The nature of research library collections has changed dramatically during the last decade. Traditionally, research libraries were measured based on the size of their print collections. Accordingly, the Association of Research Libraries (ARL) used “comparability of size” as one of its three membership criteria related to university library members. Moreover, ARL based its “similarity of size” statistical requirement on five categories that were identified as the characteristics that ARL members hold most in common. These five categories (number of volumes held, number of volumes added, number of current serials received, total expenditures, and number of staff) were confirmed as the most appropriate measures of similarity as recently as 1993 through a factor analysis of the 22 categories of data that ARL collected annually.

Insofar as three of the five categories are collections-related, changes in the nature of research library collections during the last decade have had a significant impact on ARL’s “similarity of size” measure. ARL responded by accommodating in the traditional counts the emerging electronic resources, e-journals, and e-books. A number of developments subsequently have rendered the traditional size of collections measurement increasingly problematic, especially as data on print and electronic collections are combined for reporting to the ARL Statistics. This caused additional problems and the authors of *ARL Statistics, 2004-2005*, reported that:

…in every year of the last decade electronic materials expenditures have grown sharply, anywhere between three and ten times faster than materials expenditures have. The average ARL university library now spends more than 37% of its materials budget on electronic materials and fifteen ARL Libraries report that they spent more than 50% of their materials budget on electronic materials.

ARL’s traditional reliance on the comparability of its members’ collections size has also been eroded by relatively recent developments like: a shift by many ARL members from a collections ownership to an information access model; the growing availability of content available freely on the web and through open access to scholarly publications; access to electronic resources among ARL members due to consortial, state or provincial purchases; cooperative collection development; the emergence of shared storage facilities that reduce its participants’ volume counts through the elimination of duplicate holdings; and large reported increases in the number of current serial subscriptions received by members due to the same journal being received through overlapping subscriptions as a result of electronic journal bundling practices of publishers and aggregators.
**Chronology**

The ARL Task Force on New Ways of Measuring Collections was established in December, 2004 and charged with identifying relevant issues and proposing changes in how ARL should be measuring research library collections.

The work of the Task Force was complicated by ARL’s use of three collections-related measures to construct its “membership index.” Task Force members quickly learned that recommending changes in definitions or collections counts to address some or all of the recent developments identified above might have significant and varying impacts for members on ARL’s “similarity of size” measures. This was problematic as long as the current “membership index” continued to be calculated and published annually in the *Chronicle of Higher Education*.

During a two month period in early calendar year 2005, Task Force members interviewed more than 100 ARL directors and identified the following issues, which were presented to the ARL membership at its business meeting on May 27, 2005:

- ARL needs to present the research library “story” more fully, including its relevance to teaching, learning, and research. Directors suggested repeatedly that ARL should place more emphasis on its members’ unique collections and strong service components.
- While acknowledging the historical value of the ARL statistics and their usefulness in demonstrating accountability and establishing comparisons with peer institutions, the majority of ARL library directors cited the Membership Criteria Index published annually in the *Chronicle of Higher Education* as misunderstood, misleading, and unhelpful.
- Many ARL directors would like to more effectively describe the benefits research libraries provide to the research community and specifically the ways in which ARL libraries’ collections and services contribute to the success of their users.

The Task Force presented a set of four recommendations to the ARL Board of Directors at its meeting just prior to the October, 2005 ARL Membership Meeting. The Board approved three of the recommendations, as follows:

- Undertake an exploratory factor analysis to determine if the five categories constituting ARL’s “similarity of size” measure are still relevant and develop alternative models for measuring the quantitative similarity among ARL libraries.
- Develop a profile of the characteristics of a contemporary research library that would complement other measures of library collections.
- Determine /develop new meaningful measures to support the profile of a research library including the provision of resources and services, assessment measures, and demonstrated library contributions to research, teaching, and learning outcomes.
A fourth recommendation regarding publication of the ARL Criteria Membership Index in the Chronicle of Higher Education was not approved as Board members expected the work of the Task Force to resolve the collections measures quickly. [See ARL Board minutes of October 2005].

In February, 2006 the ARL Board of Directors approved the engagement of Bruce Thompson to perform the exploratory factor analysis and Yvonna Lincoln to develop a profile of the characteristics of a contemporary research library that would complement more traditional measures of research library collections. Their final reports were delivered and presented to the ARL membership at its October, 2006 membership meeting.

The consultants’ reports have a number of important findings that were discussed during the Task Force meeting that was held in Chicago on October 2, 2006 and during the ARL Statistics and Assessment Committee meeting on October 18, 2006. The reports were also made available to member directors and feedback was solicited. In terms of the historical descriptive quantitative data in the current ARL Statistics, the analysis by Bruce Thompson affirms that while the ARL membership criteria index remains a valid measure of commonality among members, it is limited by its reliance on the collections data currently at hand. Further exploratory analysis identified other equally viable indices including: (a) a three factor ‘collections/services’ index and (b) an expenditure-focused index. The report provided by Yvonna Lincoln has a list of characteristics that can populate the qualitative profile for describing research libraries in the future. Key among these qualitative characteristics are three domains that are also represented in the three factor ‘collections/services’ index identified by Thompson and extended with the qualitative data: holdings (in addition to staff and collections includes important locally created digital collections); user interactions including library collaborations with faculty, and collaborations (e.g., borrowing and lending activity as well as cooperative collection development and preservation efforts).

Recommendations

Based on interviews with ARL library directors, the consultants’ reports, Task Force deliberations, and feedback from the ARL Board of Directors and individual ARL library directors during the last two years, the Task Force recommends that ARL take the following actions with respect to measuring collections:

1. The ARL Statistics and Assessment Committee should revise some of the definitions of ARL’s collections-related data categories in the ARL Statistics to reflect changes in the information environment. These changes should take effect as early as 2006-2007 if possible. The most important revision needed is a shift from reporting “the total number of serials subscriptions, not titles” to reporting “the total number of unique serials titles received.”
2. The ARL Statistics and Assessment Committee should revise some of the definitions of ARL’s collections-related data categories in the *ARL Supplementary Statistics* to account for problems reported by members, including: changing the “number of electronic journals purchased” to the “number of unique (i.e., de-duplicated) electronic serials titles received” and modifying “Volumes Held Collectively” to include not only volumes withdrawn from the local collection, but also those volumes for which the cost was shared at the time of purchase. Usage statistics for electronic resources are also a critical area where currently only partial solutions are available and close monitoring of developments should take place.

3. Particularly for its annual report to the *Chronicle of Higher Education*, ARL should replace the ARL Membership Criteria Index with an “Expenditure-Focused Alternative Statistic” such as total library expenditures, total staff without students, professional staff salaries and wages, and total library materials expenditures. The ARL Statistics and Assessment Committee also supported this direction at its October, 2006 committee meeting.

4. ARL should continue to experiment with a variety of measures, including usage data, strength of collections (including unique and special collections) and service quality measures. There was considerable support among Task Force members for a membership index that included three domains: holdings; user interactions, and collaborations (e.g., borrowing and lending activity). The implications of the alternative indices as proposed by Bruce Thompson should be considered by the ARL Membership Committee when they are revising ARL’s Principles of Membership.

5. Collect qualitative data from ARL members in the form of a two page membership profile that demonstrates their library’s contributions to its parent institution and to the distributed North American collection of research resources. This profile, based primarily on ARL's Principles of Membership, should initially consist of:

   a. services to the library and scholarly community, including the availability of electronic resources, and the creation of bibliographic records and their availability on a major bibliographic network;

   b. the library's distinctive research-oriented collections and resources of national significance in a variety of media;

   c. the nature of use made of the collections and services by faculty, students, and visiting scholars;

   d. the preservation of research resources;
e. the leadership and external contributions of the staff to the profession;

f. the effective and innovative use of technology;

g. consortial memberships (including cooperative collection development and preservation efforts);

h. important locally created digital collections; and

i. library collaborations with faculty.

The implications of alternative qualitative characteristics as proposed by Yvonna Lincoln should be considered by the ARL Membership Committee when they are revising ARL’s Principles of Membership.

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