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The Future in Context: How Librarians Can Think Like Futurists

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It is no secret that our busy schedules can keep us from seeing the forest for the trees. Often we are too much focused on present problems, and too committed to and involved with current processes, to see how we may better prepare for the future.

Librarians, like many others, face two types of pressures. The first is: “Do the same with less”. As the pressures caused by time and resource limitations grow, our tendency is to focus more and more on smaller and smaller operations, the minutiae of daily work life. We may defend this tendency by calling it “specialization”. Secondly, we are under pressure to “Do more with the same.” As we strive to perform at greater levels of productivity and efficiency, the tendency is to focus on the immediately obvious and on repetitive operations. Subtleties do not survive time limitations, and neither does our ability to think about the future and make sense of it.

In the normal course of events, something that could be called the “past push” process is operational. We “push” the familiar into the future, seeing things we now know and do as processes that will continue, perhaps indefinitely. We are prone to push current knowledge and procedures into the future, rather than to see how the future may pull something out of us. We have no mechanism to recognize the lost opportunities that are invisible in “past push” processes, and we continue to measure library performance largely against the status quo. From a societal and organizational perspective, this will have significant deleterious effects on libraries and on the library profession.

The future should be a pull and not a push. To work on a “future pull” basis, we must abandon or at least reduce our possessiveness and pride in the strengths, learning, and personal history we have with current processes and procedures. That can be very difficult to do. We have invested much of our time and talent into achieving the status quo, and our normal tendency is to let “future pull” processes happen on random occasions, by accident. We then think of these serendipitous accidents as insight or creativity.

Librarians need to adopt “future pull” thinking in order to forecast the future in a realistic way, and prepare ourselves and our libraries for it. We need to adopt some of the techniques used

by futurists to identify problems, focus thinking, and plan future directions. Following is one simple process for examining future possibilities. It is an exercise designed to encourage lateral and creative thinking, and can be carried out individually or in group brainstorming sessions.

First, choose a small set of topics or categories. Choosing a limited set of topics will help to focus thinking in defined areas without restricting possibilities. The topics will bring events, processes, trends and situations to mind. Try choosing different categories on different days, to encourage creativity. For example, one set of categories that could stimulate “future pull” thinking could include “users and services, personnel and management, and resources”. Brainstorm by projecting each of these categories into a library setting some years into the future. Another set could consist only of adjectives: “societal, economic, political, technological”. Forecast the future by considering the impact of societal, economic, political and technological change on libraries. To begin, focus entirely on desired states of development.

Additional sets of terms can be found in the appendix. The list is not meant to be definitive or exhaustive, but simply to indicate the many possible ways to make predictions and place libraries in the context of the future. Additions or deletions can be made to these sets of terms. Choose additional words, re-word what is not useful, and develop other, new sets of terms.

Some rules for inventing sets and categories are:

- Any set, no matter how bizarre, can be a fruitful source of ideas.
- Try using positive and negative terms in the same set.
- Try using nouns, verbs, adjectives and adverbs as sets themselves, or combine them to make sets.
- Try to avoid using a simple dichotomy. Add a third or fourth term to a pair, no matter if it seems unrelated, to make creative breakthroughs.
- In making lists, do not be too much concerned with compatibility of terms.

This brainstorming technique creates a process for seeing the total picture and all its cross-feeding relationships. To be sure various implications are covered, it will be necessary to spend some time investigating subcategories. For example, the subcategories of events, processes, products, services, trends, and situations could be considered in turn under each term in a set.

Some answers and forecasts may seem obvious and some may seem far-fetched; however, listing them all together helps us see that the future is not composed of individual trends but of the interplay among trends and circumstances. It is in this interplay that we discover synergies, and experience the dynamism of social, economic, political, and technological processes.

As an example of “future pull” thinking in operation, the remainder of this article illustrates the result of considering some library trends under one three-part categorization: users and services, personnel and management, and resources.

Category One: Users and Services

- Requirements for digitizing library collections and information will increase, particularly to serve remote users. In addition, there will be many users who will never set foot in a physical library. Users who are not distant will use digitized materials because of their convenience. At the same time, it is highly unlikely that libraries will become entirely virtual, or that physical libraries will no longer be needed. Such predictions result from the human tendency to see the future in extremes. Some single-function, single-mission libraries will become entirely virtual, but we can expect hybrid, multi-purpose libraries, with multiple access and dissemination processes, to be around for some time. Note that making the changes necessary to implement multiple types of services for multiple types of users will not be easy. These changes will require long-term planning and preparation.
- Aggregating mechanisms, be they physical or virtual, will become one of the prime features of libraries. Librarians, of course, have always been great aggregators. What are library classification schemes like LC and Dewey but systems designed to aggregate knowledge? Librarians will need to give more and more attention to helping users by aggregating knowledge on an idiosyncratic basis. In the future there will be more pre-packaging of information. Some packaging can be virtual, such as the subject portals that group Web resources, databases or other digital resources together in clusters by subject area or user preference. Packaging can also be physical, such as grouping common or class readings together, assembling all necessary materials for school assignments, bagging selected children's books intended for one age group, or combining relevant informational and resource materials on specific topics.
- There will be more emphasis on analysis of information rather than on simply providing access to information. As aggregation becomes a standard and expected library service, librarians will be only a short step away from becoming information consultants. To a much greater extent than is now the case, reference librarians in public and academic libraries will perform information analysis and problem-solving for users. An analogy to processed foods is germane: the present-day library is providing the equivalent of unprocessed foodstuffs, but library users are bad cooks, too rushed to cook, do not want or know how to read cookbooks, or have no access to good cookbooks or good kitchens. They prefer pre-selected, prepackaged, precooked meals. Currently, most librarians think that relevance is the most pressing issue for users. Although relevance is important, analysis is where the rubber meets the road in real life.
- Information analysis as a library service could be provided on a for-fee basis, as a pay-per-use service or set of services. Budget pressures will make a move to fee-for-service both logical and necessary, particularly in information access, collation, analysis, and processing. Librarians could use the resources of their libraries to do profitable out-sourced work for corporations in competitive intelligence and market research, for government in industrial recruitment, for academia in development prospecting, and so on. Users would pay fees to the library providing the resources, and these fees would provide contributions over and above real costs. Such opportunities will be missed if librarians and professional library associations insist

- on maintaining free service as an all-encompassing ideal, one to be applied in all circumstances. In the health care field, by contrast, a subsidized, basic level of care may be provided and anything beyond that must be covered by the benefiting individual. Similarly, librarians must adjust to the idea of offering different types of services to different types of clients at varying prices, times, and locations.
- Library collections must reflect the increasingly multilingual and multicultural nature of western society. The issue this raises is whether or not collections in various languages will be similar in content and format. Use of video or digital formats may be more appropriate than print for cultural groups that focus on oral or visual learning. There will also be need to assist users who have learning challenges and disabilities. More information and instruction will be given in digital/video format, replacing many books. "How to" instruction, for example, is particularly amenable to digital applications. Users have unique backgrounds, personalities, needs, and learning styles, and the resources available in library collections must reflect this fact.
 - New and more accurate measures of service effectiveness will be developed. Presently, librarians are missing some opportunities for real service. As we know, simply providing information does not always satisfy the needs of users. The users who suffer most are those with one-time or very occasional and specialized information needs. Too often, these people do not and would not recognize libraries and librarians as possible resources. What makes the problem so intractable is that there are no good metrics for measuring missed, unidentified opportunities. Our metrics are self-identified and measure only how well we do against self-identified standards.
 - There will be increasing emphasis on providing space in libraries for non-traditional uses: rooms for meetings and study groups, display space for local art work, local history or traveling museum exhibits, college or civic pride displays, special collections memorabilia, and the like. Academic libraries will offer more venues for social interaction, including meeting rooms for social groups and group studying, and specialized instruction facilities with advanced hardware and wireless connectivity. The library can make special technology available to users: video conferencing, group simulations/gaming, state-of-the-art presentation and performance facilities with technology to provide simultaneous multiple translation, and special responders at each seat. Sales will increasingly become the library's province, and users will purchase snacks and coffee, new and used books, university memorabilia, and local souvenirs in the library. If the library is to be a center of community learning, it must serve the whole person. Much learning is collaborative and social, but traditional library design and planning have not acknowledged that fact. In the traditional library, learning remains a private and individual process.

Category Two: Personnel and Management

- More advanced management thinking will be identified by the continual creation of new titles and departments as well as by the restructuring and re-titling of jobs and departments. The labels given to library positions say much about management's perception of their purpose, function and significance. Consider the different connotations of these titles for similar or related library positions:

librarian or information manager
knowledge worker or library clerk
data access facilitator or cataloging clerk
information coordinator or resource person
media specialist or school librarian
records manager or documentalist
data coordinator or data collator
serials check-in clerk or serials technologist
reference librarian or electronic resource librarian
analyst (the word already implies data are present) or information consultant
acquisitions librarian or digital acquisition coordinator
systems librarian or ILS workflow librarian

- It is important to keep titles fluid since people perform to the title they are given. The same goes for names of departments. Various titles are also applied to library users. We would think of users differently if we called them "customers" or "clients". Our labels say it all! In meetings, listen to the language to know when the group's hidden assumptions ought to be verbalized. Unless continually re-examined, language alone can limit perceptions, processes, creativity, opportunities, and outcomes. Watch changes in position titles over time to see how perceptions of functions change.
- Increasingly, non-librarians will be hired for specialized needs, be they in information technology, accounting, website maintenance, or outreach. Specialists with graduate degrees who are not qualified librarians will be hired for their technical or subject expertise, and will learn the library skills they need on the job. Libraries, especially multi-function libraries, are not homogeneous organizations. In the future they will recruit employees as businesses do, employing a broad cross section of functional specialists.
- There will be more emphasis on outsourcing of library functions, but the results will often prove to be disappointing. It is important not to be caught in fads in this area. It is difficult, time-consuming and expensive to re-establish outsourced functions in an institution, and few organizations that outsource begin by doing organizational recovery planning. Audit and privacy controls, legally and financially protective documentation, and accurate preliminary analysis of costs and potential benefits will be needed before library functions are outsourced. Some of the biggest problems with outsourcing have occurred when an outsourcing contractor in turn subcontracts the work. Control and responsiveness are easily lost. Note that the library may benefit from the trend toward outsourcing by itself taking over, under contract, the management and operation of smaller libraries in local corporations, professional offices, and government agencies. Both sides must be considered: outsourcing the library's own work, and being the resource for others who are outsourcing.
- Management fads must be seen for what they are. Ideas like empowerment, team structures, outsourcing, cross-training, zero-based budgeting, group process, total quality management, driver-based planning, balanced scorecards, six sigma, management by objectives, and so on, are simply attempts to view the world in a new way. There is an infinite variety of ways to do this, and it is not necessary to spend time, money, or resources on becoming expert in every new fad. A library will not be

- disadvantaged if a couple of new management techniques are missed along the way. It should not be assumed that any one of these fads is a necessary evolutionary step.
- Faculty status for academic librarians will prove difficult to sustain. Librarians in tenure-track positions may spend 20% or more of their time on faculty processes such as doing research studies and writing articles for scholarly journals, attending and presenting at library conferences, and sitting on campus and professional committees. As budgets get tighter, campus administrators will eventually conclude that this effort is not worth the expense. If the library's funding institution can save the percentage of the library's budget that currently supports the faculty status of librarians, it will do so. The focus will be on running a library effectively, not supporting individual librarians in achieving tenured status or in making themselves nationally or internationally known in their profession.
 - As government funding of universities declines to smaller and smaller percentages of total university costs, there will be splitting of campuses into for-profit and not-for-profit departments. The professional schools (business, law, and medicine) will lead the way. These will be followed by the hard sciences (physics, chemistry, biology), which will restructure themselves as outsourced R&D departments for major firms. Already some business schools of major universities have found it in their interest to sever their ties to government funding, raise tuition, and become effective competitors to the big name business schools. The academic library will bill these for-profit departments and schools for information services provided. It will, at first, be difficult to break out of the long-term mindset of serving one public. The problems will be similar to those of former monopolies like telephone and energy utilities. When their monopolies ended, these companies had to compete in a variety of markets with a portfolio of products, while their accounting systems were designed for recognition of costs only on a macro organizational level. The fastest and easiest transition will be made in libraries where service and measurement have been divided functionally and organizationally into various publics: students, faculty, and outside users. Additional analytical itemization will not be a new concept in these institutions.

Category Three: Resources

- In the medium term, commercial software will be made available for use in the library, just as books and periodicals are made available for browsing. Users will be able to sample capabilities of various programs, use full versions of programs, or use specialized software when their needs are only occasional. This last offering will be the most important. In the longer term, this service may decline in importance as more and more commercial software becomes available on a pay-per-use basis over the Internet.
- Currently the vast majority of libraries treat information as a free good for users. Although library services obviously come at a cost, users are not explicitly told the dollar value of any specific information they obtain from a library. Setting aside any questions of fee-for-service, there is no reason why the value of library information cannot be priced for users to see. All reputable economists and all private companies believe that making people aware of actual costs, even if they do not pay these costs directly, helps in better allocating resources. In an academic library, expenses could

be applied to faculty and students as a first cut. Greater specificity regarding costs of various data and overhead allocations could be introduced over time. Users would learn to make resource allocations by being made aware of how much things actually cost, overhead included. As things now stand, students go into the working world very naïve in this regard, and may squander or misapply their host organizations' resources because they do not understand their value. Costs must include prorated overhead or common costs. Few librarians roll enough of overhead costs into determining the real costs of information: its access, its maintenance, its storage, its retrieval, etc. For example, the real cost of library materials includes the purchase price plus the costs of ordering, shipping, receiving, cataloging, processing, shelving, and storage.

- There will be more digitized full-text resources in library collections, co-existing with hard copy. Both are needed, and a collection lacking either format will not serve users adequately. Certain serendipitous discoveries made through shelf and print journal browsing would be impossible through Web browsing alone. Online information delivery is very effective for distance education, but distance education must not be thought of only in terms of digital resources and the Internet. In the real world, knowledge is transmitted through discussion as much as by any other means. Simply giving information to a student, whether this is done digitally or in hard copy, does not give him or her understanding. The student may know the proper analytical techniques to apply but miss the implications of the analysis because there is no opportunity for discussion. Indeed, with much Internet usage, collaborative learning is actually precluded. It is possible to create virtual communities and discussion groups, and librarians need to give attention to such possibilities when serving distant learners. Without attention to community building, heavy Internet use can create or exacerbate antisocial tendencies in people. Librarians serving remote users can provide opportunities for distant learners to work jointly, identify problems and make decisions cooperatively, in library-hosted chat rooms and occasionally in the library facility.
- As costs of materials storage rise and storage space diminishes, resource-sharing and consortia-building will recapture the interest of librarians. There will be more dependence on resources shared across consortia, be they statewide or smaller groupings of libraries. The greatest interest and most notable cost savings will be in physical storage of historical collections, and consortial purchases of expensive packages of digital resources. Sharing will involve all categories of resources, physical, digital, and human. Libraries will share the knowledge and expertise of specialists in esoteric subjects, in order to provide highly specialized research assistance.

Summary

The above examples are heuristic and are not meant to be an exhaustive examination of future possibilities in the areas chosen. Any set of terms or categories that is chosen for examination may be expanded, but the above examples should give the reader a model for conducting similar processes. It is important to note that this thinking process can be used for either personal or organizational projections of future situations and scenarios.

The key to understanding is to verbalize assumptions, and creative breakthroughs come from rethinking hidden assumptions. Some reputedly creative individuals do no more than describe the status quo in glowing terms, convincing their hearers that they are projecting future scenarios. The more that hidden assumptions are discovered and verbalized, the freer we become, and the more creative, effective, and productive we will be. While one thinker may not agree with the projections of another, strategies and plans must be in place to deal with possibilities that may become realities.

Appendix

Sample sets of terms to stimulate “future pull” thinking in library context:

- library users, management, and staff
- time, space, speed, duration, mass
- effort, effect, affront, confront, permeate, percolate
- power, control, desire, resistance
- fight, flight, acquiescence, confounding
- dynamic, static, evanescent
- societal, economic, political, technological
- help, hinder, attack, defend, surrender
- independence, dependence, co-optation, synergy
- planning, inertia, resistance, drive
- conflict, congruence, redundancy
- clarity, confusion, powerlessness, power
- strength, weakness, opportunity, omission, commission
- empowering, denying, affirming, confusing
- combination, division, multiplication, subtraction, factorial
- individual, family, organization, society, world

- concrete, transcendent, immanent, ephemeral
- pushing, pulling, ignoring, choosing
- event-driven, people-driven, policy-driven, competition-driven, politically-driven, organizationally-driven
- action, reaction, inaction, passive, proactive
- expansion, contraction, stasis, direction
- density, opacity, compactness, incompleteness, integrated
- confinement, openness, luminosity, siphoning, avoidance
- evolutionary, devolutionary, constricting, expanding, opening
- encompassing, separating, combining, recombining, spinning off
- hope, fear, instinct, faith, emotion
- enlivening, deadening, empowering, enticing, revolting, riveting