Creating Library Services with Wow!
Staying Slightly Ahead of the Curve

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ABSTRACT
THE BENTON REPORT (BENTON FOUNDATION, 1996) IS A THOUGHT PROVOKING
study that must be widely read. It is impossible to envision any modern
organizations, including libraries, succeeding by staying slightly behind
the curve of service improvement as presented in the metaphor discussed
by users and leaders in the report. Being behind the added-value service
curve means: (1) the needs of the majority of the people are being met
elsewhere; (2) the loss of a passionate new generation of users, and (3) a
scenario set for failure. Staying slightly ahead of the curve means creat-
ing library services with Wow!—i.e., giving users expected services but
also surprising them with added-value that they did not expect. A variety
of ideas for adding value (Wow!) to library services are discussed. Spe-
cific examples are given including time shifting, time saving, site shifting,
improving quality, reducing noise, customization, personalization, and
so on. In the Benton Report, users thought libraries should take a reac-
tive role, adapting to, rather than pioneering, new technologies. Since
digital technologies can and already do offer previously impossible new
services that can greatly improve consumer satisfaction and added value,
a reactive role to technology is not a prescription for success. Providing
sophisticated, value-added services, enabled by proven powerful new
nonlocal technologies, supports and fosters the library's local higher pur-
pose (public good).

INTRODUCTION
    The next generation public library must re-create the excitement

and passion for libraries, personal enrichment, and curiosity for learning that characterized the public library of the early twentieth century. The most crucial strategy is to rekindle the enthusiasm of the younger genera-tion who have just become or soon will be voters. The future prosperity of the public library depends upon re-creating such passion through a clear, unique, essential, compelling vision that is a real public good and providing more attractive services of far greater value to a larger percent-age of the potential user population.

Passion for libraries will derive from added-value service satisfaction, not from technology, telecommunications, computing, and buildings. Technology is an opportunity, in a number of essential ways, to add value to user services, but it is a means, not an end. Digital libraries, though very complex and with their own accompanying problems, can enable enormous innovative service opportunities—i.e., storing and retrieving dynamic integrated documents; providing exciting multimedia; reduc-ing the constraints of time and place; enabling customization and per-sonalization; involving through interaction and participation; promot-ing collaboration; and reducing the costs to author and to publish docu-ments and to create libraries. Sometimes simple low end technology can also often be employed to enable high impact user service satisfaction.

The public library must reinvent itself by incorporating new services that provide quantum leaps in added value to users. Such reinvention will require new organizational structures, new staff skills, constant learn-ing, collaborative partnerships, more focused and compelling visions, technology, and strong leadership. Innovative library services and struc-tures are essential and will require extraordinary imagination, nerve, and resourcefulness. These are huge tasks, requiring strong leadership, with profound implications for the library profession and current library stake-holders. Leaders are especially needed in this time of great change.

The Benton Foundation's (1996) *Buildings, Books, and Bytes: Libraries and Communities in the Digital Age* is a thought- provoking study that must be widely read. It should help public librarians, their leaders, politicians, users, and the public understand how both library users and library lead-ers think about the future of public libraries. It has shown us that "the general public's ambivalent attitude toward libraries' identity and role"(p. 39) places "libraries firmly in the past"(p. 30). This demonstrates that many users, especially the younger generation, currently lack passion and enthusiasm for library services. The evidence presented in this report suggests that the library leadership has failed to sell a compelling vision of the future public library to the average citizen. The report says that the public library has failed among young adults to generate more than 27 percent support for the "notion of the libraries' increasing importance..."(p. 19). In short, the young do not see much of a future for public libraries.

In spite of some impressive public library examples of compelling future library visions, innovations, and services, citizens, particularly the younger generation, remain either largely unaware or unconvinced. Perhaps this is because many library staff either lack the vision and/or find the future vision to be troubling, uncomfortable, or painful. If public library leaders do not boldly, constantly, and publicly sell their vision for the future, then certainly libraries will be firmly rooted in the past.

Public surveys, such as the Benton Report, are a valuable source of current customer attitudes but are not a good way to create a vision of the library of the future. Public libraries need leaders with strong and compelling visions of the future, who know what is possible, who convincingly sell that vision to the citizens, and who are willing to take the necessary risks to make that vision a reality.

Robert Lutz, vice chairman of Chrysler Corporation, said: "Let's face it, the customer, in this business and, I suspect, in many others, is usually, at best, just a rear view mirror. . . .Being customer-driven is certainly a good thing, but if you're so customer-driven that you're merely following yesterday's trends, then, ultimately, customers won't be driving your supposedly customer-driven products!" (p. 84).

Almost any corporate executive will tell you that the average consumer does not possess a compelling vision of the future. Rather the average consumer wants the best that they have ever seen from choices they have been presented. The majority of consumers do not possess the necessary knowledge, skills, or creativity for composing a compelling vision of the future in a particular endeavor such as libraries. This is the work of visionary management and staff. It is the work of library leaders.

STAYING SLIGHTLY AHEAD OF THE CURVE

"The 'behind the curve' metaphor permeated these Americans' views of libraries..."(p. 30). Can public libraries survive, as the survey participants suggested, and "stay just behind the curve? " (p. 30). Perhaps this is the most disturbing part of the report.

What is the curve discussed? The curve, mentioned in the report, represents technology use over time within libraries. The curve should have meant the number of users, over time, who are satisfied with the added value of a service enabled by proven new technologies. The curve of those using enabling technologies always precedes the curve of users satisfied by a service. The curve of service satisfaction means pioneering huge service improvements or new services enabled by new, but proven, technologies.

It is impossible to envision any modern organization succeeding by staying slightly behind the curve of service improvement. If the public library is not viewed by the majority of the voters as current, relevant, and meeting their needs, then it very likely will lose both political and eco-

nomic support. As with most new products and services, the earliest adopt-
ers and those who arrive behind the majority of service providers, share
the same fate, a high probability of failure.

Being behind the added value service curve means that the needs of
the majority of the people are being met elsewhere. This is a scenario for
failure. The majority of users who find satisfaction elsewhere will not
usually be motivated to switch later to the public library. They will also
be less likely to politically support the public library. Competitors such
as Barnes & Noble, Blockbuster, and Internet providers, have demon-
strated not only that they can quickly deliver new services and greater
added value for a fee but also that they can attract many former users of
the public library.

If public libraries lose more economic middle-class users they will be
increasingly viewed as the agency for the poor and those on the margins
of society. While this is a worthy group of users who indeed must be
satisfied, it will be increasingly more difficult to obtain adequate political
and/or economic support. The public library must cultivate a large pas-
sionate group of middle-class users especially among the young voters.
These voters are people who have needs that are not being met currently
because they do not have the time to come to the library, or because the
public library does not have the services, materials, equipment, informa-
tion, and/or just because it is just too inconvenient to use. Society has
changed, but many public libraries remain very traditional in their ser-
vices.

If some public library administrators or boards of trustees blindly
follow the "behind the curve" metaphor, it will become a self-fulfilling
prophecy, and those libraries will become a "kind of museum where people
can go and look up stuff from way back when" (p. 30) as the report
describes. The demise of public libraries as we know them can happen
only with failures of imagination and nerve. There is little doubt that
there will be a continuing "Great Debate" between those within the li-
brary profession who favor continuing the status quo, traditional library
services delivered in traditional ways, and those who favor innovative new
services and great improvements in existing services with much more value
added.

Leigh Estabrook (1997), in a recent *Library Journal* article, says that:
"The existence of digital libraries, home computers, super-bookstores,
and private information providers requires that libraries change. *BB&B*
provides insights into how" (p. 3).

Improvements in service, by definition, require change. Accelerated
improvements mean accelerated changes. Every improvement involves
change although not every change is an improvement.

Everyone is aware of the pervasive acceleration of our society. Alvin
Toffler (1970) spoke of this coming acceleration in *Future Shock* as early

as 1970. We are both the beneficiaries and victims of this acceleration in our work, play, recreational, and spiritual lives. The very turbulence of the changes makes it difficult to stay current, to compete professionally, and to keep time for ourselves. Yet we are benefiting from new and improved services and much greater value added.

The politics of the status quo is always easier, at first, than the politics of great improvement. Change causes friction between those who want the status quo and those who want improvement. Many call the politics of status quo "institutional inertia." Public institutions that seem to successfully resist great improvements (i.e., changes) are ultimately superseded. Furthermore, change will be resisted by those most vested with the status quo and with the most to lose through change. Institutional and personal inertia, no matter how well intentioned, often blocks and or stalls improvements. That is precisely why the library profession now has the "Great Debate" which will be mentioned later.

Those organizations which are slightly ahead of the curve stand the best chance of success. Public libraries, like other organizations, must be far enough behind the earliest adopters to learn from their initial mistakes (i.e., those with far more resources), and far enough ahead of the majority to achieve a large market share. As will be discussed later, success in the digital environment will go to those with the largest market share.

Public library "market share" is twofold: (1) those who use and depend upon public library services, and (2) those who vote to be taxed in support of the services as a public good. Public libraries must strategically and dramatically increase the market share of both groups in their local service districts, and this cannot be done by being behind most of their users. Progress can only be accomplished by staying slightly ahead of the curve—i.e., staying ahead of library user expectations.

Imagine the enthusiasm of a young woman obtaining her driver's license or new multimedia computer. Now imagine that young woman generating that same wonder, excitement, curiosity, and passion using new library services. The public library of the future, like all organizations, must create what Tom Peters calls Wow! Libraries must not only give consumers what they want but surprise them by giving them some added value that they did not expect.

Library use is and will be discretionary and must have a noble public good. It must stimulate and excite user interest. Future libraries will compete with all sorts of other attractions for our time, attention, and dollars with alternatives that pique user curiosity, stimulate learning, promote enjoyment, and uplift our spirit. The vision of the public library of the future must engender passion and satisfy user personal interests, lifestyles, values, learning styles, pace of living, and so on. And the public

library must clearly be in the public interest—i.e., it must satisfy a clear public good needed by society.

What happened? Why doesn't the new generation share the same passion for libraries held by the previous generations? Is the public library doomed to ultimately decline until it is of marginal use and need? Will the developments of the digital world zoom past the future public library as many library users claim in the Benton Report?

It is not too late. There are already powerful new service innovations, ideas for services, new and proposed organizational structures, and systems for generating renewed passion, but they are not widely known or used. In addition, the profession has just barely begun to generate such creative services and, more importantly, to recruit bold visionary leaders who can make them happen. Which library boards and leaders will be bold enough to take the necessary risks?

ADDING VALUE

When you, as a customer, say "I got a great value" what do you mean? More often than not, you mean that you got more than you expected for the money you paid. Creating library services with Wow! is about adding value to user's lives. Providing Wow! means that libraries must not only give users what they expect in added value but surprise them by giving them some added value that they did not expect.

Understanding the Wow! of the library of the future means understanding how a library adds value: (1) to individual public library users, and (2) to the community in the form of a public good. Specifically, the public library must add specific agreed upon value to the community as a whole. This is why the public library is a community institution funded primarily with tax dollars.

The concept of adding value to and through services is not well understood. There is no direct and automatic cause and effect between work performed and value added. Although a lot of work may be performed, user value does not necessarily increase and can actually decline in some situations even though a lot of effort, time, and money have been spent. Value added occurs at the end of a process when the total steps, activities, tasks, and resources produce an output which the user judges as value added. Even high quality processes/services do not necessarily add value from the customer's perspective. Value added means providing real benefits from the customer's, and only the customer's, point of view.

Value as seen by a customer is not measured by the quality of the service per se but by the quality of the result for the customer. In short, we need to measure our progress by what our users tell us even when such measurements may be "soft." Hard counts, such as circulation, may

be easier to measure but do not let us know about user perceptions of added value.

Value added also means that the service is valuable in relation to direct user costs. Sometimes users prefer to purchase an equivalent but improved service elsewhere rather than use a free library service since it provides the minimum added value they require.

Recently, this author's twenty-six year old daughter decided to spend $50 of her own hard earned money to become a member of a larger public library, about six miles further away than her local public library, because the amount and availability of books, videos, and services was so much greater. In short, the local public library is currently insulated from dissatisfied library users taking their tax dollars and going elsewhere. If this continues, the library community can expect competition in the form of political erosion as our younger users find better services elsewhere.

The value of a specific service must also be judged in relationship to the user's personal time and effort spent. Only the user can judge this. For example, one user may be willing to pay a higher personal cost for a service in order to save time, while another user may find the extra cost prohibitive.

Imagine that a user goes to the library and looks for a specific book— e.g., *Angela's Ashes*, which a friend has highly recommended. *Angela's Ashes* is not owned, so the user takes out four others that might be of some interest. The circulation count might show an increase of four, but the user leaves disappointed and has to tell her friend that she could not obtain *Angela's Ashes*. The four other titles, on the other hand, may or may not prove to satisfy her. She may order *Angela's Ashes* through interlibrary loan and get it in a few weeks which might be enough to satisfy her or perhaps that would be too late. The point is that only that particular user can tell whether she was satisfied and what would have improved or added additional value.

The circulation function of a library is one which usually adds no value to a person who is standing at the desk ready to check out his/her books. The user's objective is to leave the library or go onto something else with the books already in hand, in the shortest possible time, and with the least amount of hassle. Circulation adds no positive value to that particular user.

It may appear difficult to add value by saving time with some services such as charging out a book. However, there are ways to decrease the time a user must spend waiting to charge out a book. Circulation adds value in the form of some security (i.e., insurance) to stimulate getting books returned so that the next user can obtain them. Incredibly enough, libraries often spend far more money on staff salaries to get books returned (i.e., circulation) than they do on purchasing new books. The

added value of circulation for the user is to minimize the wait, hassle, and cost (less noise) of borrowing books from the library *and* to increase the stock of interesting titles. The best circulation process is one with no wait and no checking, invisible to the user. Value can be added to the immediate user by removing hassles and "noise." Self-check-out circulation, while still not 100 percent effective, may finally be the needed improvement in minimizing user noise and hassle.

By comparison, it may be easier to understand the user's attitude when thinking about standing in line at a motor vehicles department when all the person wants is to be able to drive legally and without annoyance. The purpose of motor vehicles departments is to ensure safe drivers and vehicles, not to grant paper licenses, permits, registrations, and make people wait.

Value can be added in many ways, cannot be taken for granted, and must be continually assessed. Adding value may involve but is certainly not limited to:

- making a service easier to physically and intellectually access and use;
- providing a more desirable document format;
- supplying more accurate, current, and reliable information and documents;
- providing all of what the user wants and only what the user wants;
- saving user energy and resources;
- saving user personal time;
- shifting user service to a more convenient time;
- reducing noise and unwanted distraction;
- saving user money; and
- adapting input and output in a personalized or customized manner that makes personal and group work flow easier or faster (some of the added value concepts noted were suggested by Taylor [1986]).

Value can be added with or without technology. For example, library service may be expanded by adding more convenient hours, increasing value. Sometimes technology can add value, such as when a user can search the library catalog from home without traveling to the library to find out whether the item is available. Sometimes technology does not provide direct user benefit such as the early online circulation systems that required more time to charge out books even though they were more thorough.

SAVING TIME

Saving user time means that a user perceives that the amount of personal time collectively and cumulatively spent has been reduced in order to access and receive satisfaction from a particular service. Saving time may also include the time spent preparing to use a service or the time

spent integrating the output of that service into later work—i.e., personal or group workflow. For example, if a user is going to cut and paste some quotes into a paper that he/she is writing, then providing the output of the article as ASCII text or a word processing file may be time saving in the long run, even though it may take slightly longer in obtaining the direct service. Libraries have traditionally only considered the user's time in receiving a service and usually only at the library.

Sometimes a librarian might not completely understand the user's need. A user may rely on a single particular online, less complete, re-source. The librarian may assume that the user is not getting the best quality since the search was not comprehensive. The user may decide, given his/her limited time, that it is worth trading off a comprehensive search in the best available sources in favor of a faster search. The user may not even have the time just then to learn a new database even when it may be a far better source. This is the very reason that "value added" can only be judged by the user.

Saving users' time may be the fastest growing added value in impor-tance, since every person has a limited fixed amount of time and atten-tion, for which there is increasing competition. In a world of accelerat-ing improvements—i.e., also accelerating change—most users want ser-vices that save more of their time, their most valuable personal resource. In this world of accelerating change, the library risks losing users (and their political clout) when they feel that the library has not saved them more personal time. Saving user time may be the key to increasing the number of middle-class public library users.

SHIFTING TIME

Shifting time means providing more convenient times (alternatives) when the user can access and receive the service. Shifting time is differ-ent than saving time although they can overlap. Scheduled library hours are one traditional way of time shifting. All time is not equal. There are times when many activities demand and require a user's attention and others when the user has more freedom or latitude to choose where to focus. A library which understands this will be more successful and add value to user services by adding many more convenient hours.

ATM machines are a great example of time shifting where services such as withdrawing cash, making deposits, and checking balances can happen anytime. ATM machines probably will absorb less consumer time since customers can ordinarily bank at off-peak times (time shifting) and wait less (time saving). Ironically, the actual time to complete a bank transaction may be the same or even longer than when a teller was deliv-ering the service, but the ultimate overall value added is what counts.

One example of a new library service which provides time shifting is relatively simple technology: lockers with one-time user combinations

(e.g., American Locker Security Systems, Jamestown, New York). In this service, a library builds a lobby adjacent to it that can be accessed at any time even when the library is closed (similar to an ATM lobby). The lobby itself could be locked and accessed with a combination, or a library card, or even left unlocked. When a user has searched and discovered a book but cannot get to the library because it is closed, the user may request the item to be placed in a locker. Books are placed into a computer-controlled locker from a secure staff area, usually circulation. The user is called or sent an e-mail message or fax with the locker number and the combination. The user, and only that user, can then stop at the library anytime, enter that unique combination, and pick up the book(s). Once that locker has been opened it can no longer be opened with that combination. There is even an audit trail of activity. The user both shifts time by not having to be present during regular library hours and also saves time.

Digital libraries shift time when the user is satisfied from home, school, office, etc. over the network. Indeed users are able to obtain library services when and where they otherwise would not have the opportunity. In the early 1980s, the Public Library of Columbus and Franklin County, Ohio (now the Columbus Metropolitan Library), joined in an experiment called Channel 2000 along with OCLC and Bank One. In this experiment, users were able to search the library catalog from home and order books which would then be mailed to them. Any book would be mailed free, hardback or paperback. This service predated personal computers in most homes. It was enabled by telephones, televisions, and a special box (primitive computer). The service was so popular and easy to use that the library finally had to place a limit on the number of books which could be borrowed at one time (nine). Interestingly, the primary users of the service were not heavy users of the traditional library. The users were professionals, bankers, lawyers, and others too busy to get to the library during regular library hours. Channel 2000 was a great example of time shifting.

One other observation about the service was that at the end of the experiment, the service also ended. It was estimated that providing the service to the entire metropolitan community might cost about the same as two large branch libraries which politically could not be sacrificed.

In a speech to the Public Library Association in San Diego a few years ago, this author suggested that the library profession should pursue the library's equivalent of the ATM, called the Automatic Library Machine (ALM), which would be placed in many public locations and neighborhoods. Automated kiosks (e.g., PIKinc Germantown, Maryland) are now available and provide searching and retrieval of information and faxes to public machines but do not yet provide books. The ALM, still just a concept, goes one major step forward by permitting the borrowing

of books. The ALM could store a collection of several hundred books with some titles available for immediate circulation to the next user.

Other ALM titles could be placed on reserve by users who request that the library deliver that particular title to their local ALM. Imagine that you can search a public library catalog from home; locate an available book, video, or audio CD title; and have that item delivered to a local ALM in your neighborhood within twelve hours any day or night. You could then charge it out at your convenience. Imagine also that, when a user returns a book, it is immediately charged back and automatically placed in an available slot so that it can be borrowed by the very next library user. Such a machine would involve an elaborate delivery system. However, consider the value added for users (time shifting, time saving, and site shifting). Such ALMs could be jointly owned and operated consortia of public, school, college, and other types of libraries all sharing the same machines. The ALM could become a virtual local branch library until the day occurs when it is feasible to deliver and print out books over the network from user homes and offices.

SITE AND LOCATION SHIFTING

Libraries have been providing site or location shifting for years through branch libraries, bookmobiles, and books by mail. Location shifting, reducing the importance of geography in obtaining a specific service, is expected to have even greater impact on library services in the future. Branch libraries have made it possible to use a "local" library rather than to have to travel further distances to main libraries. Of course, the branch library often has hours which are fewer than the main library (less convenient time shifting), and they typically have fewer books, videos, and services (less user-satisfying service). Yet branch libraries flourished and still do. They are visible, concrete, bricks and mortar, and they fit a sense of community.

Bookmobiles are mobile, but they lack the permanence (much less convenient time shifting), and have much smaller collections, greatly limiting usefulness to different user groups. Bookmobiles did increase site shifting convenience but usually not enough to offset their weaknesses for most people.

Books-by-mail programs began in rural America but also brought library services to people who otherwise would be totally unserved because of geography. They were excellent at time saving, time shifting, and site shifting, but they greatly delayed user satisfaction and were initially very costly. They usually involved the printing and distribution of expensive book catalogs which were often only a small subset of the total number of books available at the library. In order to control expensive mail costs, many were limited to paperbacks. Such books-by-mail services

lack the visible concrete political presence of a nearby branch although the service is still very important to many user groups.

Today the service options available to libraries to increase time shifting, site shifting, and service satisfaction have exploded due to the Internet which makes it easy to search and retrieve articles from home or almost anywhere. The catalog of the books-by-mail programs can be replaced at far less cost through a Web server.

QUALITY

Value can be added in the form of precision, reliability, accuracy, and consistency—i.e., quality. This is the heart of quality. Users expect precise accurate targeted services. If the expected service requested is a book borrowed from another library by a particular date, the consumer will not be satisfied if it is late. If no date is given then the user will expect that the timeliness will meet his/her unspoken needs. This seems so obvious that it is easily overlooked. Users expect a consistent level of service, however, whenever and whoever delivers that service. This takes a lot of care, training, and preparation and is not easy. Quality is perhaps the most important aspect of adding value in a service. Does the user get the service that was paid for?

Users and librarians are very familiar, unfortunately, with searching the library catalog and finding an apparently available title and then not being able to find it on the shelf. This can happen for a variety of reasons but it suggests to the user that the library is not able to deliver a consistent level of access and quality.

Studies of reference services by Crowley and Childers (1971) have shown that most reference questions answered by public library staff are inaccurate. The rate of inaccuracy has not changed much over time. Part of this was due to having out-of-date library reference sources and information, part to inadequately trained or insufficient library staff, part to a poor communication interview, and part to a lack of precision or comprehensiveness in resources. The average citizen may not usually think of the public library as their first choice on answering important and timely information questions accurately. One library, or even one librarian, may be better than others, and collections may vary widely from community to community, thus there exist few quality standards in reference services.

It is now possible, given the new technologies, to greatly improve reference accuracy. This can be accomplished with co-operative or collaborative databases. Librarians have an opportunity to immediately correct what is inaccurate and add more complete and timely information (i.e., higher quality). This has happened in cataloging with OCLC, where librarians have had a chance to correct errors and note appropriate revisions that their colleagues might have missed. When a database is up-

dated continuously, and when all librarians who use it have an opportu-
nity to update, add, correct, or comment upon the data, it is much more
likely to be reliable and timely.

Quality reference service also requires a widely implemented train-
ing program in all of the reference sources to ensure consistency. Clearly,
the accuracy or currency of an answer to a professional reference ques-
tion should not depend upon chance.

PERSONALIZATION/CUSTOMIZATION

"As companies gather, organize, select, synthesize, and distribute in-
formation in the marketspace while managing raw and manufactured
goods in the marketplace, they have the opportunity to 'sense and re-
spond' to customers' desires rather than simply to make and sell prod-
ucts and services" (Rayport & Sviokla, 1995, p. 85).

When a consumer buys a shoe, he/she understands the importance
of the right fit. Yet, when libraries provide services, generally, one service
is designed for all. Future library services will no doubt be more custom-
ized and sometimes even personalized.

Personalization is developing as a result of advanced automation tech-
niques and the understanding that each user has his/her own require-
ments. Personalization is happening in service industries at an unprec-
edented rate since it adds great extra value to users. For example, the last
time that I ordered shirts from Lands End™, the customer service repre-
sentative asked me if I wanted my shirts like the last time I ordered them,
monogrammed, straight collar, extra stays, and so on. Not only did it
save me time, but it kept me from forgetting and having to return the
shirts for what I really wanted. It was real value added.

Has the day yet arrived when libraries can provide such customization
and personalization? Years ago when a user went to the local public li-
brary he/she was provided a personal service called reader's advisory,
which over the years became impossible to sustain because of increased
volume. If the librarian knew that the user liked John Grisham novels,
for example, and that most users who liked Grisham also liked Tom Clancy
novels, he/she would recommend a Clancy title if one was available on
the shelves. This could easily be duplicated in today's public libraries by
keeping statistical data and by comparing personal usage with local pat-
terns. Of course, all librarians would immediately argue that circulation
systems must protect user privacy by not keeping personal data on users
once books and materials are returned. Smart cards now make it pos-
sible to store every book that a user ever borrowed and other informa-
tion that could personalize the library while protecting the user's privacy.
Furthermore, such data go home in the user's wallet and are encrypted
should the card ever be lost.

EASY TO USE

Library systems which may seem straightforward and easy to use by staff are often impossible to use by new or casual users. For example, the library typically has been organized using a single classification system rather than providing alternatives easily adapted to different users and their styles. Public library users may have a problem when they search an academic library organized by the Library of Congress Classification scheme if they only know Dewey; or when they try to search for "electronic" libraries in the catalog and miss the material cataloged under "digital" libraries; or when they misspell a search term and have the catalog tell them that there are no books on that subject; or when the catalog gives a call number with a collection name but does not explain how to locate that collection. The examples are endless.

About two and a half years ago, this author took his fourteen-year-old daughter to the local public library to conduct a search for articles about Montreal attractions. She wanted to show that she could search the CD-ROM. After coming up with five citations that were among the local library's magazine subscription list, she proudly gave the citations to her father and asked him to retrieve them. She indicated that the librarians must personally retrieve the articles out of a back room and that they would respond better to adults than children. After waiting in line with three other adults for about fifteen minutes, the author gave the librarian the citations. The librarian returned in about five minutes with two of the five citations. Two issues were missing, and the librarian was too busy to get the fifth at that time.

Today such New Jersey libraries have digital access to articles, some on CD-ROM, and some available over the Internet/Web. There are designated geographic regions of the State Library of New Jersey (e.g., InfoLink) which have contracted with EBSCO using state funds to provide EBSCO Master File 1000, a networked database of abstracts and indexes to about 3,000 journal titles and the full text (ASCII) to about 1,000. Any public (or other) library in that region can immediately provide articles from 1,000 journal titles free to users and can interlibrary loan articles from the other 2,000 easily. The New Jersey State Library (Libraries 2000 Plan, a practical but visionary plan led by Jack Livingstone, state librarian) is even attempting to fund equipment and training for network access in every library, even the smallest. The user can obtain the articles from those titles directly and without waiting.

These services enable users to retrieve magazine articles directly without assistance and with virtual certainty that the magazine issue was not stolen. They can retrieve the articles faster and with less effort. From the user's point of view, value has been added to the service since they are assured of completeness and availability (quality—no missing issues) and since they do not have to wait or spend the time searching for and photo-

copying the magazine (save time). In the future, users will want that same service delivered to their home (site shifting and time shifting).

The Benton Report suggests: A third (35 percent) think it will be most important for libraries "to be a place where people can read and borrow books." Another third (37 percent) believe it will be most important for libraries "to be a place where people can use computers to find information and to use on-line computer services" (p. 22). Estabrook (1997) notes: "As increasing amounts of information are available electronically and home ownership of computers becomes ubiquitous, the library's hold on these first two 'places' becomes tenuous" (p. 47).

This means that users will want to search and print out the articles ultimately from home, completely bypassing the physical library. From the user's point of view, it will save time since they can accomplish their work without traveling to the library and expend far less effort and personal cost. It will also be far more convenient since it can be used late at night and at off-peak times when the library is closed. In short, a large amount of value can be added.

Recently this author conducted a search from his office on UMI's ProQuest Direct business database, found what looked like a relevant article in *Fortune*, downloaded and printed it at his desk. The most interesting part was that this article was dated March 3, 1997 but was printed on February 25, 1997. The currency of the information in this case was far better than the CD-ROM copy out in the library. In fact the article was available at about the same time that it was published on the newsstands. While this is not true of all UMI titles (due to their contracts with publishers), online information has the potential of being much more current. Currency is the future of publishing on the Internet and a way to add great value for users.

Many libraries are worried that direct user service such as ProQuest will "bypass" the library—i.e., that companies will do direct marketing. The library selects and licenses such databases and ensures that users know about it, and how to use it, and subsidizes the cost. This is added value. It means that less staff labor will be spent and this is certainly an issue that must be faced with library staff stakeholders. The point is that users will find a way to get this service whether the library delivers it or not. If libraries do not provide it, then they will lose relevancy, and political and, ultimately, economic support.

Value can also be added by making services easier to use, requiring both less effort and knowledge. The library catalog, in spite of our best efforts, is not easy to use when compared with other search tools. The library is often not open the very hours that users need it most. The catalog often does not give enough information to locate an item on a specific shelf. The catalog requires searching for music by text. Users

cannot yet browse the major movement of different recordings or per-
haps the trailers of films in the catalog. Imagine searching films of full
motion showing, for example, the images of all of the Stephen King films
by speedily browsing little screens. Search tools have improved greatly
but are still not particularly user friendly. There is work occurring here
which will create future catalogs that will be more like Flight Simulator
than our current OPACs.

Public libraries can be formidable to use. The user's chance of go-
ing to a particular public library and walking out with a specific desired
title is fairly low. The distance to the library, the lack of parking, lack of
good signage, and so on often means that the library is not easy to use.
The library does a pretty poor job of weeding out irrelevant material and
users desperately need assistance and easy-to-use tools to filter out the
unneeded material.

Another added-value library service comes in the form of alternative
document formats to suit a particular user's needs. Many public libraries
do pursue alternative formats. However, they often operate these ser-
vices as though such formats were either a luxury or marginal and/or
incidental to "fundamental" public library services—e.g., books.

Because of the time pressures already mentioned, many users now
want audio books rather than printed books. This service enables users
to capture time already chosen for one activity (e.g., driving a car or jog-
ging) and use it simultaneously for other activities (e.g., listening to a
book). In short, they can save time and provide a pleasurable or infor-
mative experience (e.g., language tapes). For many people, such audio
document formats are the only way that they will use library services given
their limited time. Are these users any less important than users of printed
books? Does the library provide as comprehensive a collection of audio
tapes as it does for books?

SERVICES ENABLED BY DIGITAL LIBRARIES

The Benton Report states that users think that, "libraries should not
take the lead in providing services in the digital age. . . .In fact, they
[users] thought libraries should take a reactive role, adapting to, rather
than pioneering new technologies" (p. 30).

Digital technologies can and already do offer previously impossible
new services that can greatly improve consumer satisfaction and added
value. If public libraries fail to take timely advantage of the opportunities
of digital technologies to improve services, they will surely lose both mar-
ket share and relevance to their users. Even so, digital technologies are
only important as they enable quantum leaps in service innovations and
huge gains in value added.

Libraries have never been, are never likely to be, and should not be
in the business of technology research and development. They do not

have the capital, expertise, or mission to create new technology. Libraries have historically relied on vendors to research and develop new technologies such as the OPAC. Libraries are in the business of satisfying users' information and document needs, and this means taking a proactive role in identifying and effectively using proven new technologies that can deliver value-added as soon as feasible. Libraries cannot afford to be alpha or beta test sites on delivering production services to all users. No libraries should pay vendors for unperfected and/or not yet adapted technology to deliver production services affecting all or most users. Libraries should only test new services using new or unproven technologies in carefully limited ways that do not negatively affect their users.

"A library is more than its collections or buildings; it is part of a social strategy to create 'progress in the Sciences and Useful Arts,' in the words of the Constitution. How might a digital library support the new kinds of research and creativity of an Information Society?"(p. 3). Peter Lyman (1996) states, "they suggest that even the most elementary kind of digital library will require more than an evolutionary change" (p. 10).

Just as physical documents—e.g., books, videocassettes, audio CDs, etc.—are the knowledge objects of the traditional library, digital documents are the knowledge objects of the digital library (e.g., digital representations of books, computer programs, interactive multimedia, etc.).

Digital documents can appear in many formats and, in some cases, can be transmitted and stored digitally, then printed and bound in a custom format when and where needed. Digital documents most certainly can and will frequently involve hard copy output. Digital documents can actually interact with the user and respond to the user's requests. For example, readers who have poor vision might change the document to increase the font or image sizes. Some interactive documents also enable users (not just authors) to directly add value in the form of new information.

Multimedia digital documents excite a greater number of our senses with much more information, including full motion images, animation, sound, speech/voice recognition and synthesis, graphics, numerical data, databases, process representations, and anything which can be represented digitally. Multimedia documents capture the imagination, are more memorable, and pique the curiosity of users.

Digital documents are cheaper to store, market, and distribute and therefore greatly decrease the cost of publishing as well as the cost of creating and maintaining libraries. Personal and small group digital libraries will soon become affordable and easy to operate. No inventories are required and no huge buildings are needed to house "collections." The decreased cost of publishing and distributing digital documents will provide less expensive opportunities for authors, artists, film makers, poets, vocal artists, and a whole group of other document creators to create and

sell documents to a much larger market. Publishing will boom in this digital era, and individuals and small groups will be the creative source for much of this publishing.

Digital documents can change dynamically. The updated version of digital documents can instantly supersede and replace older documents whenever desired. For example, a *Consumer's Report* on a new model car can be made instantly available to assist potential buyers.

The digital library reduces the constraints of time and locale (time and site shifting and time saving) so that users can browse, search, select, and use published documents 24 hours per day, 365 days per year. The digital library potentially enables almost immediate access to needed documents. Of course, this will not happen when the systems are down or too slow.

Current telecommunication costs are relatively expensive and inhibit remote access to huge digital documents (e.g., movies) for long periods of time. The experts are now predicting, based on improved technology, that the costs of bandwidth (bits per second) will be about 1,000 times less in ten years while computer power will cost about 100 times less in ten years. The cost of distributing, marketing, and selling digital documents will continue to fall while the cost of hard copy publishing continues to rise (e.g., journal prices). Public libraries must understand and position themselves so that they can take advantage of service improvements as the technology becomes feasible.

The digital library enables an extraordinary level of customization that is a change in the very notion of traditional institutional libraries. Traditional book stores, video stores, and libraries appear the same to the user. The digital library enables each user to customize the library in the manner in which documents are organized and arranged, to decide where they are to be stored, to decide what the format and appearance of each document will be, and how the documents can be integrated into the user's work flow. Such extraordinary customization actually can enable the digital library to appear personal and unique.

In short, it is not only possible but desirable to customize digital libraries to the unique needs of individuals and small teams of users. For example, a certain group of documents can be arranged in order of importance based on some rating system that the user has established, by the date documents were added to the DLB, or by the order in which they were read or used and so on. The possibilities are endless.

Digital documents have a number of obvious inherent advantages when compared with physical documents. They require much less space and therefore cost less to store. The quality of the digital document does not degrade over time. Movement of the digital documents from great distances is virtually instant when compared to moving physical docu-

ments. Not only are digital documents stored and moved electronically, but they may be produced as hard copy when and where needed.

The problems of the digital library are immense and will grow as the profession learns more. The problems include, but are certainly not limited to, preservation, physical access, intellectual access, intellectual freedom, universal access, content quality, privacy, security, and so on. For example, one recent discussion on the public listserv was how to place public personal computer screens so that other users cannot invade the privacy of the user and so that library users who are just walking past are protected from potentially disturbing material. The problems are many, but the potential opportunities for providing services with Wow! are much greater.

"The virtual value chain redefines economies of scale, allowing small companies to achieve low unit costs for products and services in markets dominated by big companies" (Rayport & Sviokla, 1995, p. 84). "As companies gather, organize, select, synthesize, and distribute information in the marketspace while managing raw and manufactured goods in the marketplace, they have the opportunity to 'sense and respond' to customers' desires rather than simply to make and sell products and services" (p. 85).

This means that not only will software decrease in cost, but digital publishing is likely to be much less costly than its hard copy counterpart. It is a shift from supply side to demand side thinking.

For example, in the near future, it will be possible for public libraries, realizing the power of the digital library, to create new and innovative services that really get that Wow! from users. They may actually collaborate and "publish" an online networked reference database which might include encyclopedias, dictionaries, atlases, and a collection of the 1,000 most used reference tools. This is a project that might be the library profession's equivalent of the Human Genome project. Perhaps this will be the logical, much more expanded, and better funded successor to the Internet Public Library sponsored by the University of Michigan (www.ipl.org).

Imagine every citizen getting access from home or office to such information which will be kept constantly current and linked to local information as well. Public libraries could provide 24 hour reference services, sharing the costs and labor in a huge collaboration effort crossing states and regions of the country with professional librarians providing expert assistance when needed. Such collaboration, already exemplified by the history of OCLC, can provide enormous and exciting service opportunities that libraries individually could not hope to accomplish.

Many libraries institute, maintain, and/or collaborate and provide critical local community information which is fully supported by the local citizens and is not only accessible in the library but from home as

well. Local community calendars, agencies, organizations, clubs, and other
local lists; local newspaper indexes; interactive multimedia courseware;
job ads; employment opportunity files; business, economic, and census
data; child care provider information; state, regional, and federal data-
bases; local school and college information; and so on may be part of
this. Some libraries provide higher end computers, peripheral equip-
ment, and software for users, and distance learning site facilities for col-
leges, collaborative activities with museums, art galleries, theaters, and
other cultural agencies. Some offer Internet provider services and meet-
ing areas for the community.

Digital library services are not the only way to add value. Perhaps
new branch libraries will become lifestyle branches rather than just geo-
graphical neighborhood branches. Imagine a local branch library that is
dedicated to the health, exercise, nutrition, and the environmental con-
sciousness of users. Or imagine a public library branch that is exclusively
a community learning facility where users can study packaged courseware,
discuss the material with other students, and collaborate with external
degree programs and/or local community colleges. Perhaps some branch
libraries could be generational and follow users as they grow older. Imag-
ine, for example, a Generation X branch library, tied to local colleges
and the YMCA/YWCA, new parents groups, and other agencies that are
currently related to that generation. It is somewhat amusing to consider
that such libraries might no longer fit very well with Dewey's useful but
dated classification scheme.

FINDING AND DEFINING THE PUBLIC GOOD

All public libraries are local. This may seem obvious but it bears
examination. All public libraries define their own public good (i.e., pub-
lic interest). The public good served by the public library in Springfield,
Illinois, is different from the public good served by the Genesee District
Library in Flint, Michigan. Public libraries which aimlessly provide spe-
cific services offered in other libraries without considering why such ser-
vices are in the local public interest are bound to drift into trouble. Can
the public library prove to local taxpayers and voters that the community
has and will benefit from some new or improved service, and that it meets
their higher purpose?

It should be understood that, while every public library is local, the
digital library makes possible enormous value-added services that cross
traditional service, district, state, and even national lines (i.e., the world).
This requires a much more intense focus on discovering services of mu-
tual interest among libraries and other agencies that may never have col-
laborated before. While the purpose of the public library is local, many
of the services and processes that will provide great added value are not.

The government obligation to promote the public interest distin-

guishes public administration from private management. In a moral and basic sense it must serve a "higher purpose." The public library may not be the only local organization or company performing a specific service, but it needs a higher purpose for taxing voters to do so. The public library must have a higher purpose, a moral mandate and, in some cases, stand diametrically opposed to for-profit organizations. The public library is not a book or video store or Internet provider. The Benton Report suggests that the growing numbers of younger voters and future taxpayers do not have the vision of that higher purpose.

Some libraries and their supporters believe that taxes should only pay for basic services and that users should pay for value added services. A California Joint Task Force, in a 1995 report, recommended for California: "To give public libraries the authority to charge fees for 'value-added services.'" This was motivated by the erosion of traditional tax support for libraries. This raises several questions which in fact will have an effect upon what library services or parts of library services are in the public good. It will also certainly impact the willingness of individual users to pay fees and voters to subsidize fee-based services. Almost certainly there will be extreme confusion over what services tax dollars pay and what services fees pay. It also may result in poorer overall tax supported services.

"Once you say to politicians that there are services that people must pay for and are not worthy of tax support, then you are exposing the whole spectrum of services to the question of which ones are worthy," said Library Journal's Editor-in-Chief John Berry, a long-time opponent of fees that provide a barrier to access between the citizen and the information (in St. Lifer & Rogers, 1995, p. 20). "When you start talking about 'value-added' information services—which means that if you have the money you can get the better, more efficient search—that discriminates against the poor," said Berry. The bottom line is that, if only new and improved services are offered to paying customers, political and tax support may further erode. This is both a case of preserving the traditional value of the public library and serving to stop erosion of voter support.

The recent public controversy surrounding the construction of the San Francisco Public Library is a great example of a situation where consensus was lacking on how the library adds value to the community. The discussion centered around a new main library building which added a lot of new technology but which provided the same or less space for books. This created open warfare (Great Debate) between many staff who wanted more books and the library director, Ken Dowlin, who wanted more information services using the available technology. The library director was fired recently, ostensibly for an apparent overspending of the budget, but one has to wonder whether this was a battle between the status quo and change. It is not at all clear that the citizens of San Francisco

were heard and had reached a consensus. At the very least, the discussion and consensus should have been reached through sufficient dialogue with the participation of the full community *before* the library building was even constructed. Library services and building decisions are too important to be left exclusively in the hands of the reporters, media, the library staff, library commissioners, the library director, and the politicians. Library services must follow the public agenda and the community needs and values (higher purpose).

If the community (not the staff, director, library commissioners, politicians, and media) had a consensus on library services in San Francisco which had Wow!, then it is doubtful that this debacle would have occurred.

Indeed, other libraries are flourishing. "I think staff morale is higher because of the challenges offered through the WWW, free public access to the Internet, etc. I'm very optimistic about the future of our public library. I think we do a great job and if usage is any indicator so does our public," says Christine Hage, director of the Rochester Hills Public Library (Hage to author, personal communication, January 27, 1997).

HIGHER PURPOSE: VISION

The public library must add value to the community as a whole, and this must take the form of a higher purpose and vision. This is why the public library is public and funded primarily with tax dollars. For example, the public library might promote the dissemination of knowledge, promote community renewal and re-examination, provide a vital information safety net, foster community collaboration, and stimulate self-learning. These are important values which can have a very positive impact on the health and vitality of the community. Such values must be translated into a consensus upon specific, effective services in a continuous full community dialogue. It means the full participation of the public library in helping to discover and pursue the community agenda.

This author finds the words of a recently deceased, passionate library user to be an excellent example of the higher purpose, value, and motivation behind services that provide Wow! "The library connects us with insights and knowledge, painfully extracted from nature, of the greatest minds that ever were, with the best teachers, drawn from the entire planet and from all of history, to instruct us without tiring, and to inspire us to make our own contribution to the collective knowledge of the human species" (Sagan, 1980, p. 282).

This quote is a passionate and personal description of a library from a library user, a scientist, who loved libraries and knowledge. The quote is insightful since it does not directly associate the library with "buildings, books, or bytes." Yet it is a compelling definition of a library, written over sixteen years ago before there were PCs and networks in libraries. The word "connects" suggests network, the heart of the digital library, but it

more importantly speaks to a critical bond between people. It is about all of "us" real people. The words "insights and knowledge" tell us about the essence of the library. The library connects us to people both living and dead. It connects us across time and space which is where the new digital library excels and where the library of the future most certainly will be. "Without tiring" suggests that it has continuous, permanent, and lasting value. And lastly, the library is not static and passive but is an active participant in "stimulating the contributions" of new insights and knowledge from many users. This quote is passionate, noble, worthy, and compelling, and it was not crafted by a librarian, library director, or politician. The next generation of library users must feel just as passionate and committed as Carl Sagan. That's the challenge.

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