

## INITIATIVES ON MEASURING ELECTRONIC USE

Many library organizations have embarked on initiatives related to the measurement and assessment of electronic use. Each organization has identified this issue as a strategic one that needs further attention. Most organizations are concentrating their efforts on working with vendors to provide complete, accurate, and comparable use statistics to libraries.

The **Association of Research Libraries (ARL)** has established the E-Metrics working group to focus on issues related to the measurement and assessment related to electronically delivered content and services. The working group was created under the auspices of the New Measures Initiative. ARL sponsored a major study to develop a standard approach for measurement and statistics for networked resources, led by Charles R. McClure and Wonsik "Jeff" Shim of the Information Use Management and Policy Institute at Florida State University. Both are recognized experts in library assessment. A group of 24 ARL libraries will participate in the study.

The following excerpt from the initial press release announcing the study summarizes the project's approach:

The E-Metrics project will be conducted in three phases. Phase I (May-October 2000) will gather in a systematic way information about current ARL libraries' best practices in statistics, measures, processes, and activities that pertain to networked resources and services. The resulting inventory and analysis will serve as a basis for the second phase of the project, to be conducted November 2000-June 2001. During that time, a methodology will be developed and tested to assess the degree to which such data collection is possible and collected data are comparable among member libraries. During the project's third and final phase (July 2001-December 2001), a set of refined measures will be proposed to ARL, complete with data descriptions and guidelines for data collection, analysis, and use. The products from the project—a set of tools, processes, and techniques—will be useful to the library community in general as it looks to provide electronic resources to their communities.

Many reports and articles have been written that describe the ARL E-Metrics initiative. Here are some articles that may be helpful in planning your own measurement effort.

### Phase I report:

Shim, Wonsik; McClure, Charles R.; Bertot, John Carlo. "ARL E-metrics Project: Developing Statistics and Performance Measures To Describe Electronic Information Services and Resources for ARL Libraries—Phase One Report." (Nov. 7, 2000). [www.arl.org/stats/newmeas/emetrics/phaseone.pdf](http://www.arl.org/stats/newmeas/emetrics/phaseone.pdf).

### Phase II report:

Shim, Wonsik; McClure, Charles R.; Bertot, John Carlo; Dagli, Arif; Leahy, Emily H. "Measures and Statistics for Research Library Networked Services: Procedures and Issues ARL E-metrics Phase II Report." (October 2001) [www.arl.org/stats/newmeas/emetrics/phasetwo.pdf](http://www.arl.org/stats/newmeas/emetrics/phasetwo.pdf).

Phase III involved the creation of a manual that libraries can follow to organize and record measurement data related to their electronic resources and services:

Association of Research Libraries (ARL):  
[www.arl.org](http://www.arl.org)

Source: Association of Research Libraries. "ARL begins E-Metrics Project." Press Release dated June 26, 2000.  
<http://arl.org/stats/newmeas/emnews.html>

Shim, Wonsik; McClure, Charles R.; Fraser, Bruce T.; Bertot, John Carlo. "Data Collection Manual for Academic and Research Library Network Statistics and Performance Measures." (December 2001). [www.arl.org/stats/newmeas/emetrics/phase3/ARL\\_Emetrics\\_Data\\_Collection\\_Manual.pdf](http://www.arl.org/stats/newmeas/emetrics/phase3/ARL_Emetrics_Data_Collection_Manual.pdf).

The following articles provide summaries and updates regarding the accomplishments of ARL's ongoing efforts in this area:

McClure, Charles R. "Developing Statistics and Performance Measures To Describe Networked Information Services and Resource for ARL Libraries: Discussion Prospectus." (Dec. 15, 1999). [www.arl.org/stats/program/mcclure.html](http://www.arl.org/stats/program/mcclure.html).

Shim, Wonsik; McClure, Charles R.; Bertot, John Carlo. "Data Gathering Practices in the Networked Environment." *ARL: A Bimonthly Report on Research Library Issues and Actions* (December 2000). [www.arl.org/newsltr/213/data.html](http://www.arl.org/newsltr/213/data.html).

Miller, Rush; Schmidt, Sherrie. "E-Metrics: Measures for Electronic Resources." Keynote address for the 4<sup>th</sup> Northumbria International Conference on Performance Measurement in Libraries and Information Services (August 15, 2001). [www.arl.org/stats/newmeas/emetrics/miller-schmidt.pdf](http://www.arl.org/stats/newmeas/emetrics/miller-schmidt.pdf).

Shim, Wonsik; McClure, Charles R.; Bertot, John Carlo. "Measures and Statistics for Research Library Networked Services". *ARL Newsletter*, No. 219 (December 2001). [www.arl.org/newsltr/219/emetrics.html](http://www.arl.org/newsltr/219/emetrics.html).

Shim, Wonsik. "Measuring Services, Resources, Users, and Use in the Networked Environment." *ARL: A Bimonthly Report on Research Library Issues and Actions*, No. 210 (May 2001) [arl.org/newsltr/210/emetrics.html](http://arl.org/newsltr/210/emetrics.html).

The **International Coalition of Library Consortia** or ICOLC has taken a significant interest in obtaining use statistics. ICOLC consists of about 150 library consortia from around the world. The organization's main focus is higher education. ICOLC, though informal, is influential. Many libraries are indirectly represented by ICOLC given that each participating consortium in turn represents many libraries.

ICOLC takes great interest in issues of scholarly publishing and works to influence the providers of electronic content to better meet the interests of library consortia. Increasingly, libraries are acquiring content, not through individual contracts made with publishers, but through participation in consortia. A consortium typically negotiates a broad contract with an information provider, which ensures access for each member library at a lesser cost than would be possible if each licensed the content individually.

One of the major concerns with consortial arrangements lies in being able to measure how the information products involved are used by the clientele of each participating library. ICOLC has been an active participant on this front and created a set of guidelines that describe the statistical measures it expects information providers to make available to the libraries that license their products. The ICOLC guidelines are examined later in the section on vendor-provided statistics.

The **Digital Library Foundation** is a consortium of libraries with common interests in issues about electronic collections. Many DLF members create digital collections. The organization emphasizes the measurement and assessment related to the use of electronic collections and services. DLF commissioned a report that studies the methods employed by a group of 24 DLF member libraries to measure and assess the use of their online resources

ICOLC:  
[www.library.yale.edu/consortia](http://www.library.yale.edu/consortia)

[www.library.yale.edu/consortia/2001webstats.htm](http://www.library.yale.edu/consortia/2001webstats.htm)

Digital Library  
Foundation:  
[www.diglib.org](http://www.diglib.org)

[www.clir.org/pubs/reports/pub105/contents.html](http://www.clir.org/pubs/reports/pub105/contents.html)

Equinox:  
<http://equinox.dcu.ie>

NISO: [www.niso.org](http://www.niso.org)

and services. The report, titled "Usage and Usability Assessment: Library Practices and Concerns," authored by Denise Troll Covey, is one of the most thorough treatments of the topic.

A group of European libraries collaborated in a project called EQUINOX: Library Performance and Quality Management System. The project was active November 1998 through November 2000. The group worked to develop a set of performance indicators that present a set of measurements for electronically provided services equivalent to earlier benchmarks established for traditional library services. The project identified a set of 14 performance indicators:

1. Percentage of the population reached by electronic library services
2. Number of sessions on each electronic library service per member of the target population
3. Number of remote sessions on electronic library services per member of the population to be served
4. Number of documents and entries (records) viewed per session for each electronic library service
5. Cost per session for each electronic library service
6. Cost per document or entry (record) viewed for each electronic library service
7. Percentage of information requests submitted electronically
8. Library computer workstation use rate
9. Number of library computer workstation hours available per member of the population to be served
10. Rejected sessions as a percentage of total attempted sessions
11. Percentage of total acquisitions expenditure spent on acquisition of electronic library services
12. Number of attendances at formal electronic library service training lessons per member of the population to be served
13. Library staff developing, managing and providing ELS and user training as a percentage of total library staff
14. User satisfaction with electronic library services

The project team determined the data sets of quantitative measurements necessary to calculate these performance indicators and a described systematic approach that libraries could follow in collecting statistics and performing the calculations to assess their performance in each area. The group concluded its work in November 2000.

**NISO**, the National Information Standards Organization, has ongoing initiatives related to performance measures and statistics for libraries. The NISO standard applicable to library statistics, Z39.7, established in 1968, was updated in 1995. The organization held the NISO Forum on Statistics and Performance Measures, Feb. 15–16, 2001, as part of an effort to review the standard, especially toward expanding its scope to include electronic resources and services. Although no action was taken to bring the problem of electronic resource measurement and statistics into the formal standard, participants agreed that NISO could serve as a clearinghouse for information sharing in this arena, facilitate cooperative efforts, and create publications describing best practices.