Towards World-Class Knowledge Services:
Emerging Trends in Specialized Research Libraries
Part One: The Management Perspective

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The successful modern organization is, by definition, knowledge-centric. In these organizations, the business of the enterprise takes place in an environment in which employees conduct research and make decisions and/or develop products based on the results of that research. To ensure that the organization achieves its institutional mission, the knowledge-centric organization also employs a coterie of knowledge workers: librarians, content managers, staff development specialists, archivists, records managers, information technology professionals, and others. Their job is to work *with* information, knowledge, and learning, as professionals and on a full-time basis, to see that these critical elements that support the successful transfer of information and knowledge are well managed.

Knowledge Services is the term used to describe the management practice that provides the theoretical, intellectual, and philosophical foundation on which this success is built. In the knowledge-centric organization, Knowledge Services combines:

- information management, the organizational methodology that is concerned with the acquisition, arrangement, storage, retrieval, and use of information to produce knowledge

- knowledge management, the management practice that is used to help an enterprise manage explicit, tacit, and cultural information in order to reuse the information and, when appropriate, to create new knowledge, and

- strategic (performance-centered) learning, the successful achievement of skills, competencies, knowledge, behaviors, and/or other outcomes required for excellence in workplace performance.

In knowledge-centric organizations, it can be observed that their specialized research libraries are expected to offer services that are characterized as "world-class." What does such a characterization mean?

A world-class specialized research library is one which exists to provide a borderless service, with the library being a function (and not always necessarily a place or a physical location) where information can be sought from wherever it exists, to be used immediately by local or remote customers. When we speak of "the world-class specialized research library," we mean those libraries in organizations that offer specialized, mission-specific library services that are of the highest caliber, however library service is measured and judged in that "class" of organization. In many cases, we are speaking of a library/information center/knowledge center that embraces Knowledge Services as its own management approach for achieving its specific mission. It also offers – it almost goes without saying – an approach to Knowledge Services that meets the highest standards that the organization, its management, its library staff, and its library's users have agreed upon.

In seeking to describe the world-class specialized research library, another connotation comes to mind. In today's management milieu, information management, knowledge management, and

strategic learning are all connected to the larger, societal globalization that is affecting every aspect of all citizens' lives. It is now well established that the attention given to acknowledging and dealing with the global society – our modern international focus – affects all efforts in the workplace and provides an even stronger reason for a research organization to seek the highest levels of service delivery. In today's society, any serious research organization – whether its community is academic or commercial – must be supported by a world-class specialized research library.

Consideration must also be given to the phrase "specialized research library," and how that terminology reflects the services provided. In many organizations, the term "research library" is often used to describe specialized libraries, simply because the library exists to support research conducted in this larger parent organization, and the term "research library" as a descriptor matches the employees' understanding of that functional unit's role.

There is a contradiction, however, especially for those library managers in organizations connected with the academy. In higher education, the term "research library" has traditionally been used to describe a library that has at least one million volumes. Such a description obviously does not make sense for the many specialized libraries with fewer than one million volumes, libraries that exist to support research in their organizations. And in this day and age, that traditional distinction is practically irrelevant anyway, since so many research transactions processed through the organization's library are not related to seeing a book held by the library. The number of volumes owned by the institution and its library is not really related to the services offered by the library, and the term "research library" – in the academic sense – has become something of an artificial discriminator.

What these world-class libraries do offer, however, is very heavily service-focused support for research. For them, the best model for the successful delivery of Knowledge Services can be found in the specialized library community. A specialized library is directly connected to the achievement of the larger organizational or enterprise mission and, in fact, the whole concept of "mission-critical" becomes the imperative for the very existence of the specialized library. Such a library characteristically offers service specialized or geared to the interests of the organization and to the information needs of its personnel. It exists to obtain and exploit specialized information for the private advantage of the organization which provides its financial support, and the scope of the specialized library's collection and services is determined by the objectives of the parent organization. It is thus appropriate to refer to such a service function as a *specialized research library*.

Emerging Trends. Working in a variety of settings and with a number of projects, the authors have identified emerging trends in the management of the modern, world-class specialized research library. These findings are based on interviews and research conducted in strategy planning projects, management reviews, information and knowledge management audits, learning audits, content management/collection development studies, information sharing and analysis projects, physical access and space-planning studies, and similar activities. Libraries and information/knowledge centers studied include those in commercial research and development organizations, public scientific institutions (including those managed along academic lines), journalism and editorial libraries, international financial organizations, scientific and research organizations in the defense community, professional associations and trade groups, philanthropic organizations, and organizations (sometimes referred to as "think tanks") that exist to conduct research and provide reports and documents that influence or, in some cases, aid in the implementation of policies developed for the larger societal common good.

The following general and broad-based picture can be reported:

- The modern specialized research library is understood within its organization to be managed from a holistic perspective, and its work is integrated into the larger business purpose of the parent organization.

- Cross-functional collaboration (with no disincentives for collaboration) is a critical feature of the library's operation.

- The library performs a strategic function within the organization, and that function is usually spelled out in the library's mission statement.

- The specialized research library is recognized as the central information/knowledge connection for the organization.

- The specialized research library operates in a specific environment. Only mission-specific services are provided.

- A vision of library services has been established, either formally or informally, linking information management, knowledge management, and strategic (performance-centered) learning in a Knowledge Services construct.

- Awareness building within the constituent user base is a given, as is marketing. There is no assumption that everyone who can use the specialized research library knows about it or knows and understands all the services that are available through the library.

- The service ethos in the specialized research library builds on higher value services. Queries reaching the library demand highly intensive approaches to research. There are few "simple" queries, as users generally find this type of information for themselves.

- Adding value to information services, products, and consultations is standard practice in the specialized research library.

- Customer needs are tracked on an on-going basis, as is their satisfaction with service delivery. Customer service and CRM (client relationship management) are key elements of the management picture in the specialized research library.

- New paradigms of service delivery (including the development of specific products and services by internal staff, or purchased from external vendors) are recognized as opportunities for enhancing Knowledge Services for the parent organization with which the library is affiliated.

- Advocates and users recognize the value of the library and make efforts to see that it is supported.

Research support is, of course, the primary focus of these library operations. The materials that make up the collections of these libraries are primarily for reference and research and are usually restricted to use within the parent organization. Staff members include professional librarians and other Knowledge Services professionals, including some with degrees in a subject specialty, sometimes in addition to the professional degree. There is usually access to commercial online services, and these libraries usually have an automated catalog and provide access to databases captured on CD-ROM, as well as in many cases to databases available online as well.

The services provided by these libraries are similar, although the depth of their collections and the extent of service levels will vary, of course, depending on the nature of the parent organization and, in many cases, the specific subject focus of the organization. Such activities as reference service (that is, working with and providing consultation advice to the library's users), providing

electronic desktop access to research tools (both commercial products and products developed in-house), and providing interlibrary loan/document delivery for materials not available onsite are standard services to be found in and expected by the customers of any well-managed, well-supported specialized research library. What is generally called "expert research support" is also recognized as a legitimate library service, one in which a library staff member, usually with some degree of subject strength as well as professional expertise in information management, knowledge management, and strategic learning, works with the library's customer or a group of customers in order to provide consultation or advice specifically matched to the customer's or group's requirements.

As noted in the description of Knowledge Services given earlier, learning and teaching are critical components of the library's service offerings. In practically all specialized research libraries, library staff not only share their expertise with the library's customers, they join with them to learn about subjects and issues that, for full benefit to the parent institution, they must understand mutually.

From the above, it can be seen that the well-managed specialized research library has certain established characteristics and that there are patterns in the kinds of products, services, and consultations these libraries offer. From the management perspective, these characteristics can be described as follows:

Library Services. Specialized research libraries offer a full range of library services. These include reference and consultation services (although in some instances, the "reference" terminology has been done away with, to be replaced with a "research services" approach that builds on proactive interactions between the library staff and the library's customers). Most reference queries come in via e-mail, followed by walk-in customers, with the smallest percentage of queries coming in via telephone. Customers are asking more challenging questions of the professional librarians on the staff, and users conduct their work at an intellectual level that means that they are not usually seeking "easy-answer" information (telephone numbers, addresses, short biographical data, etc.) that they can find for themselves.

In-depth literature reviews continue to be a standard service, and book purchasing and journal subscriptions continue to be valuable to the library's customers (often for both the library collection and for individual program studies and/or researchers). Many libraries are moving away from traditional collection-development methodologies, preferring to work with customers in a concept of "proactive anticipation." In some libraries, fewer books are being purchased because the emphasis has switched to document delivery and the purchase of special reports, etc.

Interlibrary loan and/or document delivery services are considered primary and essential activities in some specialized research libraries. Contracts with full-text vendors are standard, with the costs charged back to the individual projects the researcher has indicated. In some libraries, the numbers of ILL requests are dropping, since users have e-journals, e-reports, etc. and do not seem to need to make as many requests as they did in the past. Still, there is high demand for photocopies of articles and pdf files

Several libraries have arrangements for subject specialists to be assigned to specific programs or projects as the project's "insourced" internal information specialist or research liaison. In some cases, library staff participates in projects to help with setting up an information-handling or access application, but as a general rule, insourcing library employees to particular projects is done on a case-by-case basis, usually when there is a strong need in a particular situation. There are exceptions in the profit sector, however, where such insourcing is automatic, already established in the working groups and in place as each new project begins.

Many libraries are actively involved in product development, frequently with a dedicated staff member or members whose work is primarily devoted to managing the Library's IT services

(obviously in conjunction with the larger organization's IT department). The on-going development of library web pages is a common thread running through all world-class specialized research libraries, and much attention is given to providing "user friendly" desktop access to library services such as bibliographic and resource databases, as well as access to instructional and informational material. Content management looms large on the horizon for specialized research libraries

Customer Base. When asked to describe the library's primary users, most of the library managers note that the library serves the organization's own key business activity. Library clientele are very well educated, and they have high expectations for library and research services.

Some specialized research libraries are obliged – for various institutional reasons – to serve the public (usually limited to on-site research and reference services). Others offer fee-based research services to non-affiliated researchers working in fields that are the parent organization's specialty. None offers services to anyone but its own clearly defined constituent users, although (as noted) many participate in interlibrary loan/document delivery programs.

Asked if there are secondary or "fringe" users whose information needs are incorporated into the library's service delivery program, some managers describe how their services are available to all organizational staff, including such departments as human resources, finance and other information resources or knowledge management professionals. In many cases, all staff (including, as one library manager noted, "down to the security guards and facilities workers") are welcome to use the library, but the material and services provided are expected to support the organization's key business activities.

Several library managers state that they would like to offer more specific services for non-research units of the organization, but they have either not been encouraged to do so or do not feel that they and their staffs have the appropriate subject expertise. Others, though, pick up on the idea when the subject comes up, and indicate that they would start promoting the library's services more seriously to organizational units that might not normally use the library's services.

Library Management. Generally speaking, specialized research libraries function as part of such units as the Information Resources Division (in some cases headed by the CIO, in others headed by another senior manager). In some organizations, there is a high-level steering committee with oversight responsibility for a number of units that includes the library. In others, the library manager is part of the corporate communications section, since the research effort is seen as part of the organizations overall communications work. In several organizations, the library manager reports to senior management.

Library managers are actively seeking to reduce the amount of time devoted to "backstage" and "processing" activities, as opposed to direct interactions with the library's customers. Much effort is expended to move staff to working directly with the customers.

One particular challenge for library managers, with respect to the library's delivery of services, is the organization's view of library services. In many cases, this view is, as one manager put it, "fairly traditional and old fashioned." Senior (older) staff tend to view the specialized research library somewhat as a book museum, while newer staff, "who are more WWW-savvy," forget about the library completely. Such perceptions relate of course to another challenge that is frequently described, the popular misconception – and one clearly recognized as such by all serious researchers and those who work with them – that everything is available free on the web.

For many specialized research libraries, a major challenge is to become more relevant to the research process in the organization, and to maintain a viable presence in the institution. In some of the parent organizations, the library has fairly low visibility. Related to this situation is another challenge, that of the library's participation as a major player in the organization's developing

knowledge management efforts. For some reason, the expertise that professional librarians can bring to the knowledge management effort is simply not acknowledged in many organizations.

Planning as a management tool is sometimes problematic, not only finding the time to plan, but in having support to plan. In some of the libraries studied, it is seen as a challenge to get management interested in working with the library in planning for the future, and there seems to be a built-in sort of "don't-worry-about-it" attitude for library planning. On the other hand, a running theme in other libraries is that some efforts for improving services or systems are organizationally mandated. For example, in one organization, electronic record keeping throughout the enterprise was mandated by the parent organization's CEO, so library efforts are migrating as quickly as possible to an electronic format, much to the delight of some of the more forward-thinking members of the library's staff.

Finally, though, simply embracing the new is often a management issue. At one specialized research library, the management challenge is to find staff resources to do the new things "while we do the old." The "old" services must, of course, continue to be provided as long as they are bringing benefit to the organization, or are expected to be provided by organizational leadership. This situation is part of the on-going challenge for library managers to take a direct leadership effort to encourage library staff and customers to be proactive and not reactive, when thinking about library- and research-related issues.

Financial Considerations. In most cases, specialized research libraries are managed very tightly. Only one manager commented that finding necessary funding is not a problem, but the others made it clear that by managing carefully, senior managers in the organization with resource allocation authority are not inclined to "nickel-and-dime" the library's operation.

Many libraries charge back for services. Some charge back for all services, while in others, library budgets are characterized as being in two parts: overhead and cost center, usually in something like an 85%-15% ratio. Sometimes these proportions are slightly different, but a "shared" system for charging back for services is generally the rule. In these cases, basic library services are provided through general overhead. Services for which these libraries charge back include extended reference services, external document delivery and interlibrary loan, and some cataloging work.

Among the libraries that do not charge back for library services, the primary reason given was that the process is too labor intensive. In some very fortunate organizations, the research program is endowed, and library services are supported through endowment income.

Finding support for library and research services among the various programs of the organization is a problem for some libraries, particularly when program officers discover after a project is underway that there will be research costs involved, or the extent of those costs. To prevent these kinds of situations, some libraries have a staff member who sits in on all meetings as a project is being put together, in order to advise about possible research costs, about what the library can provide without charging, and about what the estimated charges would be for other research work. The goal of getting financial requirements into the program study's early planning stages eliminates "nasty" surprises later.

In some libraries, "unanticipated research costs" are not an issue because the basic checklist for the organization's project management handbook includes a line for research costs. Distributing the formulas for determining what research costs might be and educating project staff about how to apply these formulas is standard operating procedure for the organization's staff learning program.

In other organizations, a content development team is put together as a project is created, with one of the team's responsibilities being to establish the budget for the project, including research costs. A member of the library staff either works as part of the team, or advises the team.

The difficulties of operating in a period of economic downturn are a continuing theme for managers of specialized research libraries. In one organization, as financial limitations are being considered, the president of the organization (himself a great supporter of the specialized research library) has indicated that instead of suggesting that the staff "do more with less," he made it clear that the organization will be managed with a philosophy of "let's do *enough* with less." While encouraging all staff to accept this as its mantra, the library's customers' expectations have not changed, and as far as library services are concerned, customers are reluctant (or are refusing) to give up or even to cut back on library services they've become accustomed to in the past. These expectations for continued "highest" levels of service delivery are, of course, translating into frustration for the library staff and its management.

Physical Access/Space Planning. In most cases, managers of specialized research libraries are aware that space needs change as organizations change, and they expect to work with both internal facilities managers and external consultants to resolve space-planning and physical access issues.

It is now generally accepted, as space planning initiatives are undertaken in the specialized research library community, that libraries are both a place and a gateway. Libraries continue to house physical collections, and to those collections is now added a capability for access to information resources not physically located onsite. While libraries will be committed to offering this "virtual collection" of shared information resources irrespective of format or location, only a portion of its offerings will be virtual, and its physical materials will continue to be important in meeting the library's customers' needs.

Space planning for specialized libraries is generally the responsibility of either the senior library manager or, in some organizations, an ongoing task force or planning group. Generally accepted components of the space planning process are now recognized to include: an appropriate space for library staff; a variety of group and individual study spaces; comfortable, functional, and ergonomic furniture; comfortable, wired (i.e., laptop ports) study areas: quiet spaces for research, study, and collaboration; and spaces for strategic learning and training activities within the library setting.

Success indicators for physical access and space-planning have been identified by managers of specialized research libraries to be: an appropriate planning horizon prior to designing a new space; functional efficiency as a key focus (providing a layout that "works" for both library customers and library staff); adjacency factors and the relationship of the various library components and functions to one another; and careful quantification of appropriate space for new library components and services to be offered.

These are management trends that can be identified in "world-class" specialized research libraries today. The second part of this article will look at some of these trends in terms of the library's customers, and how those customers' expectations affect service delivery in the specialized libraries community.