RESEARCH LIBRARIES AS

KNOWLEDGE PRODUCERS:

A SHIFTING CONTEXT FOR POLICY AND FUNDING

Final Technical Report to the Task Force on New Ways
Of Measuring Collections, Association of Research Libraries

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In May, 2006, the co-principal investigators were funded by the Association for Research Libraries to collect data on member perspectives and constructions on research libraries of the future, and metrics which they would find useful for assessing the libraries they have become and the tasks they are undertaking for the future.

Methodology

The co-PIs undertook a series of focus group interviews and face-to-face individual interviews to capture the perspectives of ARL deans and directors. Virtually every dean and director was either a member of one of the focus groups, or agreed to an individual interview. Six focus groups were conducted over the course of the Ottawa, Canada membership meetings, and two focus groups were conducted at the American Library Association meeting in New Orleans in July. In addition, trips were made by Lincoln and Lechuga and an additional six interviews were conducted.

Interview and focus group tapes were transcribed into written documents, which were then subjected to a formal content analysis (see Holsti, *Content analysis for the social sciences and humanities,* 1969; Krippendorf, *Content analysis,* 1980; and Prior, *Using documents in social research,* 2003). Units of data were identified, and categories with unique properties established. It is on those categories—which represent the general categories being currently utilized by the deans and directors—that this report is constructed.

Rigor in the category development was established in two ways. First, categories were examined for quantitative saturation; that is, categories assumed importance first for the number of data units which migrated to that category. The more extensive the categories, the greater its assumed importance. Second, categories assumed importance because respondents signaled verbally their importance. Categories might have fewer data units, but have respondents indicate that while they hadn't thought a category through, they nevertheless knew that it would be important in the future. Half the data were analyzed by Lincoln and half by Lechuga, and then categories were either agreed upon, negotiated, or renamed. This is the standard method of establishing inter-coder reliability of category construction. A high degree of inter-coder reliability was established from the first negotiation, likely because of agreement on the final interview protocol.

The Library of the Future

All interviewees and respondents were quick to point out that any changes which are contemplated in the ARL criteria must take account of a dramatically changed and rapidly changing context in research universities around North America. Such changes include ever more diverse faculty and student bodies (see, for instance, Finkelstein, Seal and Schuster, *The New Academic Generation: A Profession In Transition,* 1998, and Schuster, "Reconfiguring the professoriate," 1998), the globalization and internationalization of university missions and outreach, the ability to deliver quality content to faculty and student desktops, and the shift from text- and print-based

collections to digitized collections, as well as rapidly emerging copyright and intellectual property issues, the involvement of libraries in producing print-on-demand, contractual and organizational issues around shared storage and non-duplication of resources, and the necessity for reorganizing and/or creating new physical workspaces for new forms of work being demanded of students and faculty alike. Other, more subtle changes are nevertheless being felt profoundly within the ARL member libraries.

This report is organized into three major sections, Characteristics of the Library of the Future, Critical New Metrics, and Recommendations Emerging from the Research.

The Context for an Emerging Research Library

Virtually all of the respondents spoke of the library of the future as being more "agile". One respondent noted that there will need to be a "higher level of agility in collections" and went on to say that this means not only agility in "fiscal resources, but creativity and care" in acquiring new materials, especially unique collections. Various respondents commented on these same theme, indicating that this new agility not only refers to maintenance of agility of resources, but also of agility in acquiring new materials, and enhanced creativity in what is chosen to be acquired. Decisions about what to acquire will depend largely on what resource sharing arrangements are created, what duplications will be avoided, and what acquisitions enhance the uniqueness of any given library. One respondent observed that ARL libraries must be poised to "take advantage of opportunities when they see them, and that this means that they must have greater flexibility in fiscal resources." One implication of this finding--a response indicated by nearly one-quarter of respondents--is that the standard five-year "strategic plan" for acquisitions and renovations still has utility, but perhaps more limited utility than in the past.

Most of the respondents answered our question regarding changes in the past 10 years with the commentary that the most dramatic changes have not been in the last ten years, but rather in the last five. Further, they observed, they were unwilling to make predictions regarding 20 years from now, when they believed that extremely powerful and organizationally-reshaping forces are at work now, and that even five years from now was virtually impossible to predict.

Libraries of the future will also need to be more proactive, particularly in developing potential new services, in incorporating new technologies for the library, and in campuswide policy development for new resources. One of our interviewees noted that this subcategory of change was what he called "instruction, technology and policy". New services will come in the form of new relationships with research and teaching personnel, with designing new forms of updated technologies for these same groups and for students also, and from a policy perspective, new policies must be constantly under development and/or refurbishing, most certainly around services provided and technologies incorporated.

Many of the ARL libraries will find that it is to their advantage to engage in external

fundraising, particularly to enhance the library's ability to take advantage of emerging opportunities, especially those which cost $1M upward (extremely expensive collections which become available). Many of the larger and more extensive libraries have already "acquired" an external development individual, a person who does nothing for develop contacts and sources for major gifts, donations and acquisitions. In the past, libraries have been less active in developing external donors, and have acquired many of the unique objects and manuscripts from donors who had personal interests in the library, who wanted to make their private collections available to scholars and students, or who believed a library might be an excellent repository for décorative or historical collections which they themselves had assembled. It was in this manner that many of the ARL member libraries came to possess valuable artwork, artifacts, manuscripts, documents, décorative objects, coins, autobiographical and archival letters and other materials, much of which is not now catalogued, and thus is not available for researchers' use.

(Cataloguing, we might add, is an ongoing concern for deans and directors. There is never enough cataloguing staff, and our interviewees routinely mentioned the paucity of expert cataloguers to be hired. One dean observed that cataloguing was "the most boring job in the library," with the consequence that new cataloguers are not being turned out of the library science programs around North America. "Most of the best cataloguers," this dean observed, "are now in their 50's and 60's." The implication is that this is both a critical need, and that those who do it best will soon be retired. This is a staffing need to which some attention must be paid, although it is not critical for the development of new metrics.)

The libraries of the future will see a shift in the skills of staff to be hired, including seeking out librarians who are able to work with academic departments, both in curriculum development, materials development for teaching, and then learning assessment, but also in grant and contract preparation. These services have always been available, but are now viewed as even more critical, since some grants, particularly in the hard sciences, are more rigorously competitive, but have higher payoff, and require highly technical knowledge management skills. Consequently, there is likely to be more call for such services in the near and far future, and libraries' roles in these activities is likely to be more visible, more active, and more proactive. Making the faculty aware of these services, however, will require more savvy marketing and "branding" of the new library; such marketing will make faculty and students, as well as a broader, extra-university community, aware of the services the new library can and will be providing.

Staffing for such services will become a critical activity for research libraries. Actively seeking out individuals trained to work across disciplines and with entire departments rather than with individual scholars will require a new kind of person: extroverted, comfortable at working in teams, accustomed to suggesting new streams of knowledge (rather than waiting for researchers to nominate their own interests), and skilled at managing and creating meta-data for the new knowledge being generated. The old images of research and reference librarians will give way to an image of the librarian as the key individual in accessing new streams of information and data as well as creating new data "trees" to account for transdisciplinary knowledge being generated.

The library of the future will also need to have its own data collection and management personnel, individuals who constantly collect, analyze and prepare reports on data regarding what services are being used, which portions of the collection are getting the highest usage, what materials are being lent through interlibrary loan, and who patrons are. This will be extremely critical for those campuses where administrators are concerned about undergraduate learning, about undergraduate involvement in research, and about the quality of undergraduate teaching and learning. The shift from a teaching-centered vision of universities toward a learning-centered campus has brought new emphases to what is called, on various campus, "the undergraduate experience," "quality undergraduate teaching," and/or undergraduate involvement with the processes of inquiry. Two issues have been identified as important here: the first is actual undergraduate usage of the library and its resources (including digital resources and desktop delivery, as well as use of a variety of search engines), and the second will be the extent to which teaching faculty draw upon libraries in the design of coursework, in the assembly of strong and sometimes rare materials, and in the design of assessments to measure student learning and mastery of concepts. One focus group respondent captured the latter issue this way:

> What is really central is *discovery*, and our role is shifting to one where we need to understand that what our public wants from us is a really high level of effective discovery that leads to *powerful linking*. (FG1Ottawa.5YSL)

The emerging research library will be the intellectual center of campus, both for student work which is occurring in new formats and new arrangements, but also for the broader goals of "information supplying" which contributes to faculty productivity and faculty competitiveness in funding arenas.

Critical New Metrics

We asked deans and directors what they would include if they were to design their own assessment criteria for ARL, and they had several important suggestions to make. These same suggestions came up in other contexts, and so should be considered a part of a larger qualitative mosaic, from which critical elements might be derived.

First, respondents concurred that they will need to enter into more consortial arrangements than they have in the past, when libraries saw themselves as highly autonomous entities. Doing so will require shifts in thinking, especially about control, ownership, and the new meaning of collection. Another critical aspect, however, of any kind of consortial or resource sharing relationship will be *to develop means for measuring the value of a consortial arrangement.* Directors want to know that as they enter into such arrangements, both their collections and their cooperative arrangements will be acknowledged and weighed positively. Several directors suggested that ARL provide *narrative space which directors might utilize to describe their arrangements,* and that it might be possible even for ARL to suggest areas of focus, as a means of gaining

more thorough and accurate data. Few believed that ARL, or the membership, is ready yet to evaluate the meaning(s) of consortial arrangements, or to understand their contribution to what one dean termed "the collective good, " the "public good," and the "role of stewardship in the great research libraries" (FG4Ott.YSL24). But some means of tracking the entry of ARL institutions into such arrangements, and a means for understanding the range of such arrangements--probably narrative--is thought to be crucial in the coming years.

One respondent mentioned the manner in which consortial arrangements are handled in the Canadian colleges and universities. She observed that Canadian universities are rewarded fiscally by the federal government to the extent that they create and enter into rich and productive consortial relationships of a variety of sorts (FG3.Ott.YSL14). We have not triangulated this assertion, but have no reason to believe that it, or some version of it, is not accurate. The U.S. system enjoys no oversight from a national-level "ministry of education", and the relegation of education to the 50 states has created a patchwork of colleges, universities, state systems of higher education, regional campuses, community colleges, and technical institutes. It is unlikely that any body or organization could specify what a "sound" or "thick collaboration" might look like--although extending the possibilities for narrative description would greatly enhance the sophistication with which member institutions discuss such arrangements.

Respondents also noted that ARL might be helpful to them in creating some categories for other kinds of activities which are emerging among ARL members, such as librarians helping to design specific courses and curricula, librarians helping to prepare grants and contracts, librarians working with principal investigators to create information and knowledge management systems as data are generated, and the like. These categories are widely agreed to be on their way to becoming significant service arenas in the near future. Most, if not all, of the member institutions deliver some, if not all, of these services on a regular basis. While they have always done so, the extent to which these service arenas will expand is agreed upon by a large proportion of both focus group respondents and individual interviewees. The external press for documenting the libraries' contributions to quality teaching, to student outcomes (particularly student retention and student learning), to research productivity, to bringing into their catalogues previously uncatalogued collections, to digitization--all will become critical aspects of service provision immediately and in the foreseeable future. Metrics such as work with departments, librarian assistance in designing specific courses and curricula, librarian assembly of high-quality primary sources for teaching and student work, librarians' design of appropriate learning outcomes assessments for library-assisted course development--all could be tracked, as a preliminary procedure, via a narrative, descriptive process until more is understood about how to incorporate them as metrics into theARL annual reports and site visit evaluations.

If the respondents designed their own assessment systems (and several already have), they would ask what is and what is not being used (in the collections), and who is and who is not being served. Some deans and directors have research directors who engage in this kind of activity, but more libraries will need such persons. On some campuses,

very elaborate and cosmopolitan systems of data management have been developd. These systems are being deployed to track classes of users (e.g., faculty, graduate students, upperclassmen, lower classmen, visiting scholars, and the like), and to determine which sections of the collections are withstanding the most usage, the most intense usage, and the least usage. Documenting in particular the types of users permits the dean to demonstrate without equivocation that library usage among undergraduates has gone up in successive years, and that a wider range of materials is now being sought out. One director believes that such changes will speed up, rather than lessen, over the foreseeable future, and projected that

> …the libraries really have to change more rapidly than the institution because…we are simply, we are so fundamental to so much of the work that happens. And at one point, we were trying to convince the faculty and the undergraduate students that electronic information was good, and that's no longer the case. (FG1Ott.YSL5)

Facets to be Evaluated Now

Directors nominated a half dozen issues which they believed will become their futures, and which they believe are not well evaluated, if at all, using the ARL criteria.

Collections. First, they were concerned about their *collections.* Many of them described unique aspects to their collections which they believe ARL does not take account, or adequate account, of. For instance, many of these libraries hold objects not readily catalogued, but comprising items which they believe create uniqueness and value in their collections. For instance, they nominated art and decorative objects, antique coins, one-of-a-kind audio recordings, manuscripts, maps, and other kinds of important research materials. These are not adequately counted into rankings, especially since the rankings tend to rely heavily on textual and print forms, digital materials and microfilms and films. But special collections are less well recognized, and non-text forms—art and other objects—have not been traditionally acknowledged well, although they add value to collections, and draw researchers from outside their universities for research purposes.

Deans and directors are also concerned that they are not achieving adequate recognition for bringing online their uncatalogued collections. As an increasing number of resources are directed toward getting these materials catalogued and digitized, they would like to see some metric which establishes the value of their efforts to make such resources available to a wider research audience, especially since doing so has meant sometimes significant redeployment of resources and the hiring of staff with expertise in digitizing collections. Such efforts not only enhance their own holdings (and therefore, rankings), but at the same time, represent a major effort at the "stewardship function" of research libraries, creating access where none existed before, and extending the range of primary resources available to scholars from around the world. This is what one dean meant when he described that

> …one of the things the historical collections do, though, is maintain a lot of

unique materials that others can then rely on, that other institutions can rely on….It's an input measurement. But one metric that may be very valuable is the number of unique items that a particular library makes available through its community or to the community. It was hard to figure before, but now with the OCLC collection analysis tools, it's getting more possible to measure that or to determine…what your unique holds are as opposed to the University of Michigan's or others. It seems that's the stewardship role because that material, if it's unique, then the library is providing an extremely valuable service, making sure that it doesn't go away. Whether that's used this year or 20 years from now, it's still a very valuable service and has to be captured somehow.
(FG4Ott.YSL/27)

The stewardship involved in preserving materials, and in making them available digitally for as-yet unknown scholars and researchers is seen as a critical cultural role, one which is more readily performed by the ARL member institutions than virtually any other cultural institution.

Defining Consortia. Second, they said there is a need to have ARL *take the lead in defining and accounting for consortia, including shared resources, shared storage, and other cooperative arrangements.* Several deans and directors echoed the dean who quietly observed that

In our system, the role of consortia has become significantly thicker and more substantive. It's no longer just--at least in our case, you know--buying, or the interlibrary loan network. The layers of services built for the resource development and the delivery and the staff planning, the number of projects that are very collaborative…um, it's very intense. And there's almost nothing we do that isn't in some way related…to what we are doing in collaboration, except for some of, you know, the direct, in-person reference. But the layering of consortia services are, really, …I think of it as "thick collaboration." It's not just kind of…"let's agree to lend to each other." I think that it's different than it used to be… (FG6Ott.YSL.1-2)

There is a need, they proposed, for understanding what a consortium is (or what consortia are), and what forms they might take; for carefully considering, under consortial arrangements, who will do what in the relationship; what delivery mechanisms will look like; who bears archival responsibility (the "most pressing" of the issues, from their perspective); and who will be buying what materials, and why. Deans and directors understand that such arrangements will give them access to what they did not have before, but they are leery of such arrangements until they have some guidance about how the arrangements are put together, how responsibilities within the consortium are shared, where responsibility lies for various tasks and activities, and how fiscal arrangements will be organized. Fiscal arrangements are an especially sensitive arena. One director reported that:

There is a significant misperception among our faculty that consortia resources are free and that somehow those come from somewhere else and not out of my budget. So when we talk about all the stresses on our budget related to the rising cost of information, we'll talk about a certain, very well known, expensive data base. And they'll say, "But doesn't that come from, you know, teleporting into the library?" Well, yes, it does, but we are still the ones who pay for it.

ARL might take the lead in helping their members to define a range of such cooperative agreements, as well as exploring the value-added to each institution who collaborates in such arrangements. Once again, brief narrative descriptions which become a part of the annual report and on-site visit reports might prove useful in ultimately limning a range of such cooperative agreements.

Administrative and Budgetary Efficiencies. Third, categories might need to be developed to measure *administrative efficiency in library operations and services rendered and being developed.* As budgets tighten, in particular, and as staff are hired who work differently from librarians of a decade ago, administrative work will have to become more efficient and cost effective. Respondents were interested in how these organizational realignments would be counted and weighed in the ARL rankings.

Student Outcomes/Student Learning/Graduate Success. Fourth, when deans and directors are asked at all about justifying their budgets, they are rarely asked about the ARL rankings. Rather, they are being asked new kinds of questions, questions for which they have never had to provide data in the past, and for which they have few answers in the present. For instance, they are being asked about *the relationship of the library and its collections to undergraduate success.* This includes any evidence libraries can marshal regarding their contributions to extending diversity on campus (perhaps a collections issue), contributions to retention of undergraduates, and to learning outcomes. Their contributions to learning outcomes might ultimately be the most readily measured, especially as librarians begin to contribute to curricular design, to materials location and preparation, and then to assessing appropriate learning outcomes within the design and materials planning stages. Other relationships will be somewhat more difficult to link in direct, causal fashion, but ARL could pioneer a dialogue around both diversity and undergraduate retention.

Libraries are also being asked to document their *relationship to graduate success.* Some deans and directors, however, are troubled or frustrated by this category, simply because little information is being collected regarding where graduates are hired, what they believe they take with them to jobs, and what kinds of placements especially are taken up by graduate students and doctoral graduates. Without any systematic information, there is little understanding of how libraries contribute to the success of students. Whatever information is gathered, however, it is likely that some of the most valuable will be in the form of qualitative data gathered from a sample of undergraduate and graduate student graduates who have entered the world of work. At present, however, there is no one who appears to be collecting such data, even on an a-periodic basis. In the absence of any

systematic data, broadsides criticizing higher education for its failure to prepare students for the world of work, or for the future, will continue to proliferate (see, for instance, Kolodny's *Failing the Future,* 1992; Readings' *The University in Ruins,* 1996; and Harry R. Lewis's *Excellence without a soul: How a great university forgot education,* 2006, as well as the earlier screeds by Dinesh D'Souza [*Illiberal Education*], and Allen Bloom's *The Closing of the American Mind.* As well, the new Spellings Report, just out at the end of September, outlines an ambitious new plan for addressing higher education's "many failures.")

Contributions to Faculty Productivity.   Fifth, deans and directors feel under some pressure to demonstrate *how they contribute to faculty productivity.* These contributions come in two forms. In the first, libraries need and want to be of more help in the research and proposal preparation arena. As the competition for grants and contracts becomes fiercer, librarians sense they can be of great service to individuals and teams of researchers, especially with data and literature searches, and with some aspects of proposal preparation. Post-award, an extremely useful service which could be provided is in the data and information management activities which go on during the life of the project. One individual interviewed observed that a member of the library staff had collaborated with a team of researchers in this kind of activity for a very large grant, and the library's share for conducting ongoing work as a part of the research team in data and information management was $15M. This kind of service—and this kind of fiscal reward for the library's ongoing services to the project—are projected to be a part of the "agility" of the library of the future, and point to new forms of service not yet recognized in the ARL criteria, but which will need recognition in the future.

A second way in which libraries are moving services out into the academic departments proactively to enhance faculty productivity is by connecting librarians to faculty and departments for the purposes of curricular design, materials identification and preparation, and design of appropriate learning assessments for individual courses. One respondent termed this the "out of building experience" (FG6.Ott.YSL3). Many of those interviewed believed that fewer and fewer staff will actually be in the library, and more of them will be attached to academic departments for just such purposes: research and curricular design and assessment. These two activities account for the need to hire librarians with different skill sets than those needed a decade ago. They also point to newer forms of service being designed and proposed far beyond those provided a decade ago. Even when not attached to departments in their specialty areas, librarians are rarely tied to their desks anymore. Several deans and directors spoke of having their librarians "walk around the library, seeking out individuals who appear to be puzzled, and volunteering to be of service." One director reported that this emerging model was "highly successful" in matching up librarians with individuals who need their help at a specific moment in time.

Social Frameworks/Intellectual Networks. Sixth, libraries will be more deeply engaged in *creating social frameworks and effecting intellectual networks in ways they have never undertaken previously.* As one interviewee put it, libraries will cease thinking

solely of "library as place" and begin to think in terms of "place as library." Another dean/director framed his image of the new library in this manner:

> …we are almost the Switzerland of the academic world. We are a neutral agency. We are a domain agnostic. (FG7NO.VL/3)

On the one hand, libraries will begin to be, especially with renovations underway or being planned, spaces where group work for students increasingly takes place. Cooperative learning projects will find their homes, and their workplaces, in the libraries now being renovated or designed. Flexible space is planned in many libraries and extensions, with such space often being created by the removal of text and print copies to nearby annexes, and with desktop delivery enabled for groups wherever they find a place to work.

On the other hand, libraries will also function as intellectual centers, where faculty who have similar or related interests, but who do not know about each other's research, are brought together so that exploration of mutual interests can occur. One director commented that

> I am always amazed when you go out with faculty and they introduce themselves to each other. I say, "You don't know each other yet?" It feels like we have those relationships with people [those facilitative relationships]. (FG7NO.VL/3)

Another, in the same focus group, proffered that

> We have those [collaborative] skills. We know how it works, and we know that our campuses are finally looking [to us] and saying, "We can deploy some of those skills here…"   (FG7NO.VL3)

Yet another chimed in:

> We are trans-disciplinary. Universities are looking for the environments where this can be accelerated and facilitated. (FG7NO.VL/2-3)

 In this way, intellectual networks will be fostered and enhanced. Libraries will become intellectual brokers, bringing together individuals so that conversations can be facilitated and new research and inquiry networks built and nourished. Such relationships often happened by chance in the past; in the future, librarians will identify potential research collaborators and bring them together. Much of this kind of work can be fostered by "social tagging," the process of identifying and delivering specific research weekly to researchers' desktops after they have identified a personalized list of research topics, descriptors and thesaurus-like terms that specify their particular research interests.

In these last ways, in particular, libraries can begin to carve out specific emerging services that demonstrate firmly how they fit into the intellectual community, how they contribute to faculty research and teaching productivity, and how they contribute to the

ongoing processes of internationalization and globalization of knowledge and university outreach. As one focus group respondent pointed out, libraries existed long before universities came into existence, and regaining their stature as the "intellectual centers" of the campus community is once again becoming a reality. Deans and directors both pointed out how faculty and administration alike see their libraries as nexuses, as the interconnective force binding the multiple missions of the campus *habitus* together. Directors point to new requests, with few or no new staff resources to meet those needs, but there is an underlying current of excitement at the interesting and vital tasks which the new library, and the new librarian, are called upon to perform.

Generating New Knowledge.   By far, one of the most powerful tasks now being undertaken by the great research libraries is the generation of new knowledge. Libraries have, for thousands of years, been in the business of collecting, preserving, archiving, and organizing the knowledge generated by others. For the first time in history, however, libraries are now engaging in knowledge production themselves. This is occurring in two ways. First, librarians are aiding and abetting the "navigation" of increasingly complex bodies of knowledge and systems of meta-data. What they are doing, however, is less about the complex process of navigation, then something far more cognitively intricate and manifold. As one respondent described it

> …our role isn't about access, it's about *making sense, making sense of the universe.* And, and how you move from a paradigm of access to sense-making, I think, is one of the biggest challenges. And that sense-making is always in context. You know, if I'm trying to find a very specific thing or I'm trying to explore something, I need to understand the universe I'm working in. I need to bound the universe I'm working in….
> From your field, the sense-making literature is something that…it's not a lot of linearity or a well-articulated process. And you almost have to be of the community to make sense of it for them.

Thus, librarians help to create new structures for understanding and linking knowledge in ways that scholars can use, organize and integrate that knowledge. In some instances, this is an exploratory process for both parties, librarian and scientist. In some instances, it is the actual creation of previously unseen linkages, linkages perhaps not even envisioned by those devising the meta-data systems.

The second way in which librarians and libraries are now engaged in the generation of new knowledge is via the creation of knowledge "trees" and meta-data organizational systems for the knowledge being generated by the scholars on their own campuses. Librarians have always engaged in organizing knowledge. What they have not done, however, in the past has been to create such knowledge digitally, prepare the meta-data for this knowledge, and then begin to initiate the process of linking these meta-data with other meta-data. In this capacity, librarians are often full members of research teams, working at structuring, organizing and ordering data being generated on large research projects. This may be the first time in history that librarians slip from the conservation role and into the generative/creative role.

Creating the Collective Good with Reusable Assets.   [4.20-21] Several of our respondents mentioned the larger purposes of libraries, of which their own was a part, and that was the library's role in creating "the collective good" or what was also termed, in another focus group, "the public good" (FG4Ott.YSL/20-21).   Deans and directors are extremely aware that the entity they administer is something far larger than merely a unit like all others in a vast university system. They are keenly aware that they are managing something which is part of a vast national cultural reservoir, and consequently, they are making a contribution which extends far beyond the boundaries of their own institutions, or even their own states, or their own country. Some see themselves as managing the "legacy" of an entire civilization, the "historical record of a culture" (FG4Ott.YSL/22). Thus, they feel that their libraries are making no small contributions to a national agenda, to some ineffable project far larger than themselves. Our respondents were less than clear about how this should be recognized or evaluated, but felt that it was important that their contributions to this national heritage should be noted or taken account of.

They were also quick to point out that, unlike consuming other goods and services, libraries provide an almost endless font of "reusable assets…or goods" (FG4Ott.YSL20-21). I use a book, or a journal article, but the "asset" remains intact for a second, third, or infinite number of users. Further, by producing new knowledge, new understandings, or extended interpretations of these reusable assets, I may even extend the original value of the asset far beyond what its original contributor might have predicted or expected. The assets are consequently multiplied and extended over an ever-widening range of audiences and users.

Discussion of Findings and Categories

Several observations can be made regarding what the two focus group leaders/interviewers discovered. First of all, the respondents are not averse to altering the current metrics, but would prefer to keep those metrics intact, and simply extend them. They are quite loathe to let go of such an extensive data base as the current reporting system provides, and they are likely correct that to preserve this system for the present is a sound idea. Certainly the rapidly shifting context for research libraries, and the emerging technological changes, as well as the expanding roles--e.g., on-demand publishing--suggest an environment where flux and transformation (see Morgan, *Images of organization, 2nd ed.,* 1997) moreso than stability characterize not only libraries, but also the entire social ecology of higher education.

Second, it would be fair to say that while deans and directors appear to be open to thinking about new ways of measuring the value added of new roles, new responsibilities and new audiences for their collections and services, they are not certain that anyone is quite ready to determine what the "metrics" should be. Until they have more data, it is clear that no one--including the investigators--is ready to turn these metrics, or activities to be measured, into any short-form, quantitative measurement. The respondents seem to feel at ease with the idea of providing space on their annual reports for *description* and

narrative that give them the opportunity to describe a variety of activities not currently recorded by ARL. A reasonable mix of quantitative and qualitative data seems to be the most useful at this point in time.

In a preliminary report to the Task Force on Measurement and Assessment, Task Force members were quite open to the possibility that qualitative data would be collected for some period of time (3-5 years), then aggregated and content analyzed to examine whether there are some common denominators which might contribute to the creation of commonly understood metrics. The data might be analyzed every two years (to avoid having the task become overwhelming), and aggregated after five or so years, with recommendations to the Board about whether, or how, the qualitative data can be turned into organization-wide understandings of the boundaries and/or programmatic or institutional limits on the meaning(s) of the metric. Primarily, the respondents know that they are doing things and engaging in activities that libraries and librarians have never done before. To be able to demonstrate these new activities and services operated by ARL's members, however, they want and need to begin such a dialogue with *narratives, that is, with good descriptive data* before such criteria can be turned into anything which might be measurable. This insight leads, in turn, to Recommendation #3 below.

Third, the respondents we interviewed were asked to nominate arenas or activities where they believed they faced new imperatives on which the Association did not adequately represent their contributions to either their own intellectual communities, or to differential placements in the annual rankings (about which many of them feel quite ambivalent). They were, however, quite realistic about where they felt ARL might collect some sound information, and where they believed no firm data might be had as yet. Those services, preservation and digitization efforts, and collection issues which they felt might be most amenable to metric development included:

- evidence of flexibility, "agility," and "fluidity" of resources
- evidence of engagement with external development and fundraising efforts, especially in order to enhance flexibility of fiscal resources
- shifts in staff skills in hiring and professional development
- the addition of data collection, analysis and management personnel, who can demonstrate conclusively who is using the library and what resources are being utilized
- evidence of connections with teaching faculty to design coursework, identify new materials (particularly primary resources), and design of assessments of student learning targeted to the new materials and teaching forms
- evidence of consortial arrangements
- unique collections, and artifacts, artwork, décorative objects, and other materials not normally classified as part of the overall collections. "Uniqueness" of holdings is, they felt, likely to become more, not less, important in the future, and so metrics which take account of non-text and non-digital "objects" should be included.
- the attention to bringing online previously uncatalogued historical holdings, documents and other "hidden collections"
- innovative administrative and budgetary efficiencies

- some contributions to faculty productivity
- the creation of social frameworks and various intellectual networks, however that is accomplished, and
- space reallocations and redesign which create new forms of working space for new forms of both student and faculty work.

Metrics which they did not feel were, or could be yet, captured well, if at all, even with narrative description included:

- creating the collective, "public" good while preserving and reusing assets
- generating new knowledge
- aiding and abetting diversification of the student body
- demonstrating the library's contributions to student outcomes, student learning, and/or graduate success. Although no one said so directly, the deans and directors intuitively know that this is a causal chain which is extremely fragile and tenuous, and they have too little data to even begin to hazard a guess here.

Recommendations

The recommendations below constitute a first pass at what ARL might wish to consider. Other recommendations one might expect to come from the membership itself, as they read and consider the report, and determine how the various categories and findings relate to their own institutions. These recommendations are offered more in an effort to prompt a much larger and more extensive and inclusive dialogue among member institutions.

1.   ARL might consider charging a committee with exploring possible varieties of consortial arrangements, including utilizing their Canadian members, since Canada's research libraries are already involved in multiple consortial arrangements which suit different purposes for the individual libraries.

2.   Within any discussion of consortia, ARL will have to consider another set of issues, viz., that consortia may be fiscally and/or administratively efficient, but may not necessarily be either intellectually or delivery efficient. Several individuals warned that consortia could not function well if they were solely about money. Intellectual issues and issues of non-duplication would need to predominate as criteria for considering any consortial arrangement.

3.   As ARL considers new and emerging criteria, they might also consider a series of new temporary committees, each of which would be task-specific and subject to sunset provisions. The purpose of each of the new task forces would be to explore the possibilities for each new criterion posed, and to make specific recommendations regarding how libraries were responding to the criterion. Such task forces might have

very limited lifespans--perhaps no more than year--before reporting out to the membership in a series of small "white papers" on their recommendations.

4.   ARL might take the lead in specifying what qualitative data need to be added to the quantitative data which they now collect, especially on consortial arrangements. Concrete and efficient ways of gaining input could be suggested by members and staff alike, and the additional information could be made a part of the criteria rather swiftly.

ARL might wish, on recommendation of the Task Force, to start "small", that is, to specify a number of criteria on which they wish to work, and to hold off on others until they have held wide discussions with the membership about what the members may feel is important.