,780</td>
<td>$5,212,503</td>
<td>$5,428,463</td>
<td>$5,678,847</td>
</tr>
<tr>
<td>Base Budget</td>
<td>$5,407,539</td>
<td>$3,571,130</td>
<td>$4,571,074</td>
<td>$4,921,462</td>
<td>$5,221,862</td>
<td>$5,221,462</td>
</tr>
</tbody>
</table>
The annual Horizon Report describes the continuing work of the NMC’s Horizon Project, a research-oriented effort that seeks to identify and describe emerging technologies likely to have a large impact on teaching, learning, or creative expression within higher education. The third edition in this annual series, the 2006 Horizon Report is a collaboration between the New Media Consortium and the EDUCAUSE Learning Initiative, an EDUCAUSE program.
Horizon Report – Key Trends

• Dynamic knowledge creation and social computing tools and processes are becoming more widespread and accepted
• Mobile and personal technology is increasingly being viewed as a delivery platform for services of all kinds
• Consumers are increasingly expecting individualized services, tools, and experiences, and open access to media, knowledge, information and learning
• Collaboration is increasingly seen as critical across the range of educational activities, including intra- and inter-institutional activities of any size or scope.
Horizon Report
Critical Challenges

• The typical approach of experimentally deploying new technologies on campuses does not include processes to quickly scale them up to broad usage when they work, and often creates its own obstacles to full deployment.

• The phenomenon of technical “churn” is bringing new kinds of support challenges.
Horizon Report

Critical Challenges

• Peer review and other academic processes, such as promotion and tenure reviews, increasingly do not reflect the ways scholarship actually is conducted.

• Information literacy should not be considered a given, even among “net-gen” students.

• Intellectual property concerns and the management of digital rights and assets continue to loom as largely unaddressed issues.
Janus Conference on Research Library Collections
Managing the shifting ground between writers and readers
The Internet is, without a doubt, the single most important reason for Janus to look forward. Through its disruptive success, the Internet has redefined the nature of collections, the relationship of private and public goods, and the role of the library in its communities. Among the Internet-influenced changes we now contend with are the malleability and perishability of digital information, and a change in the locus of collections from one of local use by well-known constituents, to one in which users can be neither described nor anticipated.
Six Key Challenges for Collection Development in Research Libraries

- RECON
- PROCON
- Core Definitions
- Licensing Principles
- Archiving
- Alternative Channels
RECON – Converting the scholarly record

The library community needs to develop and implement a coordinated, standards-based, cost effective plan to digitize the nation’s retrospective holdings.
Projects

Metamedia archives are developed for use in classes at the MIT School of Humanities, Arts, and Social Sciences. Students are offered the chance to explore creative expressions of the human imagination, understand the human past and examine the social, economic and political change over time and the cultural and institutional contexts in which science and technology are rooted.

American Authors
A digital resource for originating media artifacts with literary texts.

Berliner Salons
A Hypermedia Documentary Integrating the Study of German Culture and Language.

Cultura
Web-based initiative to develop foreign language students' understanding of foreign cultures.

Early Comics
Resource for scholars and fans of Early American Comics.

Espana de Cortez
A Web-based module on Spanish Life and Culture

Handel's Prototype Performance Archive
Documentation of the process of performance production.

Digital Dance Archive
Using multimedia to enhance the study of modern dance.

MIT UPCI Archive
An online educational community for MIT and UPCI Students.

Shakespeare Electronic Archive
An electronic environment for teaching and research on the works of William Shakespeare.
The Core Historical Literature of Agriculture (CHLA) is an e-resource collection of agricultural texts published between the early nineteenth century and the middle to late twentieth century. Full-text materials cover agricultural economics, agricultural engineering, animal science, crops and their production, food science, forestry, human nutrition, soil sociology, and soil science. Scholars have selected the titles in this collection for their historical importance. Their evaluations and 4,300 case titles are detailed in the seven-volume series The Literature of the Agricultural Sciences, Wallace C. Clock, series editor.

Current online holdings: Pages: 958,254 Books: 1,348 (1,910 Volumes) Journals: 5 (238 Volumes)

For a related collection of rare texts in the disciplines of home economics, see Home Economics Archive: Research, Tradition and History (HEARTH) at http://hearth.library.cornell.edu


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As stewards of the Papers of W.E.B. Du Bois, the Department of Special Collections and University Archives has a unique obligation to promote engagement with the ideas and legacy of one of America’s foremost intellectuals and advocates for social justice. In the coming months, we plan to make selections of Dr. Du Bois’ writings publicly available in electronic format through this page, adding enhanced information about our collections of manuscripts and photographs, along with exhibits drawn from SCUA holdings.

Several of Du Bois’ published works have already passed into the public domain and have been made available to the public in digital form.
Building a digital archive of global content for universal access.

→ Participate Now

Google Book Search

Search the full text of books (and discover new ones).
by M. F. (Moses Foster) Sweetser - 1883 - 117 pages
Page 1 - It is more expensive to travel in New England than in any part of Western Europe.
The usual charge per day at the best hotels is $4 to $4.50, ...
[ More results from this book ]

Best Places to Stay in New England: Bed & Breakfasts, Country Inns, and Other...
by Christina Tree, Kimberly Grant - Travel - 2000 - 704 pages
Page xv - Since 1984, Kim has also contributed to the Berlitz Travellers Guide to New England and various regional Fodor's and Frommer's guidebooks. ...
[ More results from this book ]

The New England Knight: Enrichment, Advancement and the Life of Sir William...
by Emerson W. Baker, John G. Reid - Biography & Autobiography - 1996 - 359 pages
Page 8 - ... was well positioned to attract local Native travellers as well as Englishmen, ... The Council for New England succeeded in 1622 in prompting the English ...
[ More results from this book ]

Travels in New-England and New-York
by Timothy Dwight - 1823
Page 258 - *Much has been said by former travellers of the familiarity and rudeness of the ...
... of the New England states me conspicuous for their domestic virtues. ...
[ More results from this book ]
PROCON – Ensuring future publications are in digital form.

Research libraries are committed to moving to an environment in the medium term future (e.g., by the end of the decade), in which most newly published materials are acquired in digital form. Research libraries will work with scholars, publishers, and each other in order to achieve this. Research libraries agree to shift to e-only by 2008 for those publications that are available in both print and electronic form including: journals, reference books, textbooks, government documents and other areas like electronic books as the electronic publishing models develop. A complete transition to digital form by 2008 is dependent on the existence of trusted archives for digital content.
Archiving

Ensure the coordinated, long-term maintenance of traditional and digital holdings.
Archiving

With the exception of clearly defined special collections materials, all print materials published between 1830 and 1960 should be transferred to a regional print repository (constructed, if necessary, for that purpose). Each regional repository should sell or discard any duplicates it receives that are available in other repositories (so that it retains only one copy).
Welcome!

The Five College Library Depository (FCLD) is a high density storage facility for the lesser-used materials from the libraries of Amherst College, Hampshire College, Mount Holyoke College, Smith College, and University of Massachusetts Amherst. All materials in the FCLD are listed in the Five College Joint Catalogs.
Archiving

At the same time, all digital objects selected by all research libraries should be added to an OAIS-based repository that can meet the certification requirements as defined by RLG/NARA.
Urgent Action Needed to Preserve Scholarly Electronic Journals

Digital preservation represents one of the grand challenges facing higher education. In field after field, research and teaching are generating data, reports, publications, teaching materials, and other forms of scholarly communication in digital formats. Research and teaching are also increasingly dependent on data mining tools and other computer-based techniques that require the long-term persistence of these various forms of digital information to advance knowledge. Yet as the creation and use of digital information accelerate, responsibility for preservation is diffuse, and the responsible parties—scholars, university and college administrators, research and academic libraries, and publishers—have been slow to identify and invest in the necessary infrastructure to ensure that the published scholarly record represented in electronic formats remains intact over the long-term. Inaction puts the digital portion of the scholarly record—and the ability to use it in conjunction with other information that is necessary to advance knowledge—increasingly at risk, and solutions may require unique arrangements within the academy for sharing preservation responsibility.

Edited by Donald J. Waters
Program Officer
The Andrew W. Mellon Foundation
October 15, 2005

http://www.diglib.org/pubs/waters051015.htm
The mission of Portico is to preserve scholarly literature published in electronic form and to ensure that these materials remain accessible to future scholars, researchers, and students.

Initial support for Portico is provided by The Andrew W. Mellon Foundation, Ithaka, The Library of Congress, and JSTOR.
Why We Need Institutional Repositories

It used to be that the record of scientific work was complete when it had been published in a journal. Now, with the growth of research repositories, the record of scientific work is more complete when it is archived in a repository. This means that researchers can access and build upon the work of others more easily, and that the value of research is increased.
Alternative Channels for Scholarly Communication

Create a network of publishing structures that scholars can use as a supplement or alternative to standard scholarly publishing channels.
The open access movement: Putting peer-reviewed scientific and scholarly literature on the internet. Making it available free of charge and free of most copyright and licensing restrictions. Removing the barriers to serious research.
Open access increases research impact.

In 1997–1998, 85 percent of the most highly cited articles were open access. Articles with lower citation impact were more likely to be restricted access.
Policy on Enhancing Public Access to Archived Publications Resulting from NIH-Funded Research
Retain rights to your publications! MIT’s Amendment to Publication Agreement

MIT’s Amendment to Publication Agreement [MSWord]

Author’s Addendum
Use it to retain the rights you need for the journal articles you create
An Open Letter to All University Presidents and Provosts Concerning Increasingly Expensive Journals

by Theodore Bergstrom and R. Preston McAfee

For nearly a century, a symbiotic relationship existed between scholars and scholarly publishers. Academics freely provided their discoveries, work, and time editing and reviewing, and scholarly publishers provided packaging and sold the output of the academics' labors for a modest profit. This benefited both groups, because the publishers received the most valuable inputs for free, while the academics were sheltered and protected from the marketplace.

**Journal Cost-Effectiveness**

Use this search engine to find internationally-published journals and rank them by price per article or citation.

| Title: | journal of Pacific history |
| Publisher: | |
| ISSN: | |

Search tips:
- ? for one unknown character
- * for zero or more unknown characters
- "exact phrase"
- ^ = Not
- blank field = all

It is time to recognize a simple fact, and react to it. The symbiotic relationship between academics and for-profit publishers has broken down. The large for-profit publishers are gouging the academic community for as much as the market will bear. Moreover, they will not stop pricing journals at the monopoly level, because shareholders demand it.
The Internet is, without a doubt, the single most important reason for Janus to look forward. Through its disruptive success, the Internet has redefined the nature of collections, the relationship of private and public goods, and the role of the library in its communities.

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