## **Encountering the Twenty-First Century:**

## Libraries, Reference Departments, Reference Librarians

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[Focus on the future: the library, the reference department, and yourself, the reference librarian. Ken Berger gives a glimpse of the environment in which we will be working. Johannah Sherrer offers practical suggestions for moving a reference department from the status quo to status quo ante. Ilene Nelson describes the qualities that will enable individual librarians to make the transition.]

It is the year 2010. After attending classes, our typical college student returns to her room. She turns on her computer. The first thing she checks is her e-mail, finding that someone in her Psychology 102 study group has called a meeting for the next morning. She replies that she will be there. Next she calls up the list of assignments and updates it with new ones she has just been given that day. Then she gets to work, starting with her reserve readings. She calls them up, one by one; marks and saves important passages; and prints out a complicated item for later review.

One of her assignments is to write a paper on the history of computers in education. Not knowing much about the topic, she calls up an encyclopedia article for background, while using an online dictionary for help with unknown terms. At the same time she uses an outline program to sketch out her paper. Having decided on the focus of her paper, she searches for books on the topic, and, after narrowing down to a few likely titles, scans them for relevant passages. She inserts these into her paper, with the program automatically including appropriate footnotes. (Two books were not available online, so she checks for and reserves the copy in her college library and requests that interlibrary loan get the other one for her.) In order to make sure her information

is up-to-date, she also finds magazine and newspaper articles, again selecting the passages she will use.

After fleshing out her paper, she sees that there is still some information she is unable to locate. Online help is not satisfactory, so she sends a message to the Reference Department describing her need. She receives an acknowledgment and a promise to get back to her with further information; also a suggestion that it might be necessary for her to meet with a librarian for additional assistance.

Another assignment is to work on one of Anne Tyler's books. She needs to see the original manuscript, which she locates in the library. She decides to go to the library to use the materials before dinner.

After dinner she begins her final assignment, viewing the movie "Citizen Kane." She watches the movie on two thirds of her computer screen, while scanning a written commentary on the bottom third. Before going to bed she checks for electronic messages; finds a response from the library; checks her bank balance; and (finding her funds low) sends a short note to her parents. Finally, she orders a birthday gift for her sister, and schedules a flight home for the holidays.

She turns out the lights. The computer plays a soft sonata as they both drift off to sleep.

The preceding scenario paints a picture of an information environment very different from the one in which we operate today. It is characterized by an information user acting largely on her own, independent of library staff, independent of the library building, for most of her "library" needs. Yet, even in this environment, the librarian has a role.

And lest someone be left with the impression that we have almost twenty years to prepare for these changes, consider the following scenario, which is already being played out daily:

It is Tuesday, and once again Mr. Johnson is not going into the office, but he is not taking the day off from work. After breakfast with his family, he goes to his computer and checks his mail. He has received messages from his office, from his broker, from two clients (one in another country), and his daughter, a college student. Since his daughter mentions that she is low on funds, he checks his bank balance, makes a transfer to her account, and sends her a message telling about the transaction. His broker has suggested that he sell one security and buy another; he calls up market quotes and recent articles about the two companies. Then, deciding the broker's advice is sound, he sends a message to her authorizing the trades.

Next he directs his attention to the customer communications. One is concerned that recent federal legislation might affect a contract between the two companies. He checks for reports about the legislation, even retrieves a copy of the law, and then sends a message to the company legal staff to look into the matter. Another asks that their scheduled meeting in Paris next month be moved up a week, so, after checking his online appointment calendar, he connects to an airline scheduling service and makes the change.

He updates his calendar with the changes his office has sent him. The most pressing matter at the com-

pany is a marketing report, which he immediately gets to work on. In the process of writing the report, he is able to have software check his spelling and grammar, verify definitions of words, and locate appropriate quotations to accentuate his prose. When he needs market information, statistics, illustrative charts or tables, relevant articles or background information, he either checks through one of his data-base services or his CD-ROM collection. And when he does run into an information roadblock, he sends the question to his company librarian.

It is reasonable to expect that in only a decade or two users will seldom come into the library building. If they do, it will be for assistance with special problems; use of casual/recreational reading (primarily in paper format) and audio-visual/ multi-media materials and equipment; access for those who lack appropriate equipment and/or expertise; contact with people; and instruction, group and individual (though some will be done via remote access or off-site visits). There are four developments which are creating this reality: availability of full-text books and articles in digital format; powerful and inexpensive computer equipment; reliable and cost-effective communications networks; and simple and intuitive searching and retrieval software.

First, publishers are beginning to see an environment where electronic access is financially beneficial. The increasingly high cost of publishing, as well as diminishing library (and personal!) acquisitions budgets are making alternative forms of distribution very attractive. Many book and journal publishers are already requesting that authors submit their manuscripts on floppy disk.

Second, faster computers with more memory, and with better monitors are becoming available at a rate that measures obsolescence in months rather than years. Within a decade or two the quality of the equipment will be such that a user will have no qualms about doing the majority of his or her reading with one. Lowered costs are also making the improving equipment available to more and more end users. While there will always be some who are not able make the purchases (but who will still need library services), the statistics on the proliferation of personal computers speak for themselves.

Third, communications systems capable of delivering the data to the end user reliably and inexpensively are already in place. Many universities, colleges, and

companies have or are installing dedicated networks which allow both internal and external communications. INTERNET provides international communications between users and access to databases. Librarians are, of course, familiar with the access we have to vendors like Dialog and BRS, but end users also have other options for acquiring various kinds of useful information. A literal world of information and services - weather reports, stock market data, home shopping, encyclopedia, games, electronic mail, magazine articles, computer software, etc. - is available through systems like Compuserve, Prodigy, Genie, and America Online. These systems are aimed at the unsophisticated searcher, and their millions of subscribers point to the success of marketing and service. The widespread use of these services (recognized even by Dialog and BRS) clearly demonstrates that end users are capable of searching for themselves, and that they are also willing to pay directly for the convenience. The library is being effectively cut out of the information access process. Searching costs will become even more attractive as the number of users increases, and as assessments are more directly tied to the information user. (Once again, however, there will always be those who cannot afford to take on these costs, and their needs will probably have to be met by libraries.)

Fourth, we can see the creation of simple and intuitive (i.e., user friendly) searching and retrieval software, imperative if users are to be able to obtain most of their information electronically. Having the data at your fingertips is of no use if you don't know which keys to press or (mouse!) buttons to push to get at that data. And, once again, Compuserve, Prodigy, Genie and America Online are showing that we can provide this capability. Advanced technologies and techniques (e.g., cluster and vector analysis) will be used to index materials, making it possible to search efficiently and successfully through the large databases which will be available.

And here we come to the crux of the issue for librarians. What will the impact be of easy access, all from the comfort of one's home, to much more information and many more publications than any library could ever dream of owning? If users are able to successfully identify and retrieve the information they want, what is the role of the librarian?

Is it time to circle the wagons? Should we prepare to protect our jobs from the slings and arrows of outrageous computerization? Hardly. Yet, to assume that our role as information providers is going to remain the same is delusional. Access to information is changing dramatically and private for-profit companies are marketing these changes to an eager public. Even the smallest of libraries will find it necessary to re-envision reference services.

Librarians speculate about future roles and functions, often not realizing that the time is now. As has already been suggested, there are several fundamental trends that seem destined to impact the delivery of information:

- An increase in remote users
- An increase in end user databases
- An increasing demand for document delivery.

It is imperative that reference departments begin to alter both the structures and the mechanisms used to provide information. We cannot wait for a grand plan to run its course through ALA committees nor can we wait for the appropriate time and money to be allocated through local channels. As we hope for guidance that may never come, the challenge of keeping pace with change becomes increasingly difficult.

There are several excuses one hears repeatedly about why progress or creative change cannot go forward. These excuses, or myths, are often the reasons that librarians feel the profession is in crisis.

#### MYTH:

### We are too over-committed to institute new services.

Do not accept the excuse that the current workload is so overwhelming that there is neither time nor energy to try something new. That line could well be a swan song. Department heads who find themselves consistently using this excuse should seriously consider resigning their management positions.

New projects or activities, even small ones, must be implemented. Talk and discussion are good only if they lead to concrete results and ultimately to the completion of those projects. Adherence to a schedule is also critical. Projects that misfire are not necessarily wastes of time or money but rather experiences from which the most is learned. There are several rules of thumb for getting projects off the ground:

- Don't talk an idea to death; give it a chance to evolve in the actual practice of the concept or project.
- Be prepared to make modifications as you go along. Appoint a project manager to oversee progress and be responsible for point of need decisions.
- Let actual circumstances determine the outcome rather than trying to achieve perfection.
- Accomplishing even the smallest of

new tasks will be invigorating and prepare the way for new directions in reference services.

#### MYTH:

#### New services require additional funding. Do not wait for special funding to begin projects. Reallocate funding from within traditional budget lines. Change and new approaches are so much a part of what libraries are about that it is counterproductive to put new ideas on hold while waiting for ideal budgetary conditions. It is important to lobby local administrators continually for funding to effect changes in reference service. That may well mean sacrificing accepted funding patterns for new ones. In many libraries, it means hard lobbying for new budgeting practices or at the very least contriving creative definitions that ease square pegs into the more traditional round budgeting holes. We cannot allow ourselves to willingly accept budgeting conditions that restrict progress. If all a department head does is continually remind administrators that the existing budget structure must be modified, an important initial step will have been taken. A lesson in rhetorical technique can be

taken from the great Roman orator Cato, who never missed an opportunity to drive home his point that Rome was in danger from neighboring Carthage. Regardless of the subject of his speeches, he ended them all with "And furthermore it is my opinion that Carthage must be destroyed." Eventually, and within Cato's lifetime, Rome destroyed Carthage.

In the Reference Department at Perkins Library we believe that if we were to wait for additional funding to materialize we would be waiting a very long time. So, we regularly enter into bargaining sessions with

library administrators. In past years, we have used up to twenty-five percent of the budget slated for print reference sources for electronic sources. In other years, we have traded travel money for equipment purchases. More importantly we have found that in many cases money isn't the issue and simple solutions with minor costs can result from creative brainstorming sessions. For example, rather than waiting for the campus network to be in place before addressing the issue of serving remote users, we purchased a shareware bulletin board software called RBBS-PC to institute a twenty-four-hour electronic reference and interlibrary loan service. It was neither fancy nor sophisticated, but it allowed us an opportunity to begin interacting with patrons in a new medium.

Two years ago we determined that an additional online searching station was needed at the reference desk. The most expensive part of this new station was an additional phone line which was not approved by the library administration. In place at that time were two incoming lines and one outgoing line. After a brief investigation we learned that for less than fifty dollars we could transfer the outside line to a phone jack and thereby establish a second searching station. This was not an easy decision. In order to continue to accommodate reference queries via phone we implemented voice mail to handle calls when the remaining phone lines were in use.

#### MYTH:

#### We know what our users want or need.

While dazzling to users, the speed, ease, and glitziness of modern information access is often perplexing and challenging to traditional information providers. This dichotomy can prompt a variety of responses by librarians. Phrases such as "patrons will use the tools wrong" or "users are not technically literate enough to

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use expensive tools to their full advantage" are often heard. In this information age people are able to be more independent in obtaining information to solve problems. For many librarians, this poses a concern that can, unintentionally, lead to a form of censorship. While ostensibly attempting to justify the cost of new nonprint sources with a review of the product, librarians often look for reasons not to purchase rather than focusing on a unique or innovative feature of the product which makes it worth its price. It is also at this point that the subject of user needs is interjected, sometimes without actual user input. It is even more worrisome when patron input is requested, received, and then rejected.

The ultimate decision to accept, reject, or, indeed, place any kind of value on information has always been in the hands of the user. We do not want to deny patrons the option of consulting a librarian, but it should not be a requirement. Our point of intervention or involvement in the information-seeking process is changing. Attempting to define this new role in isolation from users will doom our efforts. We must allow users more freedom, and we must be careful in our presumptions concerning user needs and user behavior.

#### MYTH:

# Established staffing patterns and staff skill levels prohibit the implementation of new services.

Now is the time to take a long hard look at existing job descriptions. Job descriptions can and should be changed to adapt to new job requirements. Often through staff training or simple staff development sessions new experts can be found within the existing staff. All that is needed is patience and the willingness to allow the individuals involved the freedom to make mistakes. This process also

> provides an opportunity for reassessing existing activities in terms of reducing, streamlining, or perhaps entirely eliminating established functions.

> The evolution of truly user friendly information systems is going to impact staffing decisions. Many general products such as InfoTrac actually serve, in a sense, as additional staff members. They offer broadly based reference service along the same lines as student assistants or less precisely trained staff, plus they are available more than forty hours a week and have less down time than their human counterparts. It seems very likely that

technology is going to allow users to be better and more quickly served in the future and with fewer human resources.

Now is the time to objectively investigate reference positions. Department heads should seize opportunities as they arise through normal staffing attrition. In the Perkins reference department we have two programs in place that utilize short-term employment positions creatively. For many years the Reference Department has had an internship program that brings in two library science graduate students for twenty hours a week each for a period of one year. The pay back for all the training and supervision a program of this caliber requires includes a direct connection to library education and curriculum, an opportunity to work extensively with individuals new to the profession, and the challenge of rethinking local practices when inconsistencies are brought to our attention by new staff members. Yet, the nature of this program still clearly puts us in the driver's seat. We are the teachers. So the question remains as to how to challenge a stable, extremely talented, opinionated, and somewhat independent group of professionals.

An initial opportunity presented itself when one our staff members requested and was granted a leave of absence for one year. Rather than filling the position locally, we decided to seek a visiting librarian, currently employed elsewhere, to work with us for a nine month period. We wanted the person to secure a leave of absence from his home institution and to have no reason to wish to ingratiate himself into the Duke structure. For this first visiting position we sought an individual willing to work with each member of the department on upgrading individual basic microcomputer and searching skills. We also identified several projects involving a technological application that we wished to explore.

This concept was so successful that when normal staff attrition made it possible to keep the visiting position we did so rather than seek another long term employee. The advantages of bringing in an experienced, creative individual, willing to challenge existing local practices can be exhausting and exhilarating at the same time. It provides an opportunity to change group dynamics in a way that the internship program cannot and, in tandem with that program, it provides our group with a wide range of talents and abilities that change yearly. The overall effects of the visiting position are many. Each visiting librarian has brought a new point of view and has provided us with an opportunity to refocus our thinking on reference services. In addition to their professional expertise, they interject a new personality, a fresh perspective, and provide an opportunity for new collegial collaboration.

For 1992/93 we are seeking a faculty member from a Library School to work with us. Our job advertisement states: "We are seeking a colleague who wants to challenge the traditional roles and functions of reference services and work with us in envisioning and creating reference service for the research library of the twenty-first century. We want a person eager to investigate rapid document delivery, electronic journals, full text sources, online searching, and the use of a burgeoning array of other technological resources. We seek a risk-taker, a person who chooses to actively participate in a changing profession The key to successfully meeting the future rests in each staff member's attitude or approach to his/her career. All other considerations aside, the ultimate success of the library and its departments in meeting organizational goals, and in meeting the present and future challenge, depends upon the quality of the contribution of each staff member. A creative, self-directed, approach to job performance will eventually determine the success of the individual, the department and the library itself.

In his book entitled *The Courage to Create*, Rollo May describes "creative courage":

> This brings us to the most important kind of courage of all. Whereas moral courage is the righting of wrongs, creative courage, in contrast, is the discovering of new forms, new symbols, new patterns on which a new society can be built. Every profession can and does require some creative courage. In our day scores of [professions] are in the midst of radical change and require courageous persons to appreciate and direct this change. The need for creative courage is in direct proportion to the degree of change the profession is undergoing.1

At this juncture there is no place in our profession for any but courageous, creative librarians who are not only willing to embrace change but to anticipate it. As the old sixties' slogan goes, "You're either part of the solution or part of the problem."<sup>2</sup>

But what is a creative librarian? We generally think about creativity as a quality manifested by visual artists, musicians, scientists, and inventors. However, the essence of creativity as defined by Rollo May and others is this ability to see and establish new patterns. Far from being limited to an association with a "product," creativity can be viewed easily in terms of problem-solving. So, everyone who works, everyone who is involved in problemsolving activity operates within the context of creative potential.

How creatively each of us solves problems depends upon the manner in which we use the information available in a particular situation. According to Edward de Bono we process information both verti-

cally and laterally. Vertical thinking, the more common of the two, is high probability thought. "Vertical thinking follows the most obvious line, proceeding straight up or down."3 ("I've heard this question before"; "This is the way we've always done it.") In contrast, lateral thinking explores "all the different ways of looking at something, rather than accepting the most promising and proceeding from that."4 ("What if ..."; "Let's pretend....") Lateral and vertical thought are complementary. "Lateral thinking generates the ideas, and vertical thinking develops them."5 We all have the ability to think both vertically and laterally. However, most of us have to train ourselves to think laterally. It is essential that we do so because the key to releasing creative potential seems to be in giving lateral thought initial precedence in problem-solving.

Creative problem-solving reflects the action of imagination, a fluency of ideas, curiosity, originality, flexibility, independence, persistence, drive and courage, sensitivity, a feeling of being challenged (rather than confused) by disorder, and an ability to both synthesize and abstract. These qualities have always distinguished outstanding librarians; these qualities must typifylibrarians as we approach the twentyfirst century. Dale Shaffer has applied the characteristics of creativity specifically to librarianship, and I have further adapted them to reference librarians.

Imaginative thinking goes beyond the obvious boundaries of a problem and permits a fresh examination of what may initially seem to be an all too familiar situation.6 When viewed imaginatively, a problem or question ceases to be a wall which must be surmounted and becomes a maze through which to pass, a puzzle containing the key to its own solution. Imaginative thinking drives creative librarians to reallign the library's departmental functions to more effectively parallel new patterns of ownership, access, and use. Imaginative thinking frees librarians to reassign funds traditionally spent for print sources in order to purchase online searching time.

"Idea fluency is the ability to generate a large number of ideas and alternative solutions rapidly. Fluency also refers to the ability to take continuous advantage of a developing situation; to use each completed step as a fresh vantage point from which to plan the next move."<sup>7</sup> Every reference librarian demonstrates this skill while answering questions. As we approach the year 2010, it is idea fluency that will also permit us to assume a larger role as facilitators, helping patrons navigate through newly created channels of information.

Questioning ability goes beyond "getting the facts" or negotiating the reference question. This quality refers to an insatiable curiosity; a willingness to answer a question just because it's there.8 Taking a broader view, this questioning ability is what motivates creative librarians to reevaluate continuously their own effectiveness; the quality of the resources they use; and the validity of the policies under which they are operating. We must model ourselves after George Bernard Shaw who said, "It is an instinct with me personally to attack every idea which has been fullgrown for ten years, especially if it claims to be the foundation of all human society."9 We should probably question every idea which has been full-grown for more than three years, particularly if it claims to be an essential premise of our profession. If we are to have a professional role in the year 2010, we must question our narrow definition of reference service and expand our purview to encompass activities such as negotiating access fees for users and designing information databases.

**Originality** describes the ability to answer questions or solve problems in a unique or unusual manner.<sup>10</sup> The creative librarian sees questions initially in terms of the desired outcome rather than the manner in which the out-come will be achieved. This is a subtle yet significant point: the focus must be on the goal and not on any limitations that might prevent reaching it. We are more likely to find ways of adding new services in the face of stagnant or decreasing budgets if we are committed to the necessity of the services and not intimidated by the lack of money.

The *ability to synthesize*<sup>11</sup> refers to recognition of potential; bringing disparate elements together in harmony. When we are solving problems creatively, all of the available pieces of information sort themselves out in the subconscious into new patterns. The more connections we can make, the more potential solutions we will have. For the librarian of 2010, synthesis will be essential to assembling and maintaining the ever expanding atlas of the information world.

Related to synthesis is the *ability to abstract*. "This trait is one of proficiency at breaking down a problem or project into its component parts and comprehending the specific relationships among them."<sup>12</sup> Abstraction enables the creative librarian to examine the elements of a problem separately rather than as a single opaque mass. The librarian of 2010 will use abstract thought in the process of repackaging information for users.

*Flexibility*, in the context of librarianship, is the "[recognition] that there are many ways of interpreting the

same situation. It means being willing to consider a wide variety of approaches to a problem...Creative flexibility is largely a matter of attitude.<sup>13</sup> "In the year 2010 the reference librarian will be operating at a much higher level of information command and will of necessity be technologically and computer literate, ready to travel, physically or through electronic communications. Flexibility will underlie every consideration of information acquisition and distribution.

Research indicates that there is a relationship between independence of judgment and originality.14 As technological developments generate new means of accessing and displaying information, creative librarians are willing to be first in exploring applications and products. The pace of change is so rapid that we cannot afford to wait for standards to be written or for the experience of others to be reported in the literature. We must assume a proactive role, anticipating both the needs of our constituents and the means of satisfying them. We must end professional apartheid and attend the conferences and meetings our constituents sponsor or that are held by organizations which influence our libraries. We must also redefine professional reading to include journals that keep us abreast of broader societal trends relating to information delivery.

Finally, in order to solve problems creatively we must be able to feel challenged rather than confused by disorder.15 Ours is a profession which pursues order in a chaotic world. Reference librarians particularly are more likely to offer valuable assistance and achieve personal fulfillment by embracing disorder rather than trying to banish or ignore it. It is virtually impossible to create new patterns without first unraveling the old ones. When the qualities we have been discussing are in play, this follows quite naturally. In the year 2010, despite technological advances, it will still be difficult for many individuals to manage the constantly shifting base of information available to them. Professionals whose specialty is change will be welcome in this environment.

Creativity is an attitude, a habit of mind. It is independent of place or type of library or size of staff or budget. It is an approach to problem-solving to which we must re-commit ourselves daily. It is vertical thought with its logical pattern-recognition that comes naturally. We have to choose creativity. A creative approach to problem-solving energizes, brings freedom from an assortment of fears and worries and presents change as a condition to welcome rather than a crisis to be endured. Pogo's well-known statement "We has met the enemy, and it is us"<sup>16</sup> is very wise. We are information professionals in an information age. There are unlimited possibilities available to us if we but have the courage to be creative. If we cling to a traditional definition of our profession, we are doomed to extinction. If we seek a professional role attuned to a changing society, we will find opportunity.

#### References

<sup>1</sup> Rollo May, *The Courage to Create* (New York: Norton, 1975), 22.

<sup>2</sup> Attributed to Eldridge Cleaver [c1968].

<sup>3</sup> Edward de Bono, *New Think; the Use of Lateral Thinking in the Generation of New Ideas* (New York: Basic Books, Inc., Publishers, c1967), 4.

4 Ibid., 12.

5 Ibid., 6.

<sup>6</sup> Dale E. Shaffer, *Creativity for Librarians* (Salem, Oregon: Dale E. Shaffer), 16. <sup>7</sup> Ibid., 17.

8 Ibid.

<sup>9</sup>Elbert Hubbard, comp., *Elbert Hubbard's Scrap Book Containing the Inspired and Inspiring Selections Gathered During a Life Time of Discriminating Reading for His Own Use* (New York: Wm. H. Wise & Co., c 1923), 30.

<sup>10</sup> Shaffer, 18.
<sup>11</sup> Ibid., 19.
<sup>12</sup> Ibid.
<sup>13</sup> Ibid., 18.
<sup>14</sup> Ibid., 19.
<sup>15</sup> Ibid., 20.
<sup>16</sup> Walt Kelly, *Pogo.*

