Measuring Services, Resources, Users, and Use in the Networked Environment

by Wonsik "Jeff" Shim, Assistant Professor, and Charles R. McClure, Director, Information Use Management and Policy Institute, School of Information Studies, Florida State University

In May 2000, ARL embarked on a project that will change the way in which ARL libraries collect, process, and use statistics and measures in the delivery of networked information resources and services. Directing the study are Charles R. McClure and Jeff Shim, of Florida State University's Information Use Management and Policy Institute, who have teamed with a group of 23 participating ARL libraries and with ARL staff to develop statistics and performance measures that describe information services and resources in the networked environment. The project's advisory committee, headed by Sherrie Schmidt of Arizona State University and Rush Miller of University of Pittsburgh, will provide feedback and suggestions that help shape the course of this project. This project is an important step in addressing issues such as resource allocation, improved service quality, and higher education outcomes in the networked environment.

While the ever-increasing number of electronic sources and the advent of the Internet as the primary vehicle for data provision and retrieval have opened many exciting opportunities for research libraries, they have also caused some frustration for library administrators. Networked resources and services tend to be more expensive than traditional services and there are not yet enough data that answer such critical questions as, "Who is using the services for what purpose, and what is the impact of new and improved services on the users and research institution?" Examples of possible statistics needed in this new environment include:

- count of electronic reference transactions;
- count of visits (sessions) to the library's website;
- counts of high-use and low-use web pages;
- count of sessions on specific databases;
- IP addresses for users of specific databases;
- time per session on specific databases;
- count of turn-aways per time period per specific database;
- primary use of selected electronic services and resources;
- hours of user training on electronic services conducted by library staff;
- cost per session on specific databases;
- count of full-text downloads per time period per database;
- file size of full-text downloads per time period per database; and
- count of on-site versus remote sessions per database.

These statistics are illustrative only--agreement on definitions and data collection methods to produce reliable and valid statistics, determination of the degree to which such statistics can be comparable across different libraries, and identification of linkages between such statistics and higher educational outcomes are all yet to be accomplished.

ARL libraries, however, are not sitting idle in the face of these problems. As seen in the ARL-sponsored meeting on New Measures held in February 2000 in Scottsdale, Arizona, several libraries are taking the initiative in collecting and reporting these kinds of data. The range of collected data and approaches is quite impressive. Thus, the objective of this project's initial phase (May-October 2000) is to tap into ARL libraries' best practices in statistics, measures, processes, and activities that pertain to networked resources and services.

Based on the knowledge inventory created in the project's first phase and drawing on previous initiatives such as the International Coalition of Library Consortia (ICOLC), an initial set of data that need to be collected will be identified and field-tested at selected libraries during the second phase of the project (November 2000-June 2001). This process will assess the degree to which such data collection is possible and the 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. When the project is completed, the research library community will be in a much better position to describe both traditional and emerging electronic resources and services. The products from the project-- a set of tools, processes, and techniques--will assist research libraries to better meet the needs of their users and make better decisions regarding the purchase and deployment of electronic services and resources. In the process, we will learn a great deal about the impact of networked services on existing services, technology infrastructure, and organizational structure.

One of the major concerns that ARL libraries share is the inconsistency in database vendor statistics. Typically an ARL library deals with several dozen database vendors, who provide statistics in different formats and with poor or inconsistent definitions. Furthermore, libraries often receive these vendor-provided statistics on an irregular basis. Working with an ARL Task Force on Statistics from Vendor-Based Database Products, at the end of the project, we would expect to reach an agreement with major database vendors on:

- data element definitions and terms;
- specific statistics and data that can be collected; and
- methods for reporting these data to libraries.

By bringing critical mass to bear in the marketplace, and working toward agreement on consistent data elements and definitions as well as more responsive reporting practices, one of the most visible and significant contributions of the project would be comparable and timely vendor reports.

Although establishing a set of measures that are collected across ARL libraries is an important goal in its own right, this project will also explore the possible relationship(s) between networked services and resources and higher education outcomes. Specifically, the project team will investigate where and how networked services and resources contribute to accomplishing selected outcomes. Activities toward this goal will be carried out throughout the project phases. Upon the project's completion, a proposal will be developed for potential funding agencies to support continued research and development on this issue, as the problem of demonstrating the importance and impact of network-based information services is becoming more prevalent in a wide spectrum of organizations.

This project is an important and exciting undertaking for several reasons:

- The decision of a significant number of ARL libraries to contribute money and staff time to the project suggests that developing measures for networked resources and services is a critical problem that requires immediate attention.

- This project affirms the importance of learning from best practices. Time and again we discover that some of the best things are done by our peers. The project will be an exciting opportunity to showcase and promote the best practices that are happening in the area of measurement of networked information services and resources.

- Finally, this project demonstrates the value of collaborations among ARL libraries as we collectively deal with evolving technologies and changing environments.

Throughout the project's three phases, information about the study and its activities will be available through the ARL New Measures Initiative website at <http://www.arl.org/stats/newmeas/newmeas.html>, which also hosts resources relating to the other ARL new measures projects. For further information about any of the ARL new measures projects, contact Martha Kyrillidou, ARL Senior Program Officer for Statistics and Measurement.

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