1. Background and Definitions

This topic addresses tomorrow’s library, which is assumed to be a mix of electronic and tradition resources. Some traditional resources will be within the user’s community; others will be held across the globe. Some electronic resources will be locally created and stored; others will be spread around the world.

The role of the library in this measure is to build local traditional and electronic collection and arrange access to collections in other places. That access should be where the user wants it and when he or she wants it. Each user should be able to do her work without mediation, or with mediation done through software design. Users’ interactions should be as intuitive as possible, with natural language interaction being the goal.

Results of success may be counter-intuitive: fewer users in the library building, fewer reference queries. Measures should be developed that address both success in accessing information in a timely manner and satisfaction with what is accessed.

Ease and breadth of access builds on historical and on-going work. Librarians must continue their roles of purchasing or contracting for access to materials of interest to their user communities. This includes buying books and journals and licensing electronic materials. Librarians must continue describing materials of scholarly interest, creating cataloging records in traditional and emerging forms. Librarians must maintain and enhance mechanisms for identifying and requesting materials, through patron-initiated interlibrary loan and reciprocal borrowing and through direct request of electronic information. Work must continue in transforming materials into electronic form and in capturing and preserving materials created in that form.

Our users have always wanted immediate access to everything of interest to them. The work of librarians in this century has brought that option closer. Standard bibliographic control, machine-readable records, electronic union catalogs, interlibrary loan protocols, internet fax, consortial borrowing, full text on demand – these have all brought that goal closer. Our challenge now is to measure progress toward that goal.
2. Development of Measures

The types of measures to be developed can be categorized in several ways. One set of measures could be considered "Passive Measures" and address what materials are available for use:

- Physical volumes held in local collections
- Physical volumes available through consortial arrangements
- Electronic publications available
- Percentage of publications available in electronic form

These measures can be collected as part of the statistical data collection done by libraries annually.

Another type of measure is "Active Measures" that speak to the use of materials:

- Percentage of physical materials on-shelf at time of search
- Speed of retrieval of materials not found on first search
- Delivery time for materials from consortial partners
- Delivery time for interlibrary loans
- User satisfaction with speed of access
- User satisfaction with quality of material received

Data for these measures can be capture through statistical means, surveys, and questionnaires. Much of this activity can be benchmarked for performance with similar operations.

3. Next Steps

The area of data collection for electronic services is one in which several organizations are already working and might provide information or even partnership opportunities. For example, the International Coalition of Library Consortia (ICOLC) has promulgated "Guidelines for Statistical Measures of Usage of Web-Based Indexed, Abstracted, and Full-Text Resources" that could be used as a basis for data collection on electronic resources. The D-Lib Working Group on Digital Library Metrics is aimed at developing a consensus on an appropriate set of metrics to evaluate and compare the effectiveness of digital libraries and component technologies in a distributed environment.

This topic would also lend itself to studies similar to the Interlibrary Loan Study in which several institutions agree to collect data in-depth for subsequent analysis that could lead to performance data.