

UNEDITED DRAFT – MARCH 9, 2009 – VERSION 0

The initial edited draft is expected to be posted (Version 1) in April 2009. Subsequently, this annotated bibliography will be updated periodically.

America's Libraries for the 21st Century: An Annotated Bibliography An ALA Office for Information Technology Policy (OITP) Program

In pursuing its mission to “conduct research and analysis on the implications of information technology and policy for libraries and to engage in strategic outlook to anticipate technological change in libraries,” the American Library Association’s Office for Information Technology Policy created the *Program on America’s Libraries for the 21st Century*. The Office established a subcommittee of library experts and leaders to explore current predictions and conversations about the future of American libraries.

This annotated bibliography represents a first step in considering the future state of public, academic, school, and other libraries, and exploring the arguments, positions and prognostications of a profession very much engaged in determining its own future. This annotated bibliography was developed primarily for use by the subcommittee and other ALA members and staff working in this program area. Highlights from this annotated bibliography form the basis of OITP Policy Brief No. 2 *Checking Out the Future: Perspectives from the Library Community on Information Technology and 21st-Century Libraries*.

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Given the breadth and depth of library issues and concerns in this country – technological, financial, physical, legal, social, and institutional – it should come as no surprise that the literature concerning libraries' near and distant futures is vast and complex. While it is impossible to divine a particular theme that occurs with any constancy, there is a *condition* that does appear in a majority of discussions on the future of American libraries and it is this: for every prediction, opinion, or concern expressed with significant and credible evidence, there is an opposite position.

For example, in the current literature, arguments are made for and against library as physical space. Some experts suggest that, as use of digital materials continues to increase, bricks-and-mortar libraries will morph into community centers with less square footage devoted to tangible materials. Others insist the library will retain its repository and collection roles, in addition to moving further into cataloging and storing digital information on an even greater scale.

Related to this tension is the debate over future library identities and operating philosophies. A number of library professionals consider the advent and rapid growth of social networking, blogging, and information personalization to be harbingers of a library “space” and collection developed *in collaboration* with users. An individual’s library will be a more personal collection of materials and access, tailored to the user’s own needs and desires. Others make a case for retaining and celebrating a library’s traditional purview – as a place of academic rigor and contemplative study, where physical materials are not (in all cases) abandoned for their digital counterparts.

It is important to understand that thinking about the future of American libraries can and does take the form of any number of smaller or larger discussions: the changing notion of what it means to “read,” and the perceived (by some) reading crisis; the future of the online public access catalog; the changing needs of primary, secondary and college students as well as professional academics; library finances; copyright and other intellectual property issues; scholarly publishing; current and future technologies; the very nature of what it means to “access information.”

This annotated bibliography is an attempt to highlight a number of such discussions currently taking place in library communities as well as society-at-large. While it is difficult to identify any true consensus, it is easy to develop a feel and an appreciation for the complexity, thoughtfulness and passion with which these debates are argued.

A Note on Material Sources and Scope

The author collected entries and materials for this literature review from the following sources: Wilson Web Library Literature, InfoTrac Online, OCLC World Cat and a number of smaller subject databases, including government information, computers and computing sciences, and education journals; online resources including library and library association web sites, web blogs; bibliographical collections of relevant articles and presentations; content provider web sites; futurist and other, non-profit organization web sites; and published book bibliographies.

While the resources consulted for this review cover a broad range of subject areas and industries, it should be noted that much of the material listed here is library-centric in its perspective and provenance. No one, it seems, is as interested in the future of libraries as librarians.

While the author considered materials and sources with a publication date prior to January 1998, the majority of the entries in this review are less than a decade old to ensure that these visions and discussions of the future of libraries are relevant and timely. Older materials are included when deemed appropriate for background or as evidence of particular predictions and subsequent developments in the library world.

This annotated bibliography will be updated periodically. Readers are invited to submit additions or corrections to oitp@alawash.org.

Abbott, Andrew. "Library Research and Its Infrastructure in the Twentieth Century." Windsor Lecture Series, March 12, 2008.

http://mail.alawash.org/exchweb/bin/redir.asp?URL=http://www.lis.uiuc.edu/pubs/catalog/pdfs/windsor_abbott.pdf (accessed July 14, 2008).

Extrapolations about the future of libraries possible from Abbott's examination of computational library research and its limitations. This article addresses the critical element of human participation in academic research.

Abel, David. "Welcome to the Library. Say Goodbye to the Books." The Boston Globe, September 4, 2009.

http://www.boston.com/news/local/massachusetts/articles/2009/09/04/a_library_without_the_books/?page=1.

This article presents the removal of all 20,000 books at a New England prep school in favor of an all-digital library.

Abram, Stephen. "The Future of Reference in Special Libraries is What Information Pros Can Make It..." Information Outlook, October 2007.

http://findarticles.com/p/articles/mi_m0FWE/is_10_11/ai_n27424191/

This article addresses the challenges reference librarians face in meeting current and future information needs. The author suggests that the future is less about advancing technology, and more about working to understand new end-user behaviors as a result of that technology. Abram points out that services once centered in the library should now reside in the user's space and he addresses a number of strategies reference librarians can use to meet the demands of future library service: the information and learning commons, mobile computing, and collaboration.

Abram, Stephen. "Social Libraries: the Librarian 2.0 Phenomenon." Library Resources and Technical Services, v. 52, no. 2 (April 2008), p. 19.

The author shares his thoughts on the future of libraries and librarianship in the context of the emerging importance and impact of Web 2.0 and social computing.

ACRL, "Changing Roles of Academic and Research Libraries," and an expansion of this conversation are available online at www.ala.org/ala/acrl/acrlissues/future/changingroles.htm.

ACRL, Environmental Scan, 2007. "Top Ten Assumptions for the Future of Academic Libraries and Librarians." January 2008. See addendum.

Afifi, Marianne, "Lessons in the Future of Libraries." USC Faculty Forum, v. 2, no. 2, 2001.
<http://www.usc.edu/academe/acsen/resources/newsletter/0001v2n2/0001vol2num2article04.shtml>

"The users of libraries will determine the future of libraries, just as they have done so over centuries. For example, children born in 2001 will be the elementary school children of 2007 and will be the college students of 2019. This population will have grown up on the Internet and with connectivity. They will demand ubiquitous, personalized and speedy access to information. The library of the future must meet all their needs while still meeting the needs of their parents and grandparents. It must also meet the needs of the people of the world who have been less fortunate than we have been, either because of socioeconomic realities, war, corruption, dictatorial governments, or natural disasters."

Akerman, Richard. "Library web services: the future of library catalogs requires remixing, repurposing, and showcasing enhancements." *Library Journal*, v. 132, no. 12, (July 1, 2007), p S6.

Reinventing catalogs and traditional library services within a service-oriented architecture. See also: Library Technology Report "Web Services and the Service-Oriented Architecture" by Marshall Breeding, and Karen Calhoun, OCLC vice president for WorldCat and Metadata Services, "The Changing Nature of the Catalog."

Albanese, Andrew. "At ACRL, a Look to the Very, Very Distant Future." *Library Journal*, v. 134, no. 7, (April 15, 2009).

A report from a program at ACRL's annual conference presented by University of Guelph (Ontario) librarian and CIO, Michael Ridley., where Ridley predicts the end of literacy in the, admittedly, distant future. Ridley's provocative thesis: machine intelligence is superior to human intelligence, thus future advances in areas like biocomputing, brain

research and the “hive mind” will spell the end of the human need to “read, write, manage and organize information.” [Abstract by author.]

Albanese, Andrew. “Research Libraries Face the Future.” *Library Journal*, v. 133, no. 16 (October 1, 2008), p. 16.

A summary of CLIR's report No Brief Candle: Reconceiving Research Libraries for the 21st Century. See full summary under report heading in this document.

Aldrich, Stacey. *Idea Blah Blah* [BLOG] (<http://ideablah.blogspot.com/>).

Stacey Aldrich, currently the State Librarian of California, based in Sacramento. Is an affirmed “futurist” in the library community. She comments on emergent technologies and the intersection with library services and missions. Recent posts include an exploration of new tagging tools (including Semapedia) and open source platforms.

Andrews, Mark. “Changing Markets, Changing Relationships: How Libraries and Vendors Respond to the “Next Generation” Challenge.” *Library Hi Tech*, v. 25, no. 4 (Fall 2007), p. 562.

Abstract excerpt: “Dissatisfaction with the online public access catalog and the integrated library system have prompted a variety of responses from libraries and library automation vendors. The purpose of this paper is to summarize and examine these responses to get some sense of the library automation market's trajectory...Findings suggest this trajectory is towards products other than ‘traditional’ ILS.”

Balas, Janet L. “The Social Ties That Bind.” *Computers in Libraries*, v. 26, no. 2, (February 1, 2006), p. 29.

An early examination of social networking and digital communities in the library setting.

Balas, Janet I. "Will There Be Libraries to Visit in Our Future?" *Computers in Libraries* 22, no. 9 (Oct. 2002): 41-42, 44.

BBC News: “Luminaries Look to the Future Web.” April 30, 2008.
<http://news.bbc.co.uk/2/hi/technology/7373717.stm> (accessed July 14, 2008).

A number of “leading figures in the web community” speculate on the future of the web. Visions include: information brokering capabilities of Web 3.0, increased mobile computing, real time communication, and global connections.

Becker, Charles H. “Student Values and Research: Are Millennials Really Changing the Future of Reference and Research?” *Journal of Library Administration*, v. 49, no. 4 (June 2009).

Abstract: “This article provides perspective on the research habits of Millennials...and discusses the preference for experiential learning across generations and the misnomer of the digital native, while discussing the student as information consumer and the consumer behavior behind library use. The significance of customer service and user education to library use is demonstrated. The future of libraries is discussed to include service barriers and the outlook that the Web is enhancing rather than eliminating the need for libraries.” [Abstract by author.]

Bell, Steven. “No Escaping the Future: From the Bell Tower.” *LibraryJournal.com*, January 28, 2010.
http://www.libraryjournal.com/index.asp?layout=talkbackCommentsFull&talk_back_header_id=6641576&articleid=CA6716777.

Bell, the Associate University Librarian at Temple University, chronicles a number of meetings, articles and online discussions concerning the future of academic libraries and the degree to which these discussions are becoming an obsession for the academic library community. Bell suggests instead of guessing at the future, the profession would be better served by organized environmental scanning and trend watching. “Academic librarians should pay close attention to the financial situation at their institutions as well as admissions patterns, new shifts in the curriculum, hiring trends among the faculty and administrators, and any new planning documents that emerge. Externally, there is a constant need to gather and analyze news and information about higher education developments, demographic change, new socio-cultural trends, and of course, potential disruptive technology.” [Abstract by author.]

Bengston, Jonathan B. "The Birth of the Universal Library: the Open Content Alliance is our opportunity to shape the future of access to information." *Library Journal*, v. 131, no.7, (April 15, 2006), p. S2.

This article provides an overview of the mission and structure of the Open Content Alliance and addresses the OCA's ability to "redefine library services" of the future and, "at the same time, defend traditional library roles that technology cannot and will never supplant."

Bennett, Scott. "The Choice for Learning," *The Journal of Academic Librarianship*, v. 21, no. 1, (January 2006), p. 3.

This article examines the tension between allocating resources and energy to maintaining physical library space and traditional library services (library user as information consumer) versus embracing the challenge of improving delivery of electronic information.

Berinstein, Paula. "The Book as Place: The 'Networked Book' Becomes the New 'In' Destination." *InformationToday.com*, November/December 2006.
<http://www.infotoday.com/searcher/nov06/Berinstein.shtml> (accessed July 21, 2008).

Borgman, Christine. Scholarship in the Digital Age: Information, Infrastructure and the Internet. MIT Press, Cambridge, Massachusetts, 2007.

Borgman asserts that as forms of documents "proliferate" in digital environments, librarian's ideal of total bibliographic control becomes more difficult to achieve. In discussing the importance of continuity of scholarly communication, she writes that while access and preservation of scholarly materials has long been the purview and responsibility of libraries and archives, individual scholars, journals and research teams are beginning to take responsibility for digital objects and information.

Yet, Borgman suggests that libraries are the "most obvious" choice for ensuring continuity of archived digitized information. She notes that projects designed to address this issue are in their infancy and inherently complex, but continuing to grow (OCA, partnerships between libraries and publishers to preserve e-journals). As libraries collect digitized information, other than traditionally published scholarly materials, the institution is legitimizing and thus acquiring a new, "future role" as an arbiter of information in addition to aggregator.

In examining scholarly advances in a number of disciplines, Borgman does address the continuing problem of copyright and intellectual property rights, something not always noted in other materials considering the future of access to information.

Bourg, Chris. *Feral Librarian* [BLOG] (<http://chrisbourg.wordpress.com/>).

Chris Bourg is the Assistant University Librarian for Public Services for the Stanford University Libraries. Library subjects on the blog include topics on the future of libraries and digital services, new ways to think about information and media literacy. Recent post include a counter argument to the “information wants to free” philosophy and a discussion on who should be responsible for reference services in libraries of the future.

Breeding, Marshall. “Looking toward the future of library technology: here are my predictions for what the future may hold for library technology.” *Computers in Libraries*, v. 25, no. 5, (May 2005), p. 39.

Breeding offers five trend forecasts for the near future of libraries:

- *Integrated library systems will become more coherent and separate components will share the same architecture and access points.*
 - *More vendor consolidation resulting in a significant change in the library business landscape and reshuffling of major players.*
 - *A potential marriage of library automation systems with larger “enterprise-level systems” in an effort to improve efficiency.*
 - *“Shared implementation” – this trend is seen in academic and school libraries sharing systems within their larger community as well as emerging library consortia and partnerships.*
 - *Commercial systems will continue to dominate open source options and initiatives.*
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Brindley, Lynne. “Re-defining the Library.” *Library Hi Tech* v. 24, no. 4, (Fall 2006), p. 484.

The article explores the challenges facing libraries in the digital age and considers ways in which they need to reshape and rethink their services and skills to maintain their relevance and contribution. The article provides a review of a wide range of recently published materials (2003-2006) and gives a broad perspective on the challenges facing libraries.

Brantley, Peter. "Architectures for Collaboration: Roles and Expectations for Digital Libraries. *Educause Review*, v. 43, no. 2 (March/April 2008).
<http://connect.educause.edu/Library/EDUCAUSE+Review/ArchitecturesforCollabora/46313> (accessed July 14, 2008).

Brantley challenges traditional assumption about libraries in the present and suggests a series of new "mantras" for the library of the future: including the ideas that "libraries must be available, be designed to get better through use and be portable." Like many authors in this literature review, Brantley sees collaboration as the key component of libraries of the future.

Brown, John Seely. "Growing Up Digital: How the Web Changes Work, Education and the Way People Learn." http://www.johnseelybrown.com/Growing_up_digital.pdf (accessed July 31, 2008).

In this article, Brown examines the advent of new technologies and the ways in which it is fundamentally changing the way the next generations find information and process meaning. These ideas are intrinsically connected to traditional and future library services and much of Brown's focus on social networking, gaming and open source platforms speaks directly to vision of future libraries.

See also: John Seely Brown's web site/blog for additional analysis and publications: <http://www.johnseelybrown.com>.

Brown, William M. "Future-Proof Design." *Library Journal* special section *Library By Design* (Fall 2008), p. 1.

This article addresses the challenges and potential solutions for building library buildings that maintain relevance while meeting 21st century requirements for global climate change, declining operating budgets, and fast-paced technological change. "A future-proof library design," Brown writes, "strives to create places that are lovable, responsive, energy productive, resource effective, disaster resistant and perpetually significant. Future-proof libraries thrive on change."

See also: Miller, Rebecca. "Future-Proof Your Library."

Budd, John. Self-examination: the Present and Future of Librarianship. Greenwood Publishing Group, 2008.

Carlson, Scott. "Young Librarians, Talkin' 'Bout Their Generation." *The Chronicle of Higher Education* v. 54, no. 8, (October 19, 2007).

Interview with young librarians about the future of the library: more user-centered, more multi-media, use of social networking.

Carlson, Scott, "Are Reference Desks Dying Out?" *The Chronicle of Higher Education*, v. 53, no. 33, (April 20, 2007).

Replacing traditional reference desks with social networking software and user-concepts.

Casey, Michael E. and Laura C. Savastinuk. "Library 2.0: Service for the Next-Generation Library." *Library Journal*, v. 131, no. 14, (September 1, 2006).

The writer discusses Library 2.0, a new model for library service that is being discussed online, at conferences, in administrative offices, and at the reference desk. Library 2.0 is a model for library service that encourages constant and purposeful change, inviting user participation in the creation of both the physical and the virtual services they want, supported by consistently evaluating services. The writer examines how Library 2.0 will work for libraries and how libraries can adapt to make the most the model.

Castelli, Donatella. "Digital Libraries of the Future - and the Role of Libraries." *Library Hi Tech*, v. 24, no. 4, (Fall 2006), p. 496.

Chadwell, Faye A. "What's Next for Collection Management and Managers?" *Collection Management*, v. 34, no. 4 (Oct-Dec 2009).

Abstract: "The article discusses the future of libraries in an age when content can often be obtained electronically on demand. It cites purposes such as serving those who cannot or choose not to access materials online, building collections cooperatively, and acquiring electronic books and games and possibly the electronic devices needed to use them. It notes a trend for libraries to obtain Amazon Kindle devices for loaning, and mentions discussion about loaning video game consoles. It notes progress

in interlibrary loans of electronic journal subscriptions. It cites feedback about an article by Aaron Schmidt, digital initiatives librarian at the District of Columbia Public library, saying public libraries should focus on presentations and discussion groups rather than content acquisition.” [Abstract by author.]

Charnigo, Laurie and Paula Barnett-Ellis. “Checking out Facebook.com: the impact of a digital trend on academic libraries.” *Information Technology and Libraries*, v. 26, no. 1, (March 2007), p. 23.

This article reports on a survey of 126 academic librarians concerning their perspectives toward Facebook.com, an online network for students. Findings suggest that librarians are overwhelmingly aware of the “Facebook phenomenon.” Those who are most enthusiastic about the potential of online social networking suggested ideas for using Facebook to promote library services and events. While some librarians were excited about the possibilities of Facebook, the majority surveyed appeared to consider Facebook outside the purview of professional librarianship.

Clemmitt, Marcia. “Reading Crisis? Do Today’s Youth Read Less than Past Generations?” *CQ Researcher*, v. 18, no. 8, (February 22, 2008).

This report addresses the popular concern that literacy rates in American are continuing to decrease endangering the country’s ability to produce “skilled workers for an information-based economy and informed voters crucial to democracy.” The future of libraries and reading is critical in the discussion as many technology experts note that “computers and video may be simply changing the form of literacy needed today.”

Council on Library and Information Resources. “No Brief Candle: Reconceiving Research Libraries for the 21st Century.” August 2008.
<http://www.clir.org/pubs/reports/pub142/contents.html>

Report resulting from a symposium hosted by CLIR to address issues and recommendations for the future of research libraries. The report includes a number of essays from preeminent library scholars (including Paul Courant, Andrew Dillon and Stephen Nichols) addressing collections and preservation, access, co-teaching and collaboration, faculty perceptions, digital technologies and eResearch.

The symposium focused discussion by asking a number of questions: If we could define and design a 21st century library, what would it look like?

What would its core functions or roles be? What academic mission or parts of academic missions would it support? A number of perspectives, rather than consensus, emerged including a greater emphasis on collaboration with a broader group of stakeholders, continued roles in ensuring authentication and persistence of digital information, increased staff distribution and flexibility. Traditional library constraints such as physical space and tangible collections may play a lesser role, mirroring changes in scholarly work and publishing currently underway.

This report includes a number of recommendations concerning the future of research libraries (in addition to those noted above): an immediate research agenda and more experimental projects; clear definitions of “cultural products;” instruction mechanisms based on the way humans currently learn and process information; and new library school curricula based on advancements and changes.

Courant, Paul N. “Scholarship and Academic Libraries (and their kin) in the Age of Google.” First Monday, July 20, 2006.
http://www.firstmonday.org/issues/issue11_8/courant/index.html (accessed May 6, 2008).

In this article, Courant addresses the need for collaboration in maintaining use and relevance of cataloged materials. Noted for its relatedness to other experts suggesting collaboration for future library service models.

Courant, Paul N. “The Future of Libraries.” (video) Available at:
<http://www.ns.umich.edu/podcast/video.php?id=425>. Accessed November 20, 2008.

Short but informative video of the near future of academic libraries (within 10 years) produced by the University of Michigan, narrated by Paul Courant. Courant notes that soon most of UM's library collections will be available from anywhere in the world. Interview with library student highlights the need for librarians to remain relevant and stay educated about new technologies. Courant also highlights UM libraries' instant communication reference services, book printing and the challenge of digitization older materials and related copyright issues.

Courant, Paul N. “The Future of the Library in the Research University.” Background essay for the Council on Library and Information Resources, *Core Functions of the Research Library in the 21st Century* (February 27, 2008).
<http://www.clir.org/activities/registration/08R21.html> (accessed July 14, 2008).

Courant addresses the future of university research libraries in association with the economic principle of a “public good.” He analyzes the economic structure of libraries and scholarly publishing and the changes brought by new emphasis on digital materials. As a result, Courant predicts university libraries will become the creators and stewards of a “collective institution whose job it will be to assure bibliographic integrity of digital scholarly materials,” and thus continue to provide a public good and maintain relevance.

Crawford, Walt. “Futurism and Libraries.” *Online*, v. 33, no. 2 (Mar/Apr 2009).

While Crawford writes that this particular column collects “scattered thoughts on futurism and libraries,” his suggestion that predictions about the future of anything are largely academic has merit. Crawford argues that libraries are often disparate institutions (a public library is not an academic library, etc.) and that to imagine a one-size-fits-all future is futile. Instead, trend analysis in individual library communities can provide a more workable vision of the near future.

Darnton, Robert. “The Library in the New Age.” *The New York Review of Books*, v. 55, no. 10 (June 10, 2008). <http://www.nybooks.com/articles/21514> (accessed July 14, 2008).

Examines the significant limitations of the Google Book Project and defends traditional library missions, offering a rather static vision of the future.

Davidsson, Robert. “Welcome to the E-government Library of the Future – Today.” *Public Management*, v. 90, no. 3, (April 2008), p. 16.

An article examining current advances in providing e-government information to librarians and library patrons in Florida.

Deedy, Maura. “Future of Libraries Summit: A Crossroads of Budget Cuts, Service Demands, and Technology Needs.” *LibraryJournal.com*. April 4, 2009. <http://www.libraryjournal.com/article/CA6648361.html>.

This article reports on a meeting of librarians at the new Darien Library in Connecticut in March 2009 to discuss the current and future challenges facing libraries. The article reviews a number of presentations and discussions as well the meetings findings: that library history “must information future innovation, that new roles are required for libraries

and librarians as user content needs change and the community politics and values must figure in the changing missions of public libraries.”

DegreeTutor Online Education Information, a collection of interviews with librarians and other industry professionals regarding the future of libraries.

(<http://www.degreetutor.com/library/librarians-online>) Interviewees include:

- Jenny Levine, Internet Development Specialist & Strategy Guide at the ALA, also blogger for The Shifted Librarian.
- Michael Stephens, Assistant Professor at Dominican University's Graduate School of Library and Information Science, author of “Web 2.0 & Libraries,” an OCLC article about Librarian 2.0 skills.
- Steven Bell, author, suggests, like several other interviewees, that libraries greatest resources in the 21st century will continue to be people. He suggests dated resources include the traditional reference desk and book warehouse space.
- Chris Zammarelli, a graduate student at the University of Maryland's College of Information Studies, is working on a master's thesis about the potential for using social networking tools on e-government sites. He is also Webmaster for SLA's Government Information Division.
- Paul Pival, Distance Education Librarian at the University of Calgary addresses the question the increasing technologization of libraries (due, in large part, to Web 2.0 technology) versus physical library space: “...*the University of Calgary is currently breaking ground on a new library building, and it has the words "Digital Library" in the title. We are making sure that the new building has a large amount of collaborative space, which does seem to mirror the plethora of social spaces found online these days. We have found that people still do want to be in the library, though that may be due as much or more to the large number of computers available as to the collections that we have.*”
- Eric Lease Morgan, blogs at Tech Essence, LITA and is pursuing the idea of a "next generation" library catalog that is “...*two-fold: 1) it expands its scope to include more than metadata, and 2) it enhances its interface to include services beyond search and display.*”
- Loriene Roy, President of ALA, chiefly addresses marketing for libraries in the 21st century but does offer the opinion, like many of the interviewees, that social networking is the most important technological tools available to libraries and librarians in the 21st century.
- Chad F. Boeninger, Reference & Instruction Technology Coordinator at Ohio and the Business and Economics Bibliographer at Ohio University's Alden Library, addresses Library 2.0: “*I'm not sure if Library 2.0 has necessarily changed the culture in our workplace. I would say that by implementing various technologies, my colleagues demonstrate that there is more to serving patrons than just providing traditional reference services, and there are other ways to communicate than just phone or email. We've got folks communicating via wikis, blogs, and IM, and we've got staff members who are on Facebook and doing pod*

- casts. Our staff is definitely on board with Library 2.0, and they are using it in very cool ways.”*
- Phil Bradley, author of How to Use Web 2.0 in your Library (<http://www.facetpublishing.co.uk/images/bradleyweb2contents.pdf>)
 - Glorianna St. Clair, Dean of Libraries at Carnegie Mellon University, one of four directors of a Universal Library, whose million book project has just scanned 1.4 million books with funding from the National Science Foundation. “*We’re in our second strategic plan on the theme ‘The future of Libraries is digital.’ Carnegie Mellon students are avid consumers of digital information and digital tools. Trying to get students to come back to paper would be futile. Libraries must meet students in their digital environments.*”
 - Laura Solomon, Web Applications Supervisor, Cleveland Public Library, blogs at Library Geek Woes with the tagline: “Documenting the death throes of the American public library.” “*...perhaps, with the advent of the Library 2.0 movement and the help of key leaders of change, libraries can be reborn, this time as something even better.*”
 - Meredith Farkas, Information Wants to Be Free, TechSource, American Libraries, reiterates the importance of marketing to new and existing audiences.

General themes from the interviews: staff is still the most important resource/tool in contemporary libraries. This can be positive (librarians’ abilities to access new technology) or negative (resistance to change).

Social networking will continue to increase in importance and will continue to be instrumental in supporting the nature of libraries as communities. The social networking component mentioned several time in conjunction with e-government and with marketing library services to even wider audiences.

Dempsey, Lorcan. “Libraries and the Long Tail.” D-Lib Magazine, v. 12, no. 4, (April 2006). <http://www.dlib.org/dlib/april06/dempsey/04dempsey.html> (accessed May 6, 2008).

A significant number of conversations/articles have addressed Chris Anderson’s theory of the Long Tail of available digital information and choices. Dempsey notes these and broadens the discussion.

Economist.com: “Nomads at Last.” April 10, 2008.
http://www.economist.com/specialreports/displayStory.cfm?story_id=10950394
(accessed July 14, 2008).

An interview with Andreas Kluth, examining the advent of mobile computing and how it is changing the way humans interact with information and each other.

Erikson, Rolf and Carolyn Markuson. *Designing a School Library Media Center for the Future*. 2nd edition. Chicago, IL: American Library Association Editions, 2007.

Chapters include information and tips for communication and careful program planning, preparing for the development of future technology, analyzing current and future space needs, creating an attractive interior, providing easy accessibility, and creating libraries for school and public services.

“Andy Burnham Launches Debate on the Future of Libraries—putting them at the very heart of communities.” *Europe Intelligence Wire* (October 9, 2008).

News item announcing a “modernization review of England’s public library service” launched by Culture Secretary Andy Bernaham’s office. The review will span six months and produce a report examining key issues facing the public and public libraries as suggesting specific actions to address library relevancy in the future.

Farb, Sharon. “Libraries, Licensing and the Challenge of Stewardship.” *First Monday*, May 12, 2006. http://www.firstmonday.org/issues/issue11_7/farb/index.html (accessed May 6, 2008).

This article explores libraries’ continued responsibility (i.e., in the future) to preserve and maintain access to scholarly materials and the tensions resulting with some academic libraries outsource this responsibility or ignore it all together. This argument goes to the question of what libraries will be responsible for in the future: just access or preservation.

Fessler, Vera. “The Future of Technical Services (It’s Not the Technical Services It Was).” *Library Administration & Management*, v. 21, no. 3, (Summer 2007), p. 139.

Author addresses the future of library technical services, outsourcing and new technologies: “[C]hanges challenge librarians to develop new policies, apply new technologies, develop new competencies, and to take risks for making improvements. Most importantly, libraries find themselves operating in a totally new environment, one where they serve as only one source of information, not the source of information. Finding solutions involving policy changes cannot be outsourced.”

Fialkoff, Francine. "Editorial: The Borders Concept." *LibraryJournal.com*, March 15, 2008. <http://www.libraryjournal.com/article/CA6539333.html> (accessed July 14, 2008).

Fialkoff provides a look at the new Borders Concept Bookstore with offerings similar to many public libraries, but notes that the bottom line continues to profit versus community connection and service.

Fowler, Jason. *NeoArch*. [BLOG] (<http://neoarch.wordpress.com/2008/10/29/the-googlized-future-of-libraries/>).

A blog devoted to libraries, archives and technology. The author, special collections and systems librarian Jason Fowler, posts entries covering library industry news, library science and technology, digitization, reference services and preservation issues.

Frey, Thomas. "The Future of Libraries: Beginning the Great Transformation." The Da Vinci Institute, <http://www.davinciinstitute.com/page.php?ID=120>, publication date unknown, (accessed February 28, 2008).

This article offers "ten key trends that are affecting the development of the next generation library...that have been selected to give clear insight into the rapidly changing technologies and equally fast changing mindset of library patrons."

Frey, Thomas. "Libraries: Thriving in our Information-Rich Environment/Future Libraries: Nerve Center of the Community." The Da Vinci Institute, <http://www.davinciinstitute.com/page.php?ID=609>, January 2009.

Futurist Frey offers a vivid picture of a public library in the year 2029: few printed materials, downloading instead of lending, complex reference and search services, libraries located amidst a number of services and creative spaces. These ideas are then given more significant treatment in a series of short pieces: The Electronic Outpost (satellite community branches), The Search Command Center, The Time Capsule Room (community archive and localized services). This series offers a hopeful prognostication grounded in current library trends.

Gayton, Jeffrey T. "Social or Communal? The Nature and Future of Academic Libraries." *The Journal of Academic Librarianship*, v. 34, no. 1, (January 2008), p. 60.

This study compares these social models with the traditional academic library, whose spirit is best understood as "communal." It argues that this

communal spirit is unique and greatly valued by academic library users. Efforts to create a more social academic library threaten this communal spirit and may do more harm than good.

Gelfand, Julia. "Library as Changing Place: Viewpoints from University Undergraduates." Library Hi Tech News, (May 2005).

"This article aims to demonstrate what undergraduate students consider when they think of the academic library and their personal and academic needs. It also begins to speculate about the library of the future on a growing campus." Abstract excerpt from Emerald Group Publishing.

Gordon, Rachel Singer. Information tomorrow; reflections on technology and the future of public and academic libraries. Information Today, Inc. 2007.

This collection of articles offers a broad and deep examination of a number of subject areas relating to current and future library services, the future of the physical library and traditional librarianship, and the influence and explanation of advancing information technologies. In her summation, Gordon suggests a slightly different point of view than we see from a majority of library futurists:

"...library planning has focused overly much on technology as the driver of change, rather than on the social trends that drive technology adoption. Indeed, much of the recent discussion about Web 2.0 and Library 2.0 applications and services in libraries has focused on the technology itself, rather than on the trends in human behavior in a Web 2.0 world that suggest the type of services libraries might offer."

Grafton, Anthony. "Future Reading: Digitization and its Discontents." The New Yorker, July 1, 2008.
http://www.newyorker.com/reporting/2007/11/05/071105fa_fact_grafton?printable=true (accessed July 14, 2008).

Grafton examines and dismisses the hype surrounding the idea of a digitized universal library. Efforts to digitize (including Google and Microsoft projects) will not result in the suggested "infotopia." Instead, Grafton suggests these efforts will result in "a patchwork of interfaces and databases, some open to anyone with a computer and WiFi, others closed

to those without access or money.” He argues that two simultaneous paths to knowledge will continue to exist for the foreseeable future: the digital road accessible through your laptop, and the physical door that leads to your local library.

Hahn, Trudi Bellardo. “Mass Digitization: Implications for Preserving the Scholarly Record.” *Library Resources & Technical Services*, (January 2008).

Justification for Digitizing Books

Twenty-first-century scholars are increasingly bypassing books - looking for background information in print library collections may slow down the scholar who wants to be productive. Even scholars in the humanities and social sciences are looking to their colleagues in the sciences, modeling their behavior after them because all scholars want to save time and be more productive.

Looking back a few centuries provides a perspective on how the pace of change is forcing us radically and rapidly to rethink our assumptions about scholarship. The transition from an oral to a written culture developed over many centuries. As Bengston said, ‘During this slow evolution, our way of thinking fundamentally changed, from repetitive, oral, memory-based knowledge to visual and spatial memory... We need only reflect on the past few years to sense how quickly and radically the ways that we write and communicate have been and will be altered.’

Harris, Christopher. “For Libraries, the Future is Now.” *School Library Journal*, v. 55, no. 9.

Abstract: “The article discusses changes that are being made to school libraries. Changes that are discussed in the article include libraries not using the Dewey Decimal system (DDC), having digital resources replace librarians and patrons using the Internet to answer complex questions.”
[Abstract by author.]

Hawkins, Donald T. “Seattle Public Library: Keeping the Focus on the Customer.” *Information Today*, v. 25, no. 8 (September 2008), p. 24.

An interview with Andra Addison, communications director for SPL, to discuss the library’s innovations, current and future library services and what steps librarians must take to prepare for the future. Her answers

note the need for libraries and librarians to continue to focus on the user and user needs, not necessarily all technological innovations and advancements that are available.

Hawkins, Donald T. "Web 2.0 and the Future." *Information Today*, v. 24, no. 1, (January 2007), p. 26.

The library and information area is starting to feel the impact of Web 2.0 with its capability to integrate user data into other existing Web sites. Some of Web 2.0's most popular tools are wikis, blogs, folksonomies, mashups, and syndication. These new technologies have raised questions for publishers: Is Web 2.0 a publisher's nightmare? Will they lose control of their businesses?

While many publishers are concerned about Web 2.0 and how it will affect their businesses, Stephen Rhind-Tutt, president of small publisher Alexander Street Press, reported that there is nothing to worry about. No single site can contain all the information a user needs, but hyperlinks are essential because they provide pathways through the data. According to Rhind-Tutt, the Internet is primarily a network, so it is important for publishers to welcome linking to their sites and to keep their sites welcoming to users by designing for different browsers, providing RSS feeds, etc. If Web 2.0 is viewed as the new technology model, we must embrace it quickly. The Web has become a platform, not just an interface for applications. It is important to align our priorities with the Web 2.0 reality and discard what doesn't fit.

Hadro, Josh, ed. "At ACRL, a Look to the Very, Very Distant Future." *Library Journal*, April 15, 2009, p. 17.

Summary of a program presented at ACRL's March 2009 conference that addresses the distant future of reading, learning and libraries. Presenter Michael Ridley (librarian at the University of Guelph, Ontario) described a "post-literate future in which man and machine meld seamlessly together...collaborating in creating 'computer-mediated reality'." Ridley suggests that there is no place for literacy or libraries in the distant future.

Hardy, Lawrence. "The Future of Libraries." *American School Board Journal*, v. 197, no. 1 (Jan 2010).

Abstract: "This article discusses the roles played by media centers and media specialists in helping American students navigate in the Age of Information. It cites the seventh-grade science students of Katie

Zimmerman who sit at terminals and search on the online encyclopedias and databases at the library of the Williamsburg Middle School in Arlington, Virginia. It notes that the Information Age has provided the students with a facility combined with new technology that offers abundant information which are accurate, reliable, and useful.” [Abstract by author.]

Hawkins, Donald T. “What the Future of Publishing Holds.” *Information Today*, v. 24, no. 1, (January 2007), p. 27.

Radical changes are coming, and many long established ideas will fall by the wayside, especially as we look to the year 2020. In fact, we are just starting to feel the impact of some changes, such as Web 2.0. David Worlock, founder of Electronic Publishing Services (EPS), provided a look into the future:

- *Instead of OA, access to information will be automatic, and the idea of anybody "owning" research findings will be strange or wildly funny. The scholarly community will work on subscription and service fees; users will subscribe to the communities in which they work and the software that operates in their environments.*
 - *Copyright will no longer exist because it will be replaced by clickable licenses among communities.*
 - *No journals will exist; trackable information events will take their place. Nothing will be distributed unless it is RSS-enabled; XML will be universal.*
 - *Publishers will have been replaced by value-added service providers (and only a few of them will exist).*
 - *Individuals will have an electronic laboratory notebook (ELN) as their lifelong companion for tracking research, citations, and current awareness; former publishers will provide ELN services.*
 - *No research project will be initiated without an informatics associate (the new role of librarians) on the team.*
 - *We will be in a world of workflow integration, requiring productivity, decision making, and compliance with stricter government regulations regarding ethics.*
 - *The search environment will let us search on "meaning," regardless of language, and A&I will be taken for granted.*
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Hendler, James. “The Untethered Web: advances could give new meaning to the term 'computing environment'.” *Government Computer News*, v. 26, no. 30, (December 10, 2007), p. 34.

Abstract excerpt: “These days, we think of the Web as someplace we access with our computers, but 25 years from now, the Web may be

everywhere, on screens all around us. And it will provide far more personalized information than it does now. Cognitive science professor James Hendler is working to help bring about this information ubiquity.

Hey, Tony. “e-Science and its Implications for the Library Community.”
<http://www.sorjon.org/futurelibrariesmuseums/>. (Accessed July 14, 2008; password protected).

Abstract: the explain the nature of the “e-Science revolution in 21st century scientific research and its consequences for the library community.” Heys findings include the observation that collaboration between librarians and scientists will be key in addressing scientific problems as well as collection of scientific data in both physical and digital repositories.

Hildreth, Susan. “Information Behavior of the Researcher of the Future.” UCL: a Ciber Briefing Paper, January 11, 2008. <http://www.sorjon.org/futurelibrariesmuseums/>. (accessed July 14, 2008; password protected).

Hildreth asserts: the main message of this report for research libraries is that the future is now, not ten years away, and that they have no option but to understand and design systems around the actual behavior of today's virtual scholar.” The author also addresses relevant new behaviors of digital natives: the evolution of traditional reading activity to “power browsing,” and suggests that libraries must focus on creating simpler gateways that are more visible in cyberspace.

Hill, Nate. “Library Outposts: a New Model for Urban Public Libraries.”
<http://natehill.wordpress.com/2008/03/15/library-outposts-a-new-service-model-for-urban-public-libraries/> (accessed April 8, 2008).

A model of the library of the future employing storefront “outposts” offering digital access, wifi, community space, programming and extended service hours, access to the home library's physical collection. This project is, initially, associated with the Brooklyn Public Library System though they are having funding issues.

Holden, John, and Yinnon Ezra, Director of Recreation and Heritage, *Hampshire County Council*. Fact or Fiction: The Future of Libraries.
<http://www3.hants.gov.uk/library/future-libraries.htm>

Summary: purports to examine the two “sides” of library management, those who believe libraries remain largely about books and those who champion a broader view of library aim and services. It seems suspect that there are truly still proponents of libraries as book stock.

Houghton-Jan, Sarah. *Librarian in Black* [BLOG] (<http://librarianinblack.typepad.com/>).

Sarah Houghton-Jan is the Digital Futures Manager at San Jose Public Library, and her site is devoted to future and current library technology services. Recent posts on the site include a report on a presentation by Andrew Keen, “Is the Web a Threat to Our Culture;” new interactive tools for library use (OCLC WorldMap, WebPaint); and information on free software availability.

Houghton-Jan provides reports from a number of relevant forums and conferences in the library and information technology professions.

Info News. “Transition to eBooks Fastest in Research Areas: new survey...” *Information Outlook* (Special Libraries Association), v. 12, no. 10 (October 2008), p. 6.

A look at the rapid adaptation of eBooks in five major academic institutional libraries, from results of a survey conducted by Springer in conjunction with those universities. Article notes that the survey concluded that eBooks are “best suited to specific research and information retrieval purposes.” Article then examines the implications these survey results have for libraries (expense, expansion, convenience).

Institute of Museum and Library Services. “Interconnections: The IMLS National Study on the Use of Libraries, Museums and the Internet.” <http://interconnectionsreport.org/> (accessed March 11, 2008).

Some of the most interesting findings in this report concern the use of the Internet for information-finding and the subsequent increased use of libraries and museums: “Remote online visits to public libraries appear to stimulate more use of museums and public libraries,” and “...the Internet is not replacing in-person visits” to libraries and museums.

Further, this report found that libraries and museums are the most trusted source of information, and that “...Internet use is nearly always rated lower [in trustworthiness] than in-person” library and museum use.

These findings would suggest that the future of bricks-and-mortar libraries and museums are secure for the foreseeable future, as Internet use drives increased in-person use and trustworthiness of the information found there.

Janes, Joseph. "The Right Question: Knowing What to Ask is the First Step in Facing the Future." *American Libraries*, v. 39, no. 8 (September 2008), p. 4.

The author considers the options in thinking about the future of libraries after attending the ULC Foresight 20/20 preconference on the subject at the ALA Annual Conference, 2008. The article is both a summary of the ULC event and the idea that the real question is not about the future of libraries but the future of education and learning processes.

Jaschik, Scott. "Ideas to Shake Up Publishing." *InsideHigherEd.com*, July 26, 2007. <http://www.insidehighered.com/news/2007/07/26/ithaka> (accessed July 31, 2007).

This article explores the findings and implications of a new study on university publishing from Ithaka, a non-profit group that promotes research and strategies for changing technologies in the academic environment. Like many examinations of the near future in academic libraries, the report focuses on collaboration between colleges and the publishing industry to "assume many of the technological and marketing functions that most presses cannot afford." The report findings further suggest "universities be more strategic about the relationship of presses to broader institutional goals."

The full report can be viewed at: <http://www.ithaka.org/strategic-services/university-publishing>, along with additional coverage and analysis.

Johnson, Doug. "Libraries for a Postliterate Society." *MultiMedia & Internet @ Schools*, v. 16, no. 4 (Jul/Aug 2009).

Abstract: "The author reflects on how libraries can serve a postliterate society. He argues that postliteracy is a return to more natural forms of multisensory communication, including storytelling, debate and dramatization. According to the author, the attitudes that professional librarians adopt toward the postliterate may well determine whether libraries continue to exist. He discusses how postliteracy is impacting books and outlines some critical attributes of a library that serves a postliterate clientele." [Abstract by author.]

Joint Information Systems Committee. "Libraries of the Future."
<http://www.jisc.ac.uk/media/documents/publications/lotfbrochure.pdf>.

While this campaign is based in the United Kingdom, the brochure and accompanying links cover a wide range of libraries of the future issues and provides a number of interesting and useful tools. The JISC campaign for the future of UK libraries is designed to increase awareness of library issues and facilitate discussion both inside the profession and in the general population. This document focuses on the findings from a report on eLibraries as well as additional campaign activities including printed resources, podcasts and national events. See also:

Joint Information Systems Committee. "Libraries of the Future." [VIDEO] July 2009.
<http://librariansmatter.com/blog/2009/07/20/jisc-libraries-of-the-future-video/>.

This video report was commissioned as part of the JISC Libraries of the Future campaign in the United Kingdom. It is cited several times as a counterpoint to the decentralization theory of academic libraries. The documentary offers popular themes on the future of libraries—spaces for communal exchange, technology as an enabler and catalyst for change, Google as a "partner"—and suggests that new librarians are breaking old stereotypes and emerging as entrepreneurial and forward-looking.

Kaser, Dick. "ALA '08: the Future of Libraries (Report from the Field). *Information Today*, v. 25, no. 8 (September 2008), p. 29.

A summary of the major themes and events experienced at the American Library Association's Annual Conference in June 2008. The author notes that a number of programs considered the future of libraries and categorizes the mood of the attendees as less than "rosy." Kaser highlights a number of ideas and themes related to the future of libraries: innovation, rebranding, redesigning catalog and reference services.

Kelly, Kevin. "Scan This Book!" *New York Times Magazine*, May 14, 2006.
<http://www.nytimes.com/2006/05/14/magazine/14publishing.html?ex=1305259200&en=c07443d368771bb8ei=5090> (accessed May 8, 2008).

This article provides a plain-language, mainstream overview of the Google Book Project and like initiatives to create a digital library rivaling the oft-referenced library of Alexandria. Kelly addresses a number of related issues: advent and adoption of "liquid" books (linked, fluid e-

books); copyright challenges; competing business models; the nature of searching and creating.

King, R. James. "The Future of the Special Library: In this Librarian's View, the Future Will Be More Digital, More Collaborative." *Information Outlook*, vol. 8, no. 9 (September 2004), p. 10.

http://findarticles.com/p/articles/mi_m0FWE/is_9_8/ai_n7072112/pg_4/?tag=content;col1

Though dated, this article is effective in its examination of a number of specific reference services and how they might look in the future, how librarians might embrace future challenges in providing traditional services: scholarly journals, conference proceedings, corporate knowledge, indexing, etc.

Koehler, Wallace. "Digital Libraries, Digital Containers, "Library Patrons," and Visions of the Future." *The Electronic Library*, v. 22, no. 5 (October 2004), p. 40.

Abstract: the author addresses models of information management, and "examines factors that impact the adoption of digital libraries."

Kolowich, Steve. "Libraries of the Future." *Inside Higher Ed*. September 24, 2009. <http://www.insidehighered.com/news/2009/09/24/libraries>.

Reports on a presentation to university librarians, part of the higher education technology group Ithaka, on sustainable scholarship. Daniel Greenstein, vice provost for academic planning and programs at the University of California System, suggests that the economic downtown means administrators are even more likely to look at dramatically restructuring library operations. As a result, the article summarizes, "the university library will be sparsely staffed, highly decentralized, and have a physical plant consisting of little more than special collections and study areas." [Abstract by author.]

Kroski, Ellyssa. "Libraries to Go: Mobile Tech in Libraries." Presented at NEASIS&T (the New England Chapter of the American Society for Information Science and Technology) Mobile Mania Conference, November 5, 2008.

<http://www.slideshare.net/ellyssa/libraries-to-go-mobile-tech-in-libraries-presentation/>

A slide presentation addressing: how libraries can and are currently using mobile technology, library web sites designed for mobile access, mobile library collections including mobile e-book devices, mobile library

instruction and databases, audio tours, SMS notifications and reference services. The strength of this slide show, available at the address of above, is the wealth of examples Kroski provides in each category.

Kuzyk, Raya. "Reference into the Future." *Library Journal*, v. 132, no. 19, (November 15, 2007), p. 8 (Supplement). Excerpt:

As to what the next decade will bring, there's no short-age of predictions. Casper Grathwohl, VP and publisher of Oxford University Press's reference division, believes that in ten years the Oxford catalog will contain products that are 'more focused on academically validating the growing world of available information rather than adding to it.'

ABC-CLIO CEO Ron Boehm sees content traveling outside the library walls, linked to appropriate courses and developed in collaboration with thousands of scholars worldwide. Gale corporate communications manager Vanessa Birch, too, believes that in the next decade Gale will have closed the gap between the open web and the library. 'End users will find their library through a search engine as easily as they find other information...so that the library will be fully integrated into the online search experience.'

H.W. Wilson president and CEO Harold Regan, meanwhile, foresees WilsonWeb offering more ways for the user to extract and view or listen to specific components of items indexed, whether video, audio, art reproduction, or links to external sites, 'all for a richer search experience not available from free web sites.'

Lankes, David. "Not Done Yet: Charting a New Course for Librarianship." 40th Anniversary Speaker Series. Smithsonian Libraries, Washington, D.C. November 3, 2008. (http://www.sil.si.edu/lectures_40th_Lankes.html).

Lankes discusses the future of libraries, parameters and challenges of the discussion, and the domination of technology as well as introducing his concept of participatory libraries (see following entry) as a framework for the conversation. He notes that participatory librarianship is not the opposite of collection and curation. He suggests libraries of the future should focus on facilitation not access. He addresses the implications of redefining libraries as participatory networks and creating a new library mission: to facilitate the knowledge creation of its community through conversation.

Lankes, David R., Joanne Silverstein and Scott Nicholson. "Participatory Networks: The Library as Conversation." American Library Association Technology Brief, (2007).

Lankes et al create and explore a model of participatory networks for modern librarianship. Based on Conversation Theory, this model focuses library services on the building of knowledge through conversation between individuals and communities. The authors discuss several components of such a potential model for libraries, including social networking, tagging, and group decision-making.

Laun, Christina. "The 25 Most Modern Libraries in the World." BestCollegesOnline.com. <http://www.bestcollegesonline.com/blog/2008/07/02/the-25-most-modern-libraries-in-the-world/>. Accessed December 3, 2008.

Descriptions and summaries of 25 libraries of the future operating now, categorized by architecture, technology and innovation, and digital collections.

Law, Derek. "Academic Digital Libraries of the Future: An Environment Scan." New Review of Academic Librarianship, v. 15, no. 1. April 2009, p. 53-67.

"Abstract: Libraries are attempting to face a future in which almost every fixed point has disappeared. Users are changing; content is changing; research is taking new forms. Indeed the very need for libraries is being questioned in some quarters. This paper explores the nature of the changes and challenges facing higher education libraries and suggests key areas of strength and core activities which should be exploited to secure their future." [Abstract by author.]

Levine, Jenny. *The Shifted Librarian* [BLOG] (<http://theshiftedlibrarian.com/>)

Posts include her visit to the public library of Delft, Holland. She reports on the library's unique, forward-thinking designs as well as several advanced technologies available, including LCD screens mounted for navigation, instructions and announcements, wireless access, and a multimedia creation area for pod- and vidcasting.

Other posts on The Shifted Librarian include gaming in libraries, free, existing technologies available for librarians as well as library patrons, and updates on advancements and new programs at specific libraries across the country.

Levine also provides a useful reading list focusing less on library-specific literature and more on text addressing the future of information, technological advancements, and the new generation of digital natives.

Levy, Steven. "The Future of Reading." *Newsweek*, November 26, 2007.

Lynch, Clifford A. "The Battle to Define the Future of the Book in the Digital World." *First Monday*, May 28, 2001.

http://www.firstmonday.org/issues/issue6_6/lynch/index.html#117 (accessed May 6, 2008).

While slightly dated, this comprehensive article addresses the technologies, challenges, complexities and tensions associated with the growth of e-books and the evolving formats of the "book." Lynch covers issues of preservation, societal changes, access and cultural integrity in the futures of libraries, scholarship and reading.

Maloney, Krisellen, Kristin Antelman, Kenning Arlitsch, and John Butler. "Future Leaders' View on Organizational Culture." *College and Research Libraries*, May 2010. (pre-print available at:

<http://www.ala.org/ala/mgrps/divs/acrl/publications/crljournal/preprints/Maloney-Antelman-Arl.pdf>).

"Abstract: Research libraries will continue to be affected by rapid and transformative changes in information technology and the networked environment for the foreseeable future. The pace and direction of these changes will profoundly challenge libraries and their staffs to respond effectively. This paper presents the results of a survey that was designed to discern the perceptions and preferences of future library leaders related to organizational cultures in these times of precipitous change. The study finds that future leaders of academic libraries perceive a significant gap between their current and preferred organizational cultures, and that current organizational cultures limit their effectiveness." [Abstract by author.]

Maness, Jack M. "Library 2.0 Theory: Web 2.0 and its implications." *Webology*, v. 3, no. 2, www.webology.ir/2006/v3n2/a25.jtml (accessed April 22, 2008).

Abstract excerpt: This article posits a definition and theory for "Library 2.0". It suggests that recent thinking describing the changing Web as "Web 2.0" will have substantial implications for libraries, and recognizes

that while these implications keep very close to the history and mission of libraries, they still necessitate a new paradigm for librarianship. The paper applies the theory and definition to the practice of librarianship, specifically addressing how Web 2.0 technologies such as synchronous messaging and streaming media, blogs, wikis, social networks, tagging, RSS feeds, and mashups might intimate changes in how libraries provide access to their collections and user support for that access.

Markey, Karen. "The Online Library Catalog: Paradise Lost and Paradise Regained?" *D-Lib Magazine*, v. 13, no. 1/2 (accessed February 22, 2008).

Excerpt from author purpose statement: This essay addresses how "the online library catalog fell from grace and why new directions pertaining to cataloging simplification and primary sources will not attract people back to the online catalog. It proposes an alternative direction that has greater likelihood of regaining the online catalog's lofty status and longtime users. Such a direction will require paradigm shifts in library cataloging and in the design and development of online library catalogs that heed catalog users' longtime demands for improvements to the searching experience."

Meyer, Jennifer. "Global Warming's Library Challenge: Immediate Plans and Actions Needed!" *Library Journal*, v. 133, no. 18 (November 1, 2008), p. 26.

This article addresses the concerns global climate change present for libraries of all kinds and suggests some immediate action and long-term plans to preserve library collections and services as well behave responsibly toward the environment.

Mid-Atlantic Library Futures Conference, May 2007, Atlantic City, NJ.
<http://www.palinet.org/futures/malfuturesconference.aspx> (series of presentations from the conference, accessed February 19, 2008). Presentation topics include:

- *Young & Wired: How Today's Young Tech Elite Will Influence the Library* – Mary Madden
 - *Library Space: Is it the Last Frontier in the Digital Age?* – Jeffrey A. Scherer
 - *The Emerging Demographic Future* – James Hughes, Ph.D.
 - *Future Reflections* – Leslie Burger, then-current ALA President
-

*Miller, Rebecca et al. "Future-Proof Your Library." *Library Journal*, v. 133, no. 13 (August 15, 2008), p.

A companion piece to William Brown's article on future-proof library design, Miller and other library innovators address non-architectural aspects of future libraries and library organization. Included are sections on hiring, marketing, technological structure and support, and strategies for creating transparent, user-centered libraries of the future.

Joan Moncrieff, Peter Macauley and Janine Epps. "My Universe is Here: Implications for the Future of Academic Libraries (from the result of a survey of researchers)." *Australian Academic & Research Libraries*, v. 38, no. 2, (June 2007), p. 71.

Abstract excerpt: This paper outlines results of a survey of 23 researchers conducted by Deakin University Library into their information needs and perceptions of the library's role and performance. The study raises key questions about the future roles of libraries and librarians.

Conclusions excerpt: The most important finding of the survey was that many of the librarians' most cherished notions were at odds with the realities of researchers' usage and requirements of the library's collection and services. The findings give support for the redevelopment of libraries from collection stores to flexible spaces, where people can research or meet and exchange ideas.

Murray, Robin. "Library Systems: Synthesize, Specialise, Mobilise." *Ariadne*, v. 48, www.ariadne.ac.uk/issue48/murray/ (accessed February 19, 2008).

"While the ILS will remain a critical component in the management of a library service, its functions will gradually become peripheral to the core of the library service. While the 'new library model' is an evolution of the traditional model, the IT systems required to support it are clearly not evolutionary developments of the ILS. At some point there will be a critical jump in perception as to what is the core system supporting the library. The core of the library system will become an environment that is focused on synthesizing, specialising and mobilising Web services to deliver user-centric services at the point of need."

Natriello, G. Seminar on the Future of Libraries: Progress Report (Working Paper, 2006). Teachers College, Columbia University.
http://edlab.tc.columbia.edu/files/EdLab_Future.pdf

During the 1999-2000 academic year the Teachers College Seminar on the Future of Libraries engaged in a number of activities designed to inform the Seminar members and the broader Teachers College community about the possibilities for libraries in the years ahead. To take stock of our progress thus far members of the seminar were asked to prepare summary comments. This report consolidates those comments and summarizes the work of the seminar.

Needham, George and Joan Frye Williams. Presentation: "The Future of Libraries." http://rurallibraries.org/webcasts/09-23-05/future_of_libraries.pdf (accessed April 8, 2008).

Three dominant patterns of future trends: self-service, disaggregation (deconstructing reference services) and collaboration.

The New Media Consortium and Educause Learning Initiative. "The Horizon Report." The New Media Consortium, 2007. <http://net.educause.edu/ir/library/pdf/CSD4781.pdf> (accessed July 18, 2007).

Most useful in this exploration of near-future technology adoption rates is a section addressing new technologies forecasted in the next four to five years. The report explores the potential in "audience-generated content combined with open-access content models," specifically in the area of academic study and research. Included are several examples: networked books, public digital libraries, online consortia.

Norris, Michele. "The Future of Libraries in the Digital Age." All Things Considered NPR, December 14, 2004. <http://www.npr.org/templates/story/story.php?storyId=4227895>

Norris interviews Carol Brey-Casiano, then-president of the American Library Association, "about the impact of Google's plan to digitize the resources of five major libraries."

Notess, Greg R. "Privacy in the Age of the Social Web." *Online*, v. 33, no. 4 (July/Aug 2009).

This article examines the "challenges and considerations regarding the privacy of information" in the digital age, specifically the responsibilities librarians and teachers have in alerting technology users to privacy issues. The article provides a multi-step process for teaching privacy and understanding its values and limitations.

November, Alan. "Space: the final frontier: a leading tech advocate imagines a media center fit for 21st century learning." *School Library Journal*, v. 53, no. 5, (May 2007), p. 44.

...[O]ver time, we will not need as much shelf space. Particularly in light of limited budgets, we need to balance the decline in print resources with the need for more social spaces. Eventually, much of the physical media center, indeed, the school as a whole, will be more heavily devoted to interaction among students, as well as content creation...It will be the librarian engaging students through personalized instruction, global collaboration opportunities, and creative assignments that will remain absolutely essential.

Oder, Norman. "At Session on the Future of Libraries, a Sense of Urgency." *Library Journal.com*, June 30, 2008. <http://www.libraryjournal.com/article/CA6574501.html>.

Summary of a program on the future of libraries at ALA's Annual Conference 2008. The program highlighted a number of ways libraries are meeting the challenge of staying relevant in the digital age as well as areas where improvement is needed. There was particular emphasis on the idea that there will be more librarians working outside traditional libraries.

O'Gorman, Jack and Barry Trott. "What Will Become of Reference in Academic and Public Libraries?" *Journal of Library Administration*, v. 49, no. 4 (June 2009).

Abstract: "Public and academic libraries continue to have a vital role in providing reference services. As more and more information is only available in electronic form, reference librarians need to reaffirm their core values. Some of the changes happening in reference include smaller reference collections, the disposition of printed reference books, and the increased use of electronic tools. Other topics include different service models for the reference desk, the changing nature of reference questions, and changes in staffing at the reference desk. Finally, the authors speculate about the future of reference services." [Abstract by author.]

Osif, Bonnie A. "W(h)ither Libraries? The Future of Libraries, Part 1." *Library Administration & Management*, v. 22, no. 1, (Winter 2008), p. 49.

This article is a literature review of a number of major articles and publications that both look back at library predictions over the last few

decades and also look forward to the future of libraries, particularly academic, in the 21st century. Osif presents a collection of materials dated from the late 990s to the mid 00s and highlights how these articles might facilitate new and current discussions on the future of libraries and what library professionals should be doing now to ensure continued survival and relevance.

Pace, Andrew K. "Technically Speaking: Is This the Renaissance or the Dark Ages?" *American Libraries*, v. 37, no. 1, (January 2006), p. 77.

Some library prognosticators do see the glass half-empty-a virtual Dark Ages in which the prolific nature of our digital creativity is essentially hidden from future generations or doomed by a lack of good metadata or long-term preservation. I remain optimistic that librarians are the curators of a digital renaissance that has already begun. We are an essential part of, not superfluous to, the digital library of the future.

Page, Benedicte. "Libraries Face Up to the Future..." *The Bookseller*, no. 5330 (May 2, 2008), p. 23.

Report from the 2008 Library and Information Show in Birmingham, England, where "the changing shape of library services was the subject of a lively debate."

Parry, Julie. "Librarians Do Fly: Strategies for Staying Aloft." *Library Management*, Bradford: 2008, v. 29, no. 1/2, p. 41.

The purpose of this paper is to examine past and future predictions about academic libraries and identify the skills that librarians will need to survive in an increasingly digital environment. Various predictions about the future of academic libraries that were made during the 1990s have largely proved accurate. Therefore, this paper presumes that predictions about the skills of academic librarians for the forthcoming decade may prove useful in their recruitment and management. Some visions for the future are drawn together with the aim of defining a set of professional skills.

Peters, Tom. "The Future of Reading." *Library Journal*, v. 134, no. 18, (November 1, 2009).

This article examines the changing form of the book and how it is and will continue to impact the process and activity of reading. Peters suggests

that, while the death of reading is theoretically possible, the ability to read new forms of media and a new variety of ways seems to argue against its ultimate demise. Peters argues that because “books” is the only true, recognizable brand of libraries, libraries and librarians must continue to advocate for books and reading in all their forms.

Pew Internet & American Life Project. “The Future of the Internet III.” December 14, 2008. http://www.pewinternet.org/PPF/r/270/report_display.asp. Accessed January 22, 2009.

This report provides the results of a survey of “internet leaders, activists and analysts” regarding the near future trends (to the year 2020) of internet organization, use and capability. The major finding of this report concludes that mobile devices will be, by 2020, the common device used for connecting to the internet. Further, technology like voice-recognition and touch screens will be prevalent and the architecture of the internet will continue to improve.

The report suggests that there is less agreement among the experts on exactly what this reliance on mobile computing will mean for related issues like intellectual property rights, improved standard of living and evolving human relations.

Pink, Daniel H. “The Book Stops Here.” *Wired*, v. 13,no. 3 (March 2005), p. 124.

Article on the history, creation and philosophy behind Wikipedia.

Rainie, Lee. “How Libraries Can Survive in the New Media Ecosystem.” HELIN Library Consortium Lecture. Bryant University, Smithfield, RI. January 14, 2009. (<http://www.pewinternet.org/Presentations/2009/How-libraries-can-survive-in-the-new-media-ecosystem.aspx>).

Are the reports of libraries’ demise largely exaggerated? Rainie offers somewhat dated evidence that indicate many populations (specifically the young, ages 18-24) have little interest in maintaining libraries as institutions and purveyors of digital literacy. Rainie summarizes that “many Americans would just as soon turn their local libraries into museums and recruit retirees to staff them.” This statement (based on a 1996 Benton Foundation Report) is at direct odds with the most recent findings of library use studies from IMLS and ACRL.

Rainie then establishes the face of the “new media ecosystem” by highlighting advances and changes of the last 8 years and articulates a list

of “action items for libraries of the future”—be findable and be available; define libraries as a “news node for information and intellectual and social interaction; libraries must be “information hubs,” and aggregators, should experiment with Web 2.0 applications, solicit feedback and be responsive, and assume a role of information literacy educator (literacy of all kinds: focus, digital, contextual, graphic and navigational, information credibility, ethical).

Rich, Mokoto. “In Web Age, Library Job Gets Update.” NewYorkTimes.com, February 15, 2009. <http://www.nytimes.com/2009/02/16/books/16libr.html?em>.

Third in a series examining how the Internet and other technologies are changing the way people read and think about literacy. This article addresses the changing skills, abilities and priorities of librarians in the 21st century. While the focus is specifically on school media specialists, the conclusions are applicable to the entire profession.

Rich, Motoko. “Literacy Debate: Online, R U Really Reading?” NewYorkTimes.com, July 27, 2008. <http://www.nytimes.com/2008/07/27/books/27reading.html?em&ex=1217649600&en=a2006cda944f5932&ei=5087%0A> (accessed July 27, 2008).

This article is the first in a series looking at how “the Internet and other technological and social forces are changing the way people read.” As advances in library services focus increasingly on the incorporation of emerging technologies, this examination of the future of reading speaks directly to both traditional library missions and ways in which these fundamental changes in reading will affect libraries’ presence and place in the future.

Rockwood, Irving E. “Scholarly Book Publishing: a Dickensian Perspective.” CHOICE: Current Reviews for Academic Libraries, v. 45, no. 10 (June 2008), p. 1644.

The future of the scholarly publishing industry is discussed in light of developments in the digital or electronic field. The effect on university presses, libraries and traditional publishers is presented.

Rybczynski, Witold. “Borrowed Time: How Do You Build a Public Library in the Age of Google?” Slate, February 27, 2008. <http://www.slate.com/id/2184927/> (access February 27, 2008).

“Ross Dawson, a business consultant who tracks different customs, devices, and institutions on what he calls an Extinction Timeline, predicts that libraries will disappear in 2019. He’s probably right as far as the function of the library as a civic monument, or as a public repository for books, is concerned. On the other hand, in its mutating role as urban hangout, meeting place, and arbiter of information, the public library seems far from spent. This has less to do with the digital world – or the digital word – than with the age-old need for human contact.”

Sanchez, Christina E. “Library Looks to the Future During Budget Cuts.” *The Tennessean*, April 2, 2009.

An excellent example of a library reaching out to its patron base to determine future services and collections. Among the survey’s findings: more e-book and audio book collections, physical and digital formats, virtual reference, book chat and book clubs, and after-school programs.

Saw, Grace, Wai Wai Lui and Fei Yu. “2010: A Library Odyssey.” *Library Management*, Bradford: 2008, v. 29, no. 1/2, p. 51.

The paper aims to provide an overview of how the University of Queensland (UQ) library has prepared itself for the changes and challenges of the future and positioned itself in readiness for some of the forecast mega trends of 2020. This paper reveals the strategies and activities undertaken by an Australian academic library in meeting those future challenges in four major areas: international trends, government and education policies, information and communication technology and new modes of teaching and learning.

Schneider, K.G. *Free Range Librarian* [BLOG] (<http://freerangelibrarian.com/>).

authored by librarian K.G. Schneider covers a wide range of library and technology issues. Schenider has been the Internet Librarian columnist for American Libraries, an ALA Councilor, and runs the PUBLIB public discussion list for public librarians. Recent post subjects include LinkedIn and tagging.

Scrogam, Ron E. “The American Public Library and its Fragile Future.” *New Library World*. London: v. 107, No. 1/2, (2007), p. 7.

The purpose of this paper is to argue that the future of the US public library depends on a commitment to the library as a place within the public sphere for the intellectual development of a community primarily through books and reading, where service to the public is framed by professional librarians...Public libraries continue to be identified as places for reading and books. Despite the public's embrace of the Internet for ready reference, there are still questions best answered through print reference materials and professional assistance. Through active collection development, libraries remain places of heterogeneity and serendipitous discovery.

Selby, B. "Age of Aquarius—The FDLP in the 21st Century." *Government Information Quarterly*, v. 25, no. 1 (January 2008), p. 38.

Reports on the forecasting and planning activities of the FDLP. "During the spring of 2005, the Depository Library Council (DLC), an advisory body to the Public Printer, concluded it was time for depository librarians to play a more active part in envisioning the future of government information. Toward that end, DLC wrote a discussion paper, Knowledge Will Forever Govern: A Vision Statement for Federal Depository Libraries in the 21st Century."

Shuler, John A. "The Revolution Will Not Be Cataloged: Gutenberg's Librarians and the 21st Century." *The Journal of Academic Librarianship*, v. 32, no. 5 (September 2006), p. 540.

"The writer considers the implications for academic libraries of the fluidity of the concept of place in the digital world of the 21st century. Members of the community served by the academy now regard the library as just one of many possible economic and social knowledge tradeoffs available to them, and in some cases, not the most important one. Formerly at the heart of the university, the library has been bypassed, if not replaced, by the abundance of information available through the Internet and Web browsers."

Sidorko, Peter Edward. "Virtually There, Almost: Educational and Informational Possibilities in Virtual Worlds." *Library Management*, v. 30, no. 6/7 (2009).

This article analyzes the educational and library and informational opportunities afforded by presence in virtual worlds like Second Life. Its findings conclude that while there is limited ability to study library presence in virtual worlds, there is opportunity for success. The article

presents issues and problems involved in maintaining such a library presence but notes the potential if these virtual worlds continue to gain popularity.

Smith, Abby. "The Research Library in the 21st Century: Collecting, Preserving, and Making Accessible Resources for Scholarship." Background essay for the Council on Library and Information Resources, *Core Functions of the Research Library in the 21st Century* (February 27, 2008). <http://www.clir.org/activities/registration/08R21.html> (accessed July 14, 2008).

This article examines six trends in the current academic research environment likely to shape the future of academic libraries, including development of digital humanities, new emphasis on mobile and ubiquitous computing, and changes in costs and funding models. Smith predicts academic libraries will continue to be stewards of artifact preservation, but suggests a future where a library will encompass the traditional "functions of library, IT, and scholarly publishing in one."

Starkman, Neal. "The New Librarians...Part Teacher, Part Technologist." *THE Journal: Technological Horizons In Education*, v. 34, no. 8, (August 2007), p. 22.

An article describing the new breed of cutting edge school librarians and school libraries of the future.

Stephens, Michael. "Web 2.0 & Libraries, Part 2: Trends and Technologies." *Library Technology Reports*, v. 43, no. 5 (September/October 2007), p. 32. Chapters include:

- *The Ongoing Web Revolution*
- *Tools from "Web 2.0 & Libraries: Best Practices" Revisited*
- *Technology Trends for a 2.0 World*
- *Resources: Librarians' Reading List 2.0 (Updated and Revisited)*

This publication examines the near-future of libraries, current trends and challenges and offers a hands-on, toll-specific approach to remaining relevant in today's technologically advanced world of information access.

Storey, Colin. "Librarian Interrupted! Ur-librarian to un-librarian, or ur-librarian to uber-librarian?" *Library Management*, v. 30, no. 4/5 (2009).

This paper provides a "general view of the current state-of-play in library management" in contrast to revolutions in response to the proposed future

of the profession. Storey concludes that both irrelevance and preeminence are possible when considering the future of librarians. Storey concentrates on the need for librarians and libraries to “brand themselves” into continued relevance.

Stratigos, Anthea and Roger Strouse. “Library of the Future.” *Online*. Medford: Jan/Feb 2003, v. 27, no. 1, p. 74.

The Library of the Future:

- *The geographic locations of the user and the information are not important. From wherever the users are, they can get to the information, wherever it is.*
 - *The library's charter is access, not ownership. Information is provided "just in time," rather than being collected and owned "just in case."*
 - *Information relevant to a particular user market is integrated and organized, making it accessible at the point of need.*
 - *The information professional's role is one of trusted advisor, consultant, teacher, and facilitator. A "do with" rather than a "do for" philosophy predominates. Users' information literacy becomes paramount. The librarian is a gateway, not a gatekeeper.*
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Sullivan, M. “The Fragile Future of Public Libraries.” *Public Libraries*, v. 42, no. 5 (Sept./Oct. 2003), p. 303. <http://www.ala.org/ala/pla/plapubs/publiclibraries/42n5.pdf> (accessed March 14, 2008).

This article addresses the future of public libraries while examining the threats to libraries' place in the community: the rise of bookstores, a librarian shortage, and the Internet. The author then offers his vision of a library of the future with timely changes and improvements public libraries can make now to ensure their relevance in the future.

Sutter, John D. “The Future of Libraries, With or Without Books.” *CNN.Com*. September 4, 2009. <http://www.cnn.com/2009/TECH/09/04/future.library.technology/>.

This article suggests that the remaining library stereotypes—quiet, dark, solitary places—are dying as libraries work to remain modern and relevant in today's digital society. The author covers dwindling shelf space for printed materials, the push to attract younger generations with “loud room” and new library services, the library as community center model and the shifting roles of librarians as well. The article also briefly addresses continuing trouble with funding for public libraries.

Swope, Christopher. "Revolution in the Stacks." *Governing.com*, June 2008.
<http://www.governing.com/articles/0806libraries.htm> (accessed July 21, 2008).

An article examining the trend of the library as a place to create content, not just access it. The author focuses on catering to teen audiences as a necessity in maintaining library relevance in the future.

Tennant, Roy. "Libraries in a Networked World." 40th Anniversary Speaker Series. Smithsonian Libraries, Washington, D.C. November 3, 2008.
(http://www.sil.si.edu/lectures_40th_Tennant.html).

Tennant begins with look back at a number of significant events in the digital world since 1995, specifically those leading to digitization processes and notes that until now, libraries have been about scarcity of information; making it easier to get this scarce information. It is no longer true that there is only one place to access information (the library). Tennant suggests that the future relevance of the library depends on ubiquity: "We must be everywhere, or we will soon find we are nowhere." Tennant then looks at what libraries must do to achieve this ubiquity like leverage the opportunities of the network and re-engineer infrastructure and reallocate staff.

Tennat also addresses the challenges of mass digitization and the benefits of information diffusion. He suggests, like others, that the library's future lies in effective collaboration.

Urban Libraries Council. "Library Predictions, Anyone?" *News Makers. Information Today*, v. 24, no. 10, (November 2007), p. 23.

*Urban Libraries Council (ULC) program aimed at preparing librarians for the future. Looking 12 years into the future, ULC's **Foresight 2020** will teach librarians how to spot trends and adapt quickly to changes in their respective environments. Joel Garreau, principal at The Garreau Group and a reporter and editor at The Washington Post, will guide the project as ULC's first Virtual Scholar; project aims to build libraries as rapid-learning organizations.*

Foresight 2020 is a moderated online forum that will be finalized by January 2008. The forum will engage all ULC members, from directors and corporations to state associations and new libraries. Among the topics under fire will be public funding, political positioning of public libraries, the public library role in the marketplace, and how public libraries will deal with issues of user privacy and intellectual freedom.

ULC asks two focal questions regarding the Future of Libraries:

- 1. In 2025 (one generation), what is the package of goods, services and values agglomerated in public libraries?*
- 2. In 2025, how will the public library provide value to its community?*

The forum provides a tool for thinking about libraries in 2025 by asking librarians to consider what one question they would ask to an all-knowing entity to aid in their predictions for the future of libraries and the library profession. The resulting questions confirm that the future of libraries cannot be successfully considered in a vacuum. These include questions about the future of

- core community values, political frameworks, even the nature of people's physical and mental health*
- America's place as a global power*
- democracy and the notion of freedom*
- access to information,*
- definitions of concepts like "play," "read," "learn," and "education"*

Another tool the Forum utilizes is a section on challenging traditional assumptions about libraries in an effort to facilitate futurist thinking. Some of the assumptions considered detrimental to divining the future are:

- Library as a physical space*
- Library as a publicly funded facility*
- The nature of a "book"*
- Literacy will always be important*
- Public libraries are a necessity*

In thinking about the future of libraries, the ULC Forum creates a place to establish certainties about the future (in general and of libraries in particular) and identify uncertainties as well. It is interesting to note that there is no consensus in either of these categories, even where one might expect some. For example, a posting under Certainties reads "the Supreme Court will rule on values issues – copyright, privacy, access to gov docs..." Another: "People will have greater need for literacy." As noted above, this cannot be considered a certainty within the library profession much less within a society of the future.

Essentially, this forum is an interesting work in progress in the beginning stages of getting attention and becoming relevant to the library profession. What it already demonstrates, however, is the vast depth and breadth of opinion and experience available to those considering the future of libraries.

Valenza, Joyce Kasman. "Library Media Specialists and the Future: a Conversation with Ken Haycock (Internet use by students and teachers). *Multimedia & Internet@Schools*, v. 13, no. 1 (January/February 2006), p. 11.

Interview style article that examines the current and future trends in information literacy. In looking to the future, Valenza and Haycock explore ways to teach both students and teachers how to be effective searchers and users of information.

Valenza, Joyce Kasman. "Web 2.0 Meets Information Literacy: Make New Friends and Keep the Old." <http://informationfluency.wikispaces.com/21st+Century+Librarians> (accessed July 16, 2008).

Valenza explores the intersection between teaching traditional information skills with new and constantly shifting knowledge processes and products. This article highlights a number of emerging information technologies, access and search strategies, and interactive education sites. The author notes the importance evaluation skills and information ethics will play in the near future. Further, she examines the ways in which Web 2.0 embodies the philosophy of near-future learning and communication.

Waters, John K. "The Kids Are All Right..." Technological Horizons in Education (THE) Journal, vol. 36, no. 3 (March 1, 2009), p. 38.

A summary of the report "Kids' Informal Learning with Digital Media: An Ethnographic Investigation of Innovative Knowledge Cultures," resulting from a \$50 million initiative of the MacArthur Foundation to "expand our understanding of the impact of digital media and communications on how young people will learn in the future." Given the impact young users are currently having on public and school libraries, the findings of this report are unique and important when considering the future of our profession.

Weinberger, David. Everything is Miscellaneous. New York: Times Books, 2007.

Weinberger, David. "The Future of Book Nostalgia." JOHO Newsletter, November 19, 2007. <http://www.hyperorg.com/backissues/joho-nov19-07.html#book> (accessed July 14, 2008).

This piece is a direct rebuttal of Anthony Grafton's piece "Future Reading" in the New Yorker (see above). Weinberger dismisses Grafton's defense of libraries as lacking logic. He asserts that Grafton's characterization of a library user is representative of only a small fraction

of information consumers. Instead, Weinberger points to several trends in information science that alter traditional library missions: aggregation of metadata; digital annotation systems; the advent and growth of electronic book readers.

Weinberger then tackles the question: what happens to libraries? He suggests a “large, well-lit facility that encourages both quiet reading and people interacting about what they’re reading (and viewing and auditing)...Librarians are going to have to manage not just the collections but all the readers’ contributions to them.”

Werle, J., et. Al. “Internet2 and Libraries: Serving Your Communities at the Speed of Light.” *Computers in Libraries*, v. 27, no. 10 (November/December 2007), p. 6.

Addresses the possibilities Internet2 innovations can offer libraries in a quest to remain relevant and provide access to “information and knowledge regardless of format (e.g. print, digital, audio, video, human).

Wooden, Ruth A. “The future of public libraries in an Internet age.” *National Civic Review*, v. 95, no. 4, (Winter 2006), p. 3.

This article summarizes the report and survey, “Long Overdue: A Fresh Look at Public and Leadership Attitudes About Libraries in the 21st Century,” conducted by Public Agenda in 2006. Much like the IMLS report, these findings underscore the continued public trust and interest in public libraries.

Young, Jeffrey R. “Book 2.0.” *The Chronicle of Higher Education*, v. 52, no. 47. <http://www.chronicle.com/free/v52/i47/47a02001.htm> (accessed July 21, 2008).

*These articles address a new experience in electronic publishing using an example from *The Institute for the Future of the Book: McKenzie Wark’s book, GAM3R 7H30RY.**

“Posted on the Web as a draft, this book invites reader comments, some of which Wark intends to incorporate into his final printed version. The idea is to test the hypothesis that feedback and conversations, both at the site and elsewhere, would lead to a better book. Wark, an academic used to leading discussions, has taken an active part, answering questions and responding to readers’ points. Harvard University Press will publish the book in the spring of 2007; the institute will also provide a full online edition.”