Author Manuscript



# Moderately Risky Business

Challenging Librarians to Assume More Risk in an Era of Opportunity

JOYCE L. OGBURN

ne may not readily associate risk with librarianship; however, librarians deal with risk every day and in all parts of the profession. Acquisition functions, for example, include the risks associated with managing budgets and processes, producing appropriate audit trails, predicting and acting on pricing tends, and negotiating business terms and licenses. This is the area of librarianship where I began my career in the 1980s. Acquisitions trained me to think and act within a business context and to evaluate the risk of business transactions and relationships. The work had conservative elements that focused on avoiding potential problems, such as rigorously preparing for and facing audits or being careful to avoid any sense of unethical behavior with vendors or publishers. But my experience in acquisitions also emphasized that devoting unwarranted attention to exceptions and unlikely circumstances was counterproductive to achieving efficient and effective services.

In professional meetings acquisitions librarians discussed and informally assessed the risk of making business agreements with vendors and publishers. They debated the relative risk and value of putting all their eggs in one basket and incurring the potential risk of a vendor going out of business, versus using one primary vendor and reaping the benefits of higher discounts, more comprehensive services, and streamlined processing. Acquisitions librarians weighed the pros and cons and tried to monitor the health of vendors and used competitive bidding and contracts to mitigate the risks. Unfortunately the industry did experience the demise of Faxon, but despite this high profile failure, very few vendors have gone out of business. These strategies and risks are still in play and are accompanied by additional



challenges deriving from the extensive use of technology and the rapidly changing environment of scholarly communication.

When offered the opportunity to tackle the topic of risk and entrepreneurship, the thought of librarianship as "moderately risky business" immediately leapt to mind. One might argue that this phrase describes the approach to risk that librarians may be prone to take. One might even argue that "conservatively risky business" would be more apt, not just because librarians are conservative professionals, but because they are perceived to be reliable, predictable, and good stewards, carefully guarding the fruits of research and teaching and of our documented culture for centuries. They also deal constantly with budget pressures without a steady means of revenue generation. Others may even chastise librarians for taking too many risks given the enormity and importance of their mission. With these constraints it is no wonder librarians can be risk averse. By overcoming risk aversion and sharing ideas for rethinking conservative approaches and tendencies, librarians can reap the rewards that risk can bring.

#### ENTREPRENEURSHIP AND INNOVATION

Entrepreneurship is frequently associated with individual risk and individual rewards. Entrepreneurs are often viewed as people who single-handedly create and advance a vision through the force of their convictions, leadership, talents, time, and ability to develop an idea and secure investors. Despite the prevailing image, entrepreneurs do not succeed solely on their own—they find partners and build teams and organizations to accomplish their vision and ambitions. This process takes time, sweat equity, passion, and persistence—and it does not always lead to immediate or long lasting success.

Peter Drucker, doyen of modern management, offers sage perspective on innovation and entrepreneurship in several publications. In *The Discipline of Innovation* he tightly couples the two, stating "What all successful entrepreneurs I have met have in common is not a certain kind of personality but a commitment to the systematic practice of innovation," defining innovation as "the effort to create purposeful, focused change in an enterprise's economic or social potential." Drucker advises that innovation be simple and focused—in other words, one should do one thing at a time. In his book length treatment, *Innovation and Entrepreneurship*, he dismisses the idea that entrepreneurs are characterized by a propensity for risk taking. He sees them as "opportunity-focused" rather than "risk-focused." Librarians innovate and become entrepreneurs to serve users by advancing library programs rather than innovating for personal gain. Entrepreneur-



ship by librarians is different from that of other faculty colleagues; librarians have an organization to run and are conscious of their service role, cooperative imperative, values, and the limited resources on which their services depend. They know that their entrepreneurial efforts must primarily benefit the organization rather than the individual.

Entrepreneurship may occur when an individual perceives a service need and a solution is either fostered within the organization or externally as a new business. In the library field Serials Solutions is one example of such an enterprise. Its founder, Peter McCracken, invested his time and energy in developing a service idea, and then enlisted the aid of others to help him pursue his goal of helping libraries manage their electronic resources at the title level. The idea was fairly simple and targeted to a real need. The development of CONTENT dm is similar. Greg Zick, a professor of electrical engineering at the University of Washington, perceived a need for managing digital objects and pushed to develop, test, and launch a product (CONTENT dm) now in heavy use among libraries. As entrepreneurs and innovators, both McCracken and Zick had the ideas and took the risk of turning those ideas into products and eventually new businesses. Librarians assisted them by risking their time, staff support, and other resources to test out and grow these new ideas into something tangible and successful for the community. Supportive librarians anticipated that these two emerging services would be important to achieving a more economical and sustainable digital library infrastructure and thus deserving of some risk on their part.

#### RISK MANAGEMENT

Consider risk to have two aspects: risk taking and risk management. The term "risk taking" provokes an image of actions that are daring, foolish, and perhaps dangerous. Conversely, the term "risk management" sounds planned, calculated, and controllable. Librarians should think of risk in the latter sense, where risk is not eliminated but is understood and used to achieve desired results.

Organizational risk should be compared to financial investment strategies. Personal finance consists of a range of conservative, moderate, and aggressive strategies. Many people choose to invest in instruments such as money market accounts or certificates of deposit. These conservative strategies experience little volatility but actually may create risk by investing in instruments that may not keep pace with inflation. Conservative investors see consistent growth and believe that they are being wise and prudent in



their investments because it is not obvious that a loss is occurring. While interest will certainly accrue, investments may slowly and steadily lose their value to the forces of inflation.

Investors who are willing to pursue a more aggressive strategy by investing in stocks may actually experience less risk in the long run because their gains will surpass the rate of inflation. A key factor is time; the longer people have to invest the more risk they can assume and tolerate, and the better off they are likely to be. If one is thoughtful and plans and manages this kind of risk, strategies that seem risky actually entail less risk and accrue more value if played out over a sufficiently long period. Diversifying investments and periodically rebalancing portfolios also reduce risk.

The economic crisis that materialized in 2008 seems to overturn conventional wisdom. Rather than rejecting what history has demonstrated, the situation highlights the importance of having a plan, understanding the risks one is taking, following fundamental principles, having a stash of reserve resources, and avoiding panic. Time is still on the side of the savvy investor and new opportunities will continue to arise even in the current market.

Risk-taking has not been a part of a typical profile of librarians, who have historically been rewarded for being conservative. If one considers change and competition to be like inflation, one has to wonder whether libraries are keeping pace and ultimately gaining tangible rewards for their prudence. In a short time frame losses are not noticeable. However, risk aversion means missed opportunities to invest in high value activities that may, in the long run, produce better results for users and garner more organizational power. What follows are some strategies librarians should consider for managing risk.

The first strategy is to assess the organizational "temperature" for risk, and then to ask what is at risk, and who will potentially benefit or suffer. The question of what is at risk is also critical. Is the risk a financial, reputational, safety, or legal one? Is the risk personal or institutional? Other strategies include creating policies and plans to mitigate risk. Grants leverage ideas and resources to accomplish a goal for which time and money are normally lacking. Seeking partners who share similar goals and have a concomitant level of commitment, along with the appropriate expertise may pay off better than working within a large general group. Partnership agreements can minimize risk if the partnership is new and a trusting relationship has not yet developed. In either case a group investment spreads risk among many, much as investing in mutual funds mitigates some of the risk of investing in individual stocks. Consortia, being composed of multiple libraries, may provide a pool of money that allows the group to



assume risk that an individual library might shun either because of lack of resources or because the risk is too high.

Seeking out local resources is yet another strategy. A library in a university setting might consult the business school for help in developing a business plan. Depending on the policies and priorities of the institution, librarians may have access to venture funds to foster innovation and the pursuit of novel endeavors, leading to investments in new products, inventions, or business ideas. They may even be eligible to receive individual compensation from any revenue generated. For librarians, though, the lure of individual gain, large or small, generally is not a primary driver behind library innovation.

The size of an organization may influence risk management strategies. One might think that large organizations or those with substantial budgets have more opportunities or will tolerate more risk than smaller, less well funded organizations that normally have little extra capital or manpower for risky ventures. The latter could benefit from being part of a larger group, giving them the ability to call on more resources than they can muster on their own. The level of investment required by smaller organizations may be relatively less risky when underwritten by a group. Conversely, large organizations may be risk averse and resistant to change. The momentum of historic directions, habits and expectations can be very difficult to turn. Large groups may also rely on consensus, which may impede the ability to move quickly in new directions. Smaller organizations may feel they have less to lose (and everything to gain) and fewer people to consult, which can encourage agility and experimentation. While size and resources should be considerations, one should not assume that size is the sole determiner of risk tolerance or ability to optimize opportunities and manage risk.

#### RISK IN THE LIBRARY ENVIRONMENT

Librarians have a hard time resisting order and completeness—this can be a great strength, but also a liability. Fortunately, many libraries have moved beyond seeking perfection in favor of reaching more people and providing faster delivery of services and resources. Librarians also tend to design processes for exceptions and let worst-case scenarios rule their thinking. How much risk is there that an exception will happen? By definition an exception is an unusual occurrence. When a mistake or adverse event occurs librarians may make more rules and convoluted "just-in-case" processes to avoid potential but unlikely reoccurrences in the future. They are actually creating more risk by permitting improbable reoccurrences



to govern policies, processes, and procedures, and consequently are wasting resources that could be deployed to higher value activities. Librarians should design processes for the typical 98 percent of their work rather than the exceptional 2 percent. Then they can turn their attention to new problems and experiments.

Managing for exceptions afflicts more than librarians, as the history with license agreements attests. The fear of exceptions may cause publishers to lock down content in restrictive license terms and to invest a considerable amount of time and effort into crafting the perfect license. The risk of abusive use of databases or massive downloading of content may be low and sometimes little money or revenue is at stake. No doubt breaches and problems will occur, but one can question whether the consequences of an occasional problem are worth the effort of setting up draconian preparations and responses for all online resources. The developers of SERU, the Shared E-Resource Understanding, sought a new approach for arrangements that entailed little risk. SERU replaces a license with agreed upon best practices, achieving a mutually acceptable agreement by the parties involved without the need to invest heavily in lawyers and staff time.<sup>3</sup>

Librarians may also be trapped by fear of failure, believing that failure is unacceptable in their environment. While they hate to disappoint their users, they can be harder on each other than their users are on them. Librarians can develop plans that allow them to experiment and fail, learn, and do better the next time. They can line up support, set aside funding and space, and find grants and donors, as well as conduct research, assessment and pilot projects to provide a foundation for assuming risk. They should allow themselves the latitude to evaluate the long-term effects of new ideas and approaches and remember that time is in their favor in realizing investment goals.

Fear of success is another trap. Librarians may not want to risk being successful with new ideas, because if they are they actually will have to support their newfound success. Because formulating ideas is easy and managing transitions is hard, they worry that if their brilliant ideas work they will have to retool quickly and follow through with implementation. It is more comfortable to go along with familiar routines rather than risk something new. Successes deserve the same tending, planning and management as risk taking.

Librarians could profit as well from developing planning tools that include a risk assessment instrument by developing a risk tolerance assessment questionnaire similar to those used for financial planning. It would be interesting to know what kind of financial investor an individual is and what insights that knowledge would provide into how much risk someone is willing accept on the job.



Important and successful risks have indeed been taken by librarians including being at the forefront of the Internet revolution and exploiting it as quickly as possible. They were insightful in anticipating the value of being online and willing to risk plenty to move services and collections to the network level. Similarly, librarians have a long history of fiercely protecting copyright, fair use, privacy, and intellectual freedom, sometimes to great criticism and occasional scorn.

The recent trend toward mass digitization is one such example. Whether or not one applauds the Google 5 libraries for their decision to allow a commercial partner to digitize their collections, it is evident that these libraries took a deliberate risk when they decided to work with Google rather than conducting large digitization projects alone or in groups. The decision was gutsy, and these libraries have taken heat for participating in this project. Nonetheless, they are shaping the environment rather than simply reacting to it or resisting a project that offered decided benefits, despite some troubling aspects. Librarians are learning more from this endeavor than they would have by sitting on the sidelines.

In tandem with pursuing risk, librarians have reduced risk and leveraged their resources by forming alliances or founding organizations such as consortia (e.g., OhioLINK, Greater Western Library Alliance), service organizations (e.g., the Center for Research Libraries, OCLC and LOCKSS), and even publishing ventures (e.g., BioOne). They have used these relationships to spread risk (and rewards) and to advance the goals of all participants, finding scalability, safety and economy in numbers.

#### **OPPORTUNITIES**

It is worth remembering that Drucker says that entrepreneurs are opportunity-minded. Some new trends offer great opportunities for librarians.

Since the resources on which scientists rely have moved online, the need for more direct services provided by librarians has decreased. With requests for reference assistance declining, buying journals (when affordable) has become the main service libraries offer. In recent years scientists have been developing their own knowledge systems and methods of knowledge management, including informatics, digital libraries, software tools, preprint services, and data networks. What future can librarians envision with scientists?

Conversations about cyberinfrastructure and research computing have brought attention to changes in the conduct of science and the resulting



service needs for conducting research, sustaining and capturing the non-published conversations of science, and curating the resulting data and the software that underpin science. For some time the National Institutes of Health have required researchers to deposit their data in an NIH repository and to do so in prescribed formats. Now, they have mandated that researchers deposit peer reviewed, NIH-funded research articles in PubMed Central. Simultaneously, calls for stronger data management plans in other federal granting agencies are growing. Working with data and other scientific information entails risk because it requires rethinking how librarians will exercise their roles as knowledge managers and stretches them to learn new skills or recruit new kinds of staff.

Managing scientific knowledge, one could argue, is as large a challenge as conducting computationally intensive science, and science fields are not the only ones being transformed. Digital technologies that have catalyzed the rapid changes in science are quickly infiltrating other fields. While librarians at relatively small, liberal arts institutions may not face the magnitude of the data management issues confronting librarians in larger institutions, their faculty and students will still be producing and using digital scholarship that requires tools, management, and curation strategies. When the world of scholarship is changing so fast and in so many different ways, worrying about mistakes that occur in processing print material, managing for exceptions, or creating perfect records must cease dominating the work of libraries, or they face the risk that their users will leave them.

Librarians can also provide assistance to faculty who feel pressured to start using more digital tools but who lack the necessary skills and may be reluctant to ask for help. Few people like to show their ignorance and many would welcome a safe place in which to learn. The library is such a place. This opportunity goes hand in hand with supporting digital scholarship.

As librarians contemplate risk-taking strategies along with imperatives to change, they should keep in mind the opportunities afforded by their strong campus relationships. They have a nearly captive audience and should take advantage of their proximity to their users who generally trust and respect librarians. However, users may not fully understand the transformation of library services that is underway and the new roles that are emerging for librarians. They may not want librarians to change, or may not be aware of the expertise that librarians can and should bring to the task of managing diverse knowledge resources. Librarians must be able to convince their users how these new roles build on historic traditions, values, missions, and strengths. Librarians and their users have many reasons for mutual reinvention and collaboration in common with their users and can help each other develop new services.



#### **THREATS**

It is also worth bearing in mind that libraries face threats, often in the form of competition. At times libraries compete not only with each other but also with local information technology departments and commercial enterprises. Competition for staff includes technology and computer specialists, as well as newly minted graduates from information and library schools. Companies such as Microsoft hire information professionals. Even when libraries attract younger professionals, these librarians may become discouraged with the lack of support or enthusiasm to experiment and do things differently, creating a potential retention problem.

Libraries also face competition for the time and attention of users who create and use many knowledge resources other than books and journals. Like the sciences, many communities of practice in the humanities and social sciences are developing their own modes of sharing knowledge using digital technologies. Publishers may market products and services directly to an information technology unit or to academic departments when libraries can not afford these products or fail to see them as falling within their scope. The library role as middleman can easily be bypassed. Librarians must retain and nurture relationships with their users, even when they take uncomfortable new directions. Libraries cannot risk being usurped by others with money or influence who are not as well suited as librarians to manage scholarly products and primary source material.

Moreover, at present the users' evolving modes of work are creating demands that are difficult to meet. Scholars may be working inefficiently or may lack good tools. Unless librarians are on the mark, users may seek help from their colleagues or from other agencies. On campus, there is often competition for funding and status with the information technology department, especially now that much content and many functions and processes are digital. While librarians know that principles, practices, values, and decisions—not technology—are the heart of services, this may not be evident to others.

#### RETHINKING ROLES

With entrepreneurship and risk management, as well as opportunities and threats in mind, how might librarians rethink their roles and services? Libraries still tend to define themselves around their collections. When librarians list their values and strategic areas, they often place building, organizing, and preserving collections right at the top. Is this shorthand for



the same old approaches and formats, or are new methods and meaning being applied to this value?

Librarians who have begun recasting collection development or launching institutional repositories as a knowledge management strategy have taken steps toward reconceiving their collections.<sup>5</sup> It may be time to formalize a new definition for knowledge management that emphasizes the unique nature of higher education, which is open and collaborative, in sharp contrast to corporate knowledge management, which is closed and competitive. Business or corporate knowledge management emphasizes processes, business data, judgment, and actions of an organization. In my definition, knowledge management for higher education may be divided into two parts: 1) institutional business data—such as number of students, budget information, and credit hours—that contribute to managing the institution and are of primary importance to a single institution; and 2) mission-based scholarly products that derive from teaching and research, characterized by articles, monographs, working papers, theses and dissertations, and syllabi that have importance beyond the institution. Managers of university records and archives should engage with the institutional business model, while librarians should manage the scholarly products and assets, which constitute a collective research knowledgebase, by offering and preserving knowledge within an open and shared system that benefits scholars everywhere.

What is risky or entrepreneurial about redefining and taking on knowledge management? The new approach goes beyond traditional collection development with its attention to collecting resources by subject and from many sources. Instead it turns to the institution as the source of the material to be collected and managed. Librarians also have to sell the new definition, instill it into campus policies and practices, and live up to the promise of collecting, organizing, archiving, preserving, and providing access to a wider variety of materials (and potentially a greater amount) than they do at present. Librarians will have to re-evaluate their priorities and reallocate resources to undertake higher risk ventures that hold the promise of more value to their users. Otherwise they will risk alienating both users and the library's own staff who have come to expect libraries to provide traditional services with traditional roles for the employees.

To assist with knowledge management, it may be profitable to take the additional step of supplanting the broad construct of information technology with a new concept of knowledge technology—technology that supports the collection, analysis, synthesis, and presentation of research material. Knowledge technology could be construed to be interoperable, contextual, semantic, interpretive, integrative, evaluative, synthetic, extractive, and based in content derived from the academic mission. Documents



and intellectual products would be smart and social, interact with each other, and be more independent of their creators, in effect living within a social network for "things" rather than people. Whether one accepts this concept as described, the point is that creating, managing and sustaining knowledge, particularly in an academic environment, should entail qualitatively different ideas and approaches from managing and transmitting information. If one assumes that knowledge technology can transform and is transforming the way in which scholars do their work, then librarian-entrepreneurs should grab the opportunity to envision, develop and apply knowledge technology to provide a richer research and learning environment for their users.

Library digital collections can serve as an example that benefits from the application of knowledge technology and knowledge management. Although all manner of digital collections have been created, they behave more like bits and pieces than cohesive collections. The catalyst that will turn these digital collections into compelling knowledge resources is often missing. Context is vitally important to understanding. Digital libraries contain images and texts that are disassociated from a context or that lack adequate explanatory and interpretive materials. These objects are static, in silos, and often presented unimaginatively and without adequate tools for manipulation. It will take time and ingenuity to craft products based in knowledge technology that can serve existing digital collections well. Libraries can allocate their resources and take risks to learn and apply knowledge technology to materials derived from the library's own collections.

The collaborative and open world fostered by the Internet offers innumerable opportunities for entrepreneurial librarians to stretch their wings and apply their prodigious talents. The Open Movement-including such concepts and products as open source software, open access, open courses, and open data—is an exciting and challenging development. Libraries have a lot to gain but could also experience real loss in the open movement—one could argue that potentially few have more to lose than libraries when open access becomes the norm. Rather than focus on potential losses, librarians should ask themselves whether they want the future of scholarship to be owned by the many or the few, to be open or closed, and then how they see themselves contributing to this future. An open future depends on active professional engagement and personal commitment, as well as institutionalizing the open movement. Librarians must be willing to expose themselves to the discomfort of advocacy, argument, criticism, and real change to be in the forefront of this movement. In fact, librarians have led the charge, along with many strong partners, on enacting legislation for public access to publicly funded research.



Librarians have able allies in the open movement. Many teachers and researchers are pushing to have their own works and those of colleagues in their discipline more accessible, read, linked, cited, and understood. Patient advocate groups are demanding more access to medical research. Libraries can also collaborate with a group I will refer to as competitive allies—those who work in information technology, museums, public broadcasting, and in a variety of not-for-profit organizations—with whom libraries can find commonality in the open movement. These organizations may also be seeking means to open up their collections and make their expertise more freely available, to bring more high quality and authoritative materials into the public arena via the Internet, and to help artists, writers, and other creators develop new forms of arts and sciences. Libraries and their competitive allies are all moving toward a more open approach and philosophy, allowing all of them to capitalize on this shift.

As libraries increase their presence in social networks, they may exploit these new modes of access to knowledge resources. Librarians at the University of Washington have embedded material and information from special collections in Wikipedia articles, which has heightened presence and usage. Some libraries, such as the Marriott Library at the University of Utah, are managing iTunesU for their campuses by identifying and pushing content from many sources to digital places that students and the public are likely to visit. Recognizing that being embedded in the Web was a strategic advantage, OCLC took the risk of making WorldCat freely available on the Internet to channel users more effectively to member libraries.

The development of social networks presents new research opportunities as well. For example, as folksonomies grow, librarians can explore and document how they develop and age. Are new formal or informal ontologies being born, and if so, how much use do they receive, are they being sustained, and how long do they live? Are folksonomies regularly updated by users or do they become stagnant over time? Are they really viable and do they accomplish their intentions? Pursuing this kind of research can go a long way toward understanding how trends in community "cataloging" are developing and whether new kinds of access are thriving. Rather than dismissing folksonomies, librarians should risk understanding or influencing trends in description within social networking tools.

#### TIME FOR REINVENTION

Today's technologies, scholarly practices, and user behaviors have created new paths and relationships between libraries, scholars, readers, and



publishers. The environment is breeding personal, professional, social, and organizational reinvention and reinvigoration.

Librarians can reinvent themselves and reinvigorate their libraries by assuming more risk and applying risk management strategies. They will have to experiment, shift, adapt, and interact within communities of interest that are quickly emerging, disappearing, and reappearing in new guises all the time. Rather than remain a buying club for traditional scholarly materials, libraries can become vital partners in creating and managing new forms of knowledge such as data, laboratory records, simulations, web sites, and digital arts that are significant components of contemporary scholarship. Librarians can not afford to cede technological support to other professionals, thus losing opportunities to couple knowledge technology with knowledge management and create a powerful foundation for future work.

In sum, to craft a new future while remaining true to the library's mission to find, preserve and make available the many stories of research, cultures, and people's lives and imaginations, librarians are urged to stop dwelling on the risk of experimentation. Instead, they should let go of control and step into unfamiliar territory. They must redefine their work; attempt radical new approaches; and seek new relationships to create exciting, rewarding, and risky services that have the potential to transform the lives of all those who create and seek out knowledge in its many forms. Perhaps then the profession will become the extraordinarily risky business it ought to be.

#### REFERENCE NOTES

- Peter F. Drucker, "The Discipline of Innovation," Harvard Business Review 76 (1998):
- 2. Peter F. Drucker, *Innovation and Entrepreneurship* (New York: Harper Business, 1986), 139-40.
- Karla Hahn, "SERU (Shared Electronic Resource Understanding): Opening Up New Possibilities for Electronic Resource Transactions," *D-Lib Magazine* 13 (November/ December 2007), www.dlib.org/dlib/november07/hahn/11hahn.html (accessed 1 January 2009).
- 4. The original Google libraries are Harvard University, Stanford University, the University of Michigan, the New York Public Library, and Oxford University.
- 5. AAHSL Charting the Future Task Force, Building on Success: Charting the Future of Knowledge Management Within the Academic Health Center (Kansas City, Mo.: Association of Academic Health Sciences Libraries, 2003), www.kumc.edu/archie/bitstream/2271/68/1/Charting\_the\_Future\_viewable.pdf (accessed 1 January 2009); Joseph J. Branin, "Knowledge Management in Academic Libraries: Building the



Knowledge Bank at the Ohio State University," *Journal of Library Administration* 39 (2003) preprint, https://kb.osu.edu/dspace/bitstream/1811/187/1/KBJAL.pdf (accessed 1 January 2009).

- Ann Lally and Carolyn E. Dunford, "Using Wikipedia to Extend Digital Collections," *D-Lib Magazine* 13 (May/June 2007), www.dlib.org/dlib/may07/lally/05lally.html (accessed 1 January 2009).
- 7. "Web Scale' Discovery and Delivery of Library Resources," OCLC, www.oclc.org/worldcat/web/default.htm (accessed 1 January 2009).