An International Prospectus for Library & Information Professionals:
Development, Leadership and Resources for Evolving Patron Needs
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Abstract:
The roles of professionals are changing and evolving to:
   1. accommodate needs of tech-savvy patrons;
   2. thrive in the Commons & Library 2.0;
   3. provide integrated, just-in-time services;
   4. constantly update and enhance technology;
   5. design appropriate library spaces for research and productivity;
   6. adapt to new models of scholarly communication and publication, especially:
      the Open Archives Initiative and digital repositories; and
   7. remain abreast of national and interanational academic and legislative
      initiatives affecting the provision of information services and resources.
Professionals will need to collaborate in:
   1. Formal & informal networks – regional, national, and international; and
   2. Library staff development initiatives – regional, national, international
Professionals will need to use libraries as laboratories for
   ongoing, lifelong training and education of patrons and of all library staff
   („internal patrons“): the library is the framework in which Information Research Literacy is the
   curriculum.
Professionals will need to remain aware of trends and challenges in their regions, the EU,
   the US and North America, of models which might provide inspiration and support:
   1. Top Technology Trends;
   2. New paradigms of professionalism;
   3. Knowledge-creation and knowledge consumption; and
   4. The shifting balance of the physical library with the virtual-digital library.

Change has become a constant in libraries, and the tide of technology innovation rises (and accelerates) without ebb. The culture of change and technology innovation in libraries makes it imperative, that we – library and information professionals – not only accept and embrace change and innovation. It is imperative that we also train and educate ourselves and colleagues to thrive in, guide and lead this culture of change and innovation. In so doing we pass this on to our students, colleagues and patrons as our professional legacy.

For generations scholars and librarians (as well as our students) have developed as sort of „toothpick" (**I**) professionals: deeply educated, trained and developed in a narrow area. We are now realizing that depth (or multiple areas of depth) *and* breadth, multifaceted development, are vitally important. Technology professionals, for example, have conceptualized a **T**-shaped approach to educational development, with the vertical part of the **T** representing traditional science/technology learning, and the crossbar pointing to competencies from non-science/technology disciplines. Likewise Humanists have conceptualized an **H**-shaped approach, where the cross-bar is field-specific knowledge and skills and the vertical bars relate to non-field-specific areas, such as context and community (*College Learning for the New Global Century*, National Leadership Council, ACCU, 2007, p.16). Library and information professionals have begun to realize that we too must break out of the "toothpick" (**I**), silo, segregated mold and diversify. What used to be termed the „generalist", is now termed the „virtualist", „hybrid"

professional, who developes and continues to renew and grow in numerous areas of relative expertise, embracing all media, multiple subject areas, high-touch *and* high-tech as mutually inclusive cultures.

It is vital for library and information professionals to develop attitudes and habits, to engage in activities in order to remain current and capable of re-inventing themselves as the tides of change and innovation continue to rise.

- **Review** the educational, informational and technological environments, e.g., ***The 2003 OCLC Environmental Scan: Pattern Recognition***, was produced for OCLC's worldwide membership to examine the significant issues and trends impacting OCLC, libraries, museums, archives and other allied organizations, both now and in the future. The scan provides a high-level view of the information landscape, intended both to inform and stimulate discussion about future strategic directions. http://www.oclc.org/reports/escan/; and ***The Pew Internet and American Life Project – Education Reports*** - How educators and students exploit and adapt the Internet for their complete educational environment, including administration, teaching, learning, research, and communication. http://www.pewinternet.org/PPF/c/10/topics.asp.
- **Revise** how we view and perform our work based on patron needs: point, level, time, place, format, speed-of-response, etc., move outside limits which history and habit have imposed on us and meet our patrons where they are, as they change and innovate over time.
- **Reform** the structures of our knowledge, skills and abilities, our preferences, habits and „methods of comfort", becoming flexible and adaptable to thrive in the culture of change and innovation.
- **Refresh** our attitudes and preferences, our understanding of patron needs, our knowledge, skills and abilities, much as academics have done through the years with sabbatical leaves; but we must do this „habitually".
- **Transform** ourselves several times in our careers, to remain current, vibrant and vital. „'Intel Corp. Chariman Craig Barrett has said that 90 percent of the products his company delivers on the final day of each year did not exist on the first day of the same year. To succeed in that kind of marketplace, ...[library and information professionals must be]...flexible, knowledgeable, and scientifically and mathematically literate"' (*College Learning for the New Global Century*, p.16). It is likely that college graduates will change jobs 10 times in the 20 years following graduation.

This international prospectus of selected professional issues, tools and resources provides opportunities for library and information professionals to educate and train themselves as lifelong learners. The library and information culture changes and evolves, and we need to embrace the changes and apply our intelligent energies to benefit ourselves and our patrons.

The roles of library professionals are changing and evolving in numerous areas.
<u>Accommodation</u> of tech-savvy patrons (the Net Generation, Neo-Millennials, Digital Natives), cf. ***Educating the Net Generation***, Oblinger & Oblinger, eds., EDUCAUSE, 2005, http://www.educause.edu/educatingthenetgen; ***OCLC White Paper on the Information Habits of College Students***, http://www.oclc.org/research/announcements/2002-06-24.htm.
<u>Preparation</u> to provide the full range of integrated services described as the **Commons** (cf. http://library.uncc.edu/infocommons/conference/neworleans2006/; http://jhenning.law.uvic.ca/; http://faculty.rwu.edu/smcmullen/; ***The Information Commons Handbook,*** Donald Beagle with DR Bailey and B. Gunter) or **Library 2.0** http://www.libraryjournal.com/article/CA6365200.html, and adapt to **The Long Tail Phenomenon** http://en.wikipedia.org/wiki/Long_tail, http://www.wired.com/wired/archive/12.10/tail.html

Emphasis more on integrated, collaborative, just-in-time approaches (whereas the history of libraries has emphasized just-in-case collections and services).

Enhanced competencies ever in flux – the need to onstantly update, upgrade and enhance our technology savvy and competencies.

The NextGen Librarian's Survival Guide by Rachel Singer Gordon
http://www.lisjobs.com/nextgen/.

The "hybrid" (http://www.ala.org/ala/acrl/acrlevents/allen05.pdf), *the "blended"* (http://blendedlibrarian.org/), *and the "shifted* http://www.theshiftedlibrarian.com/archives/2006/04/11/a_liminal_followup.html *Librarian*.

Technology Competencies and Training for Libraries by Sarah Houghton-Jan Library Technology Reports 43:2 (Mar/Apr 2007)

The Association of Southeastern Research Libraries (ASERL) Shaping The Future: ASERL's Competencies For Research Librarians, 2000 http://www.aserl.org/. Competencies: Attributes of the successful research librarian include intellectual curiosity, flexibility, adaptability, persistence, and the ability to be enterprising. Research librarians possess excellent communication skills. They are committed to life-long learning and personal career development.
1. The research librarian develops and manages effective services that meet user needs and support the research library's mission.

- Provides excellent service, customized to meet the needs of individual users
- Is knowledgeable about technology (theoretical and skills-based) and applies it to improve services
- Anticipates user needs and critically evaluates and assesses existing and new services and systems to ensure that user needs are met
- Is innovative, seeking out and acting upon new opportunities and challenges
- Plans, prioritizes and organizes work in order to focus on what is critical
- Participates in and applies strategic planning
- Is able to adapt business approaches to library operations to ensure accountability and the wise use of limited resources
- Communicates effectively with others outside of the library

2. The research librarian supports cooperation and collaboration to enhance service.

- Is able to work effectively with diverse groups, creating an environment of mutual respect
- Forms and maintains partnerships both within and outside of the university community
- Seeks opportunities to share expertise and knowledge
- Works effectively as part of a team
- Provides leadership

3. The research librarian understands the library within the context of higher education (its purpose and goals) and the needs of students, faculty, and researchers.

- Understands teaching, learning, and research, and seeks to provide services that will enhance these endeavors
- Is able to help users learn
- Is an advocate for the library and the university
- Is able to communicate the importance of library services to the higher education community
- Serves as an effective member of the university
- Is an expert consultant to the university on information
- Participates in and supports fund-raising efforts on behalf of the university

4. The research librarian knows the structure, organization, creation, management, dissemination, use, and preservation of information resources, new and existing, in all formats.

- Often has specialized subject knowledge to support collection development within the library and research and teaching within the university
- Understands how information and the research library support and enhance scholarly communication

- Understands the implications of information policy, including laws regarding copyright, licensing, and intellectual property
- Is able to critically evaluate and assess existing and new information resources in relation to user needs
- Describes and translates intellectual resources in a way that is useful to others

5. The research librarian demonstrates commitment to the values and principles of librarianship.
- Connects people to ideas
- Provides free and open access to information
- Demonstrates commitment to literacy and learning
- Shows respect for individuality and diversity
- Supports freedom for all people to form, hold, and express their own beliefs
- Preserves the human record
- Provides excellence in service
- Forms partnerships to advance these values

Ongoing accommodtions as patrons' needs and preferences evolve more toward electronic/ digital/ virtual resources than paper resources, and patrons need our guidance and leadership to use these resources to maximal effectiveness in their research.

Top Tech Trends (Library & Information Technology Association – LITA) 1999-2007 - At each ALA MidWinter Conference, a group of LITA leaders, who are acknowledged for their reputations and expertise in the library and information technology fields, meets to hammer out what they believe to be top technology trends librarians should be watching. http://www.ala.org/ala/lita/litaresources/toptechtrends/toptechnology.cfm

Technology Innovation in Libraries - In February, 2007, an invitation to an informal survey of "Nine Questions on Technology Innovation in Academic Libraries" was posted to several listservs. The following is a brief summary of the informal survey results with links to more complete information:
*Recent technology innovations in the library included blogs, wikis, RSS feeds, IM reference, and digitization projects.
*The driving force behind technology innovation is student needs, followed by an Information Technology Chief or Dean with vision, and the initiative of individuals.
*The biggest obstacle to tech. innovation in libraries is lack of money, staff, and time, with an unsupportive administration cited as one of the top four obstacles.
*The Library's approach and the Library staff's approach to technology innovation were both overwhelmingly described as "cautious but willing," though the staff were more often described as "resistant and blocking" than the Library itself.
*Faculty and librarians were most cited as the introducers of "disruptive" technology on campus, followed closely by students.
*The most "disruptive" technology for academic libraries today is "Web 2.0" or Social Computing technologies with Google/Google Scholar coming up second.
http://www.njla.org/njacrl/ModelsTechInnov.doc
http://www.njla.org/njacrl/ACRL07TechInnovYesResults.doc
http://www.njla.org/njacrl/ACRL07TechInnovNoResults.doc
http://www.njla.org/njacrl/ACRLTechInnovSurveyResults.doc

ICT Literacy, The Essential Digital Literacy Skills for the 21st Century Global Citizen
The ICT Literacy Portal is the "public face" of a fast growing international movement focused on promoting Information and Communication Technologies (ICT) Digital Literacy. This website provides a rich global resource and collaborative environment for dissemination of ICT Literacy materials, interactive discussions, research information, and international dialogue. Building an international consensus on the definition and importance of ICT Literacy is critical for advancing meaningful educational initiatives, training high skilled workforce, and understanding issues related to economic development. The ICT Literacy Portal has developed into a centralized repository of ICT Literacy resources that highlights innovative efforts and partnerships promoting ICT Literacy, and facilitates the interaction between researchers, business, government and educational segments. http://www.ictliteracy.info/

Design of appropriate spaces, where the „library as warehouse/museum" evolves into the *Library Commons*, the dynamic, interactive center for contemplation, research and productivity, cf. *The Information Commons Handbook*, Donald Beagle (D. Russell Bailey, Barbara Tierney, 2006), *Learning Spaces*, Oblinger, ed., EDUCAUSE, 2006, http://www.educause.edu/learningspaces; http://library.uncc.edu/infocommons/conference/neworleans2006/; http://jhenning.law.uvic.ca/; http://faculty.rwu.edu/smcmullen/.

Adaptation to new models of scholarly communication and publication, especially, the Open Archives Initiative OAI:

> *Providence College's Digital Institutional Repository*, *The Digital Commons*
> http://digitalcommons.providence.edu
>
> *The Case for Institutional Repositories: A SPARC Position Paper*
> http://www.arl.org/sparc/IR/ir.html - **"…**Defined for our purposes then, an institutional repository is a digital archive of the intellectual product created by the faculty, research staff, and students of an institution and accessible to end users both within and outside of the institution, with few if any barriers to access. In other words, the content of an institutional repository is: 1) Institutionally defined; 2) scholarly; 3) Cumulative and perpetual; and 4) Open and interoperable**…"**
> **"…**digital collections…capturing, preserving, and disseminating a university's collective intellectual capital, serve as meaningful indicators of an institution's academic quality…This content may include pre-prints and other works-in-progress, peer-reviewed articles [post-prints], monographs, enduring teaching materials, data sets and other ancillary research material, conference papers, electronic theses and dissertations, and gray literature…"
> **"…**libraries-as their logical administrative proponents…"
> "…an institutional repository may complement or compete with the role served by the university archives. University archives often serve two purposes: 1) to manage administrative records to satisfy legally mandated retention requirements, and 2) to preserve materials pertaining to the institution's history and to the activities and achievements of its officers, faculty, staff, students, and alumni…"
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> *SPARC – The Scholarly Publishing and Academic Resources Coalition*
> http://www.arl.org/sparc/ - "SPARC®, the Scholarly Publishing and Academic Resources Coalition, is an alliance of academic and research libraries and organizations working to correct market dysfunctions in the scholarly publishing system."
>
> *Institute on Scholarly Communication* http://www.arl.org/sc/institute/index.shtml;
>
> *SHERPA: Securing a Hybrid Environment for Research Preservation and Access - UK*
> http://www.sherpa.ac.uk/romeo.php - "SHERPA is investigating issues in the future of scholarly communication. It is developing open-access institutional repositories in a number of research universities to facilitate the rapid and efficient worldwide dissemination of research."
>
> *RoMEO Project (Rights MEtadata for Open Archiving) – UK*
> http://www.lboro.ac.uk/departments/ls/disresearch/romeo/ **-** "The RoMEO Project (Rights MEtadata for Open archiving) is funded by the Joint Information Systems Committee … to investigate the rights issues surrounding the 'self-archiving' of research in the UK academic community under the Open Archive Initiative's Protocol for Metadata Harvesting."
>
> *OAIster – Open Archives Initiative Harvester* **-** http://oaister.umdl.umich.edu/o/oaister/ **-**
> "OAIster is a project of the University of Michigan Digital Library Production Service. Our goal is to create a collection of freely available, previously difficult-to-access, academically-oriented digital resources that are easily searchable by anyone."
>
> *DOAJ – Directory of Open Access Journals – U. Lund, Sweden (2643 open access journals)*
> **http://www.doaj.org/** **- "**Categorized, searchable links to free, full text, quality controlled scientific and scholarly journals. We aim to cover all subjects and languages. There are now 2643 journals in the directory. Currently 795 journals are searchable at article level, **131113**+ articles are included in the DOAJ service."
>
> *Open Access Archiving -* building research capacity in developing countries - www.scidev.net/ms/openaccess
>
> *Demonstration EPrints Archive* - http://demoprints.eprints.org/
>
> *OA Physics/Mathematics Archive -* http://arxiv.org/

Southampton's Worldwide Registry of Institutional Open Access Archives -
http://archives.eprints.org/eprints.php?action=browse
PubMed Central - http://www.pubmedcentral.nih.gov/.
PLoS – Public Library of Science – open access journals **http://www.plos.org/** - *PLoS Biology, PLoS Medicine, PLoS Computational Biology, PLoS Genetics, PLoS Pathogens, PLoS Clinical Trials*
Science.gov - **http://www.science.gov**

Remaining abreast of national and international academic and legislative initiatives, which have a strong impact on the provision of information services and resoureces, e.g.,

The 2005 Dutch Academic Initiative
http://www.theregister.co.uk/2005/05/11/open_access_research/;
The 2005 Berlin Declaration on Open Access
http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html;
Federal Research Public Access Act (USA)
http://www.earlham.edu/~peters/fos/newsletter/05-02-06.htm;
CURES (USA) http://www.arl.org/sparc/pubs/enews/dec05.html#3;
The European Digital Library (EU) –
http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/06/311&format=HTML&aged=0&language=EN&guiLanguage=en;
SHERPA/Securing a Hybrid Environment for Research Preservation and Access (UK) see above;
SPARC/Scholarly Publishing and Academic Resources Coalition - see above;
RoMEO Project/Rights MEtadata for Open Archiving (UK) see above;
OAIster/Open Archives Initiative Harvester (USA) see above;
DOAJ/Directory of Open Access Journals (Sweden) see above;
Registry of Institutional Open Access Archives (Southampton, UK) see above;
Open J-Gate Portal (India) www.openj-gate.com ;
PLoS/Public Library of Science (USA) see above;
Self-Archiving - WIKI on Self-Archiving and OA
http://selfarchive.org/index.php/Main_Page
PubMed Central (USA), etc., see above;
Google Book Search – Search the full text of books to find ones that interest you and learn where to buy or borrow them;
http://books.google.com/bkshp?ie=UTF-8&oe=UTF-8&hl=en&tab=wp&q=;
Google Scholar – Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: peer-reviewed papers, theses, books, abstracts and articles, from academic publishers, professional societies, preprint repositories, universities and other scholarly organizations. Google Scholar helps you identify the most relevant research across the world of scholarly research
http://scholar.google.com/schhp?ie=UTF-8&oe=UTF-8&hl=en&tab=ws&q=;
Sun SITE*'s* (***Sun*** Microsystems-funded ***Software Information and Technology Exchange***) can be found at: http://sunsite.cs.msu.su/sunsites/ or
http://de.sun.com/solutions/industries/edu/programs/sunsite/index.html

1. Librarians' Internet Index: http://lii.org
Librarians' Internet Index (LII) is a publicly-funded Website and weekly newsletter serving California, Washington state, the nation, and the world. Every Thursday morning they send out a free newsletter, *New This Week*, which features dozens of high-quality Websites carefully selected, described, and organized by a team of librarians. Topics include current events and issues, holidays and seasons, helpful tools for information users, human interest, and more. One can subscribe to the newsletter by e-mail or RSS, or read it on the Web. There are close to 40,000 subscribers, many from the funding states of California and Washington. One can also search and browse the Website for the best of the Web. There are over 20,000 entries, also maintained by librarians and organized into 14 main topics and nearly 300 related topics. There are featured

collections, which have ranged from The Grapes of Web (a companion to the 2002 California statewide Steinbeck reading program) to such topics as taxes, elections, and September 11.

2. The Berkeley Digital Library SunSITE builds digital collections and services while providing information and support to digital library developers worldwide.

Catalogs & Indexes:

The American Heritage Project - A shared database of SGML-encoded finding aids describing and providing access to collections documenting American history and culture.

Bibliographies - SunSITE-hosted bibliographies, inaugurated with one on African American Theses and Dissertations, University of California Berkeley.

PhiloBiblon - A database of the printed and manuscript sources for the study of medieval Iberian culture. Includes separate bibliographies for medieval Spanish, Catalan, Portuguese, and Galician-Portuguese texts.

Social Science & Government Data Library - Census data and more, available for browsing and searching.

The South Asian Diaspora Database - A database to facilitate networking among people interested in the South Asian Diaspora sponsored by the South/Southeast Asia Library at the University of California, Berkeley.

Digital Collections:

The American Heritage Project - A shared database of SGML-encoded finding aids describing and providing access to collections documenting American history and culture.

Anthropology Emeritus Lecture Series: UC Berkeley - Biographical and bibliographical selections featuring UC Berkeley Anthropology Faculty who have been chosen for the Annual Emeritus Lecture Award.

Catalonian Manuscripts - A small collection of manuscripts from the Bancroft Library, University of California, Berkeley.

Days of Cal - A virtual tour through the history of the University of California, Berkeley.

Emma Goldman Papers - Selected documents and photographs relating to Emma Goldman's life and work as well as indexes to thousands of other documents and photographs available in collections around the world.

Gay Bears: The Hidden History of the Berkeley Campus - A web site dedicated to exploring the lesbian, gay, bisexual and transgender history of Cal.

Historic Topographic Maps of California - A map resource that provides access to the U.S. Geological Survey's topographic quadrangles, both 15 and 7.5-minute, spanning more than 100 years of mapping (1885-1999).

Incunabula Database - A searchable database of the Incunabula Collection of The Bancroft Library.

Literature @ SunSITE - A collection of literature, largely U.S. authors at the moment.

Making PCR (Polymerase Chain Reaction) - A collection of documents relating to the history of the discovery of the polymerase chain reaction (PCR). This site is part of the Science & Technology In the Making project.

Mapping the Icelandic Genome - An Anthropological Forum regarding the scientific, political, economic, religious, and ethical issues surrounding the deCode Project and its global implications. Jointly organized by the Anthropology Department at the University of California at Berkeley and the Institute of Anthropology at the University of Iceland.

NCSTRL: Networked Computer Science Technical Reports Library - An international, distributed collection of computer science technical reports, including reports from UC Berkeley's Computer Science Division.

Social Science & Government Data Library - Data from the U.S. 1990 Census of Population and Housing.

UC History Digital Archives - Provides access to a growing collection of digitized historical documents, images and materials, along with past and current analysis on the history of the UC.

http://sunsite.berkeley.edu/

3. Educator's Reference Desk builds on over a quarter century of experience providing high-quality resources and services to the education community. From the Information Institute of Syracuse, the people who created AskERIC, the Gateway to Educational Materials, and the Virtual Reference Desk, the Educator's Reference Desk brings you the resources you have come to depend

on. 2,000+ lesson plans, 3,000+ links to online education information, and 200+ question archive responses.
http://www.eduref.org/

4. ibiblio.org is home to one of the largest "collections of collections" on the Internet, *ibiblio.org* is a conservancy of freely available information, including software, music, literature, art, history, science, politics, and cultural studies. *ibiblio.org* is a collaboration of the Center for the Public Domain and the University of North Carolina at Chapel Hill.
http://www.ibiblio.org/

5. Queen's University Sun SITE is a Sun Microsystems sponsored program at key educational and research institutions around the world, created to promote the growth and reach of the Internet. The program was established with the following four goals in mind:

- Develop new and better tools for Internet access;
- Have a large repository of public domain software;
- Archive information of general interest including government documents;
- Provide content based on local geography.

The Queen's SunSITE is a joint initiative of Queen's University and Sun Microsystems. The aim of the Queen's SunSITE is experimentation and sharing of results in distance education.
http://sunsite.queensu.ca/

6. SunSITE RedIRIS is a service provided by the Spanish National Research Network. In this site you can find information about RedIRIS and Sun Microsystems, as well as public domain software and information.
http://sunsite.rediris.es/index.en.html

7. Sun SITE Central Europe http://sunsite.informatik.rwth-aachen.de/suninfo.html
Communities: Afghan Community Information System (ACIS). ACIS is developed as a community information system for cultural heritage management in Afghanistan. Based on an MS Access database developed by Department of Urban History at RWTH Aachen University, ACIS employs open web architecture and standards and Oracle technologies to present its diverse user communities a GIS-based multimedia community system integrating the existing data migrated from the Access database. http://monet.informatik.rwth-aachen.de:7000/ACIS

8. Bamyian The community aims at bringing together experts from diverse disciplines in the area of preservation of the Bamiyan site in Afghanistan. It attempts to bridge the gaps between different generations, disciplines and cultures on a global scale. This community portal provides professionals a platform to share knowledge, to promote international, intergenerational, interdisciplinary and intercultural cooperation, and to take up the challenges in Bamiyan preservation together. Here, related news and events, participating research groups, potential partners, expertise activities are shared within the community to contribute to the recovery of the Bamiyan site.
http://www.bamiyan-development.org/

9. Cairo University E-Learning Centre (CUELC) The main aim of the Cairo University E-Learning Centre is to bridge the currently existing gap between the advanced, technology enhanced teaching and learning methods in Europe and Egypt. These advanced teaching methods should enhance the Cairo University teaching staff skills, provide better feedback facilities on students' performance, and afford continuous fruitful monitoring. Moreover, the WBT environment allows interaction between students and makes student-student and student-teacher synchronous and asynchronous communication possible. Offering learning on demand, and life long learning possibilities to everybody is also an advanced goal of the centre. Besides, there are plans to use the proposed E-Learning centre with the already existing one in Aachen University of Technology to design an intercultural virtual campus, thus bringing together students from different cultures and giving them the opportunity to exchange their experiences in the area of technology enhanced learning.
http://www.cuelc.eu/

10. GRAECULUS The cultural sciences portal (inclusively the cultural science database MAVIS) (mainly in German) http://www.graeculus.de/

11. PROLEARN Academy The PROLEARN Academy transfers the research results into education and training programmes, international conferences, and scientific journals designed to federate and showcase European leadership in the field of Technology Enhanced Learning.
The aim of the academy is to:

- continuously educate, train and network world-class graduate and postgraduate researchers or junior faculty to maintain leadership at the PEOPLE level;
- offer a forum for publication, debate and envisionment in order to maintain European leadership in topics across the full range of research issues in Technology Enhanced Learning covered by PROLEARN working groups;
- implement a technology infrastructure to support a pan-European virtual community of researchers and training measures in the area of Technology Enhanced Learning.

http://www.prolearn-academy.org/

12. SunSITE Austria - at the University of Vienna. This site is mostly devoted to Computer Support for Mathematics, Statistics & Science Education but also offers information and software for more general areas. http://sunsite.univie.ac.at/

Professionals will need to consort and collaborate to synergize and maximize resources. Formal & informal networks, regional, national, and international.

OCLC Global Locations – www.oclc.org
1. OCLC Asia Pacific, based in Dublin, Ohio, provides products and services to libraries in the Asia and the Pacific region with the assistance of local distributors.
2. OCLC Canada, in Chambly, Quebec, Ottawa, Ontario, Calgary, Alberta and Winnipeg, Manitoba has served Canadian librarians since 1997.
3. OCLC Mexico, in Mexico City, was established in 2002 to serve libraries in Mexico.
4. OCLC Latin America and the Caribbean, based in Dublin, Ohio, has served Mexico and all countries in the Caribbean, Central America, and South America since January 1995.
5. OCLC PICA is a new organization created from the previous organizations: OCLC Europe, the Middle East & Africa and Pica. The new organization is membership-based and will jointly market and support the products of OCLC and the existing Pica products.

The International Coalition of Library Consortia (ICOLC)
http://www.library.yale.edu/consortia/ first met informally as the Consortium of Consortia (COC) in 1997. The Coalition continues to be an informal, self-organized group comprising (as of September 2000) nearly 150 library consortia from around the world. The Coalition serves primarily higher education institutions by facilitating discussion among consortia on issues of common interest. At times during the year, ICOLC may conduct meetings dedicated to keeping participating consortia informed about new electronic information resources, pricing practices of electronic providers and vendors, and other issues of importance to directors and governing boards of consortia. During these sessions, the Coalition meets with members of the information provider community, providing a forum for them to discuss their offerings and to engage in dialog with consortial leaders about issues of mutual concern. Examples of consortia:
1. Denmark's Electronic Research Library (DEFF) is an organisational and technological partnership between research libraries co-financed by the Ministry of Science, Technology and Innovation, the Ministry of Culture and the Ministry of Education. DEFF's purpose is to advance the development of a network of electronic research libraries that make available their electronic and other information resources to the patrons in a coherent and simple way. This is obtained partly through government funding and partly by joint purchase of licenses. The Danish National Library Authority runs the secretariat of the partnership.
http://www.deff.dk/ - http://www.deff.dk/default.aspx?lang=english
Journal search - http://www10.tdnet.com/frames.asp
Journal of Anaesthesiology Clinical Pharmacology (AMI) From DOAJ – Directory of Open Access Journals – 2002- http://www.joacp.org/
2. Ligue des Bibliothèques Européennes de Recherche (LIBER) is the principal association of the major research libraries of Europe and represents and promotes the interests of research libraries of Europe. The overall aim is to assist research libraries in Europe to support a functional network across national boundaries in order to ensure the preservation of the European cultural

heritage, to improve access to collections in European research libraries, and to provide more efficient information services in Europe.

The mission of LIBER is fairly predictable: to represent (to policymakers) and promote (to any interested party) the interests of research libraries in Europe. The aims of libraries have always transcended national boundaries, and LIBER exists to provide a working network - of people and systems - across the continent. LIBER identifies areas of library operations where cooperative efforts can lead to benefits. The resulting cooperation may be between the members themselves or may include collaboration with other bodies. A classic case for cooperation lies in the sharing of expertise. This is not only professionally rewarding for the staff concerned - it also helps to avoid duplication of effort and assists in the widespread adoption of best practice.
http://www2.kb.dk/liber/

3. Poznan Foundation of Scientific Libraries was created in 1996 on the initiative of the Rectors of state universities and colleges of Poznan. Today, the network of Poznan university libraries uses over 450 workstations and serves the needs of about 90,000 readers. Library databases (each of the ten libraries has its own database) are installed on two servers operated by the Poznan Supercomputer and Network Center. One of the Foundation's responsibilities is to provide technical support for the library system. The foundation organizes training courses for librarians operating the system and regularly issues manuals helpful in using the system. Since 1999 the Foundation has coordinated on a national scale the activities of a consortium of libraries taking advantage of electronic journals made available under EIFL program. In 2001, on the initiative of the Poznan academic community, the Foundation commenced work on the Wielkopolska Digital Library. http://www.pfsl.poznan.pl

4. eIFL.net is not for profit organisation that supports and advocates for the wide availability of electronic resources by library users in transitional and developing countries. Its core activities are negotiating affordable subscriptions on a multi-country consortial basis, supporting national library consortia and maintaining a global knowledge sharing and capacity building network in related areas, such as open access publishing, intellectual property rights, open source software for libraries and the creation of institutional repositories of local content.

Vision and mission of eIFL.net – The eIFL.net vision is to provide leadership and be a strong international advocate for expanded availability of electronic resources and to enhance the skills base of eIFL.net library consortia, so that they are at the leading edge of developments.

eIFL.net's mission is to: (1) assist in the building of strong national consortia; (2) be the premier multi-country negotiator for securing affordable commercial electronic information services; (3) provide strong advocacy and support for the development and accessibility of local digital resources; (4) provide an effective central advisory and capacity building program in open access publishing, copyright and free and open source software for libraries (5) leverage multi-national expertise and resources to fulfill this mission; (6) provide top quality educational and consulting services; (7) be an advocate for the adoption and advancement of effective information distribution models; and (8) develop model partnerships with global funding agencies, foundations, consortial groups, and content providers.
http://www.eifl.net/cps/sections/home.
48Member Countries - http://www.eifl.net/cps/sections/countries

Professionals will need to seek out and use professional development initiatives and opportunities (regional, national, international) and to use libraries as laboratories for ongoing, lifelong training:

OPAL (Online Programming for All Libraries--And All Library Users) is an international collaborative effort by libraries and other organizations to provide web-based programs and training for library users and library staff members.
http://www.opal-online.org/index.html

Association of College & Research Libraries Statement on Professional Development
http://www.ala.org/Template.cfm?Section=staffdevelopment&template=/ContentManagement/ContentDisplay.cfm&ContentID=59089

Library & Information Technology Association – Clearinghouse for Professional Development -
http://www.ala.org/ala/lita/litaresources/clearinghouseforprofessionaldevelopment/index.cfm

American Library Association Professional Tools
(http://www.ala.org/Template.cfm?Section=proftools) for:
Academic Libraries - http://www.ala.org/Template.cfm?Section=academic
Government Libraries - http://www.ala.org/Template.cfm?Section=government
Independent Libraries and Library Consultants –
     http://www.ala.org/Template.cfm?Section=indecons
Library Advocates - http://www.ala.org/Template.cfm?Section=libraryadvocates
Multitype Library Cooperatives - http://www.ala.org/Template.cfm?Section=multitypelibrary
Public Libraries - http://www.ala.org/Template.cfm?Section=public
School Libraries - http://www.ala.org/Template.cfm?Section=school
Special Libraries - http://www.ala.org/Template.cfm?Section=special
Specialized Library Agencies - http://www.ala.org/Template.cfm?Section=speclibraryagen
State Library Agencies - http://www.ala.org/Template.cfm?Section=statelibraryagen
Library Trustees - http://www.ala.org/Template.cfm?Section=statelibraryagen
Vendors and Library Suppliers - http://www.ala.org/Template.cfm?Section=vendorssuppliers
ALA – Education and Careers - http://www.ala.org/ala/education/educationcareers.htm
Continuing Education –
     http://www.ala.org/ala/education/professionaldevelopment/ce/continuingeducation.htm
Continuing Education Clearinghouse –
     http://www.ala.org/cetemplate.cfm?section=ceclearinghouse&template=/cfapps/contedu/
     searchmain.cfm
Education and Degrees / Certificates - http://www.ala.org/ala/education/degrees/degrees.htm
Employment Resources - http://www.ala.org/ala/education/empopps/employment.htm
     ALA - http://joblist.ala.org/?gclid=CI3RvO-EzYsCFRMFPgodEjCMIg
     LISJobs.com – http://www.lisjobs.com/
     International - http://www.ifla.org/II/lists/libjobs.htm
          http://infoserv.inist.fr/wwsympa.fcgi/info/libjobs
     United Kingdom - http://www.lisjobnet.org.uk/jobs/query.htm
     Non-USA Employment - http://www.lisjobs.com/nonus.htm
     Agencies - http://www.libraryjobpostings.org/placement.htm
     Mortenson Center for International Library Programs –
          http://www.library.uiuc.edu/mortenson/intllibemploy.htm
     LibrarySpot Gateway - http://www.libraryspot.com/libshelf/jobs.htm
     Bibliozine - http://www.bibliozine.com/employment/employment1.shtml
     Digital Librarian - http://www.digital-librarian.com/employment.html

Professionals will need to remain aware of Knowledge-creation *and* knowledge consumption; the shifting balance of the physical library with the virtual-digital library; and the availability of quality resources to all via the Web.
     Government Documents –regional, national and international.
     1. *USA.gov* are the official information and services from the U.S. government
     http://www.usa.gov/
     2. *GPO Access* is a service of the U.S. Government Printing Office (GPO), which provides free electronic access to a wealth of important information products produced by the Federal Government. http://www.gpoaccess.gov/index.html
     3. *Information USA* is an authoritative resource for foreign audiences seeking information about American society, political processes, official U.S. policies and culture.
     http://usinfo.state.gov/usa/infousa/
     4. *Background Notes* include facts about the land, people, history, government, political conditions, economy, and foreign relations of independent states, some dependencies, and areas of special sovereignty. The Background Notes are updated/revised by the Office of Electronic Information and Publications of the Bureau of Public Affairs. http://www.state.gov/r/pa/ei/bgn/
     5. *Country Studies Series* presents a description and analysis of the historical setting and the social, economic, political, and national security systems and institutions of countries throughout the world. http://lcweb2.loc.gov/frd/cs/cshome.html

6. *Country Reports on Human Rights Practices* are submitted annually by the U.S. Department of State to in compliance with the Foreign Assistance Act of 1961 (FAA) and the Trade Act of 1974: "a full and complete report regarding the status of internationally recognized human rights, within the meaning of subsection (A) in countries that receive assistance under this part, and (B) in all other foreign countries which are members of the United Nations and which are not otherwise the subject of a human rights report under this Act."
http://www.state.gov/g/drl/rls/hrrpt/
7. *Portals to the World* contains selective links providing authoritative, in-depth information about the nations and other areas of the world. They are arranged by country or area with the links for each sorted into a wide range of broad categories. The links were selected by Area Specialists and other Library staff using Library of Congress selection criteria.
http://www.loc.gov/rr/international/portals.html
8. *GODORT* has a task force on international documents and a page dedicated to useful links:
http://www.library.uiuc.edu/doc/idtf/links.htm#foreign .
9. *The United Nations* has a list of depositories worldwide for their documents at
http://www.un.org/depts/dhl/deplib/countries/index.html . The UN depositories in the US are at:
http://www.un.org/depts/dhl/deplib/countries/usa.htm .
10. *European Union Documents* - This site sets out all the documents available and will help you find the document you need. It is divided into three sections to facilitate access to legislation, activity reports, brochures, audio-visual material, internal documents, archives, etc.
http://europa.eu/documents/index_en.htm

Other free resources.
1. *Best Free Reference Web Sites, Combined Index, 1999-2006*, RUSA Machine-Assisted Reference Section (MARS). This is an index of the web sites included in the 1999-2006 annual lists issued by the Mars Best of Free Reference Web Sites Committee of the Machine-Assisted Reference Section (MARS) of the Reference and User Services Association (RUSA) of ALA to recognize outstanding reference sites on the World Wide Web.
http://www.ala.org/ala/rusa/rusaourassoc/rusasections/mars/marspubs/MARSBESTIndex.htm
2. *Refdesk.com* – The Single Best Source for Facts. M "Since 1995, refdesk indexes quality, credible and timely resources that are free and family-friendly." http://www.refdesk.com/
3. *National Academies Press* – read more than 3,000 books online free http://www.nap.edu/
4. *Primary History Resources on the Web*
http://www.lib.washington.edu/subject/History/RUSA/
5. *ResourceShelf*. ResourceShelf, where dedicated librarians and researchers share the results of their directed (and occasionally quirky) web searches for resources and information.
 ResourceShelf is updated daily by an editorial team. Browse postings, subscribe to the weekly newsletter, and capture RSS feeds to add ResourceShelf to your own reference collection.
http://www.resourceshelf.com/
6. *Virtual Reference Desk* http://www.webjunction.org/do/Navigation?category=11649.

Professionals will need to remain aware of major library assessment initiatives.
LibQUAL+™ - http://www.libqual.org
Project SAILS (Standardized Assessment of Informaiton Literacy Skills) –
https://www.projectsails.org/

In conclusion:
Library and information professionals around the world are in a position to exert tremendous influence on the quality and types of information available to patrons. We can have a tremendous impact on efficiency and effectiveness of access to information, especially for any patron who uses a computer and a Web account. However, in order to seize the opportunities we have for influence and impact, we must 1) remain vigilant of changes and innovations; 2) embrace them; 3) seek to understand and use them in our work; and 4) guide our patrons to use information resources and tools of all kinds, irrespective of medium, format or technology. We have ongoing opportunities to model educated, mature and effective research strategies and to

pass this as our legacy on to future generations: the powerful legacy of the mutual inclusivity of research tools and resources – high and low technologies, high-touch and asynchronous communication – to teach our patrons to grow as mature, independent, lifelong learners.