

Libraries, Librarians, and Library Associations in the United States in 2001: Making a Difference in the Knowledge Age

Edited by Michael Dowling

Michael Dowling is Director, International Relations Office, American Library Association (ALA), 50 East Huron Street, Chicago, Illinois 60611, USA. Tel: +1 (312) 2803200. Fax: +1 (312) 9443897. E-mail: mdowling@ala.org.

As IFLA and the international library community get ready to meet in the United States for the first time in fifteen years, this arti-



cle provides a quick overview of libraries in the United States and how libraries, librarians and library associations are positioning themselves to meet the challenges in 'Making a Difference in the Knowledge Age'.

Cooperation has been essential to the growth and status of libraries in the United States, and organizing IFLA 2001 is no different. Six US library associations that are members of IFLA make up the conference organizing committee. They are the American Association of Law Libraries (AALL), the American Library Association (ALA), the Association of Library and Information Science Education (ALISE), the Association of Research Libraries (ARL), the Medical Library Association (MLA), and the Special Libraries Association (SLA).

Along with hundreds of volunteer librarians in the New England region and across the country, over one hundred libraries, library associations, library consortia, library agencies, foundations, and library-related businesses are also contributing to the effort.

Libraries and library associations in the United States are focusing on services and issues related to the conference subthemes: advancing the leadership role of librarians; delivering lifelong learning across space and time; managing information and technology; developing information policies; forging collaborative partnerships; making a difference to government and industry in economic development, to society in social and cultural development, to researchers exploring the frontiers of knowledge, to children and young adults in learning opportunities and in the quality of life to the public.

With a population of over 280 million people the United States has over 120,000 libraries.¹ They range from the Library of Congress, the largest library in the world, with 4,200 employees, to public, school, medical, law and special libraries run by one person.

Public Libraries	8,967
Centrals	8,943
Branches	7,147
Buildings	16,090
Academic Libraries	3,408
Less than four year	1,293
Four year and above	2,115
School Libraries	98,169
Public Schools	77,218
Private Schools	20,951
Special Libraries	9,993
Armed Forces Libraries	341
Government Libraries	1,411
Total	122,289

Table 1. Libraries in the United States, 2001

Note: The total number of public libraries is different from the number of central buildings because some public libraries have no central building and some have more than one.

Federal Government and Libraries

Very little direct funding of libraries in the United States comes from the federal government. Outside of funding for government libraries, the US government dedicates around USD 200 million, or less than USD 1.00 per citizen, to libraries. Libraries are eligible through a variety of programs to apply for additional funds from the US government, but they must compete with other institutions for these funds.

Libraries in higher education institutions and in elementary and secondary schools receive almost all their financial support from their parent institutions, with a small percentage coming from gifts and grants. Public libraries have several different sources of revenue but are funded primarily by local tax dollars.

Unlike many other countries no federal department in the United States is responsible for the oversight of libraries. Two federal agencies do distribute federal funds and provide advice to the President and Congress on the library needs of the nation. **The Institute of Museum and Library Services (IMLS)** is an independent federal grantmaking agency of the executive branch that fosters leadership, innovation, and lifelong learning by supporting museums and libraries. It was created by the Museum and Library Services Act of 1996, which moved federal library programs from the Department of Education and combined them with the museum programs of the former Institute of Museum Services.

IMLS provides funding to all types of libraries to improve access to information through technology, to ensure equity of access and to help bring resources to under-served audiences. IMLS distributes most of its funds through state library agencies.

A sample of recent IMLS national leadership grants includes funds

for: University of North Texas in partnership with the Denton Public Library System, the African American, Museum in Dallas, and the Dallas Museum of Art, to produce expert managers of digital images and information; a distance education institute created by NYLINK (a library system) to allow library professionals achieve greater fluency in information technology; and a partnership between the Detroit Public Schools and Wayne State University Library and Information Science Program to reopen ten closed school libraries and train twenty teachers from diverse cultural backgrounds as school library media specialists. For additional information see <http://www.imls.gov>.

The US National Commission on Libraries and Information Science (NCLIS) is an independent agency within the executive branch. NCLIS provides advice to the President and Congress based on studies, surveys, and analyses of the needs of the nation. It serves as a liaison to the library community, organizes meetings and professional development workshops, supports in-state training, monitors trends, and advises the National Center for Education Statistics (NCES) and the Director of the Institute of Museum and Library

Services (IMLS) on policy matters related to libraries.

Some examples of recent and ongoing issues addressed by NCLIS include the following:

- how can public and school libraries handle access by children to inappropriate material on the Internet?
- how can the people guarantee continuing access to information produced by their government?
- what is the growth of access to the Internet in public libraries?
- how can school and public libraries improve literacy and information literacy?
- what is the state of library and information services for individuals with disabilities?

International activities include 'Sister Libraries: A White House Millennium Council Project'. NCLIS has also adopted a resolution to support the US rejoining UNESCO. For additional information see <http://www.nclis.gov>.

Government Libraries

The US has over 1,400 government libraries. Most of the libraries primarily serve the employees in their



Figure 1. Children of migrant farm workers at a housing complex in Talent, Oregon, show off their books at a storytime session sponsored by the Jackson County Library in Medford, Oregon.

parent agency. However, many also provide public services. The two largest are the Library of Congress and the National Library of Medicine.

The **Library of Congress** is the world's largest library, with approximately 4,200 employees and collections numbering nearly 21 million items. The Library celebrated its 200th anniversary last year. The Library is in essence a conglomerate, comprising the Congressional Research Service, the Copyright Office, and the National Library. The national library component of the Library of Congress organizes, preserves, secures, and sustains for the present and future use of the Congress and the nation a comprehensive record of American history and creativity and a universal collection of human knowledge. Service to the US Congress remains the Library's first priority throughout its service units.

The Library of Congress welcomed the libraries' digital future in 2000, reaching its five-year goal of making freely available 5 million items on its World Wide Web site. In addition to digitizing its own collection the Library of Congress continues to work with others to archive and make freely available materials in electronic format. Recent cooperative projects include archiving electronic journals published by American Physical Society, strengthening a relationship with Bell & Howell Information & Learning for digital access to all US doctoral dissertations, and working with the Internet Archive to select and acquire open-access Web resources of special interest to libraries. The US Congress has authorized an additional USD 100 million for the Library to lead a national program to collect and preserve digital content.

The Library is also helping to lead the way to new service paradigms and recently launched the Collaborative Digital Reference Service (CDRS) pilot project to provide round-the-clock reference service to libraries everywhere via the Internet and has reached agreement to

develop the full-scale service in cooperation with OCLC, Inc. A recent symposium, 'Building the Virtual Reference Desk in a 24/7 World', was held at the Library to discuss the service.

Every year the Library hosts scholarly seminars to discuss national and international library issues. Symposia were held last year on national libraries of the world, preservation and security, and bibliographic control. For more information see <http://www.loc.gov>.

The **National Library of Medicine** (NLM) is the world's largest medical library. The Library collects materials in all areas of biomedicine and health care, as well as works on biomedical aspects of technology, the humanities, and the physical, life, and social sciences. The collections stand at 5.8 million items.

NLM's computerized Medical Literature Analysis and Retrieval System (MEDLARS) continues to provide rapid access to the vast store of biomedical information in the collections. MEDLINE, the most widely used of the MEDLARS databases, contains more than 10 million references. Over 250 million searches are done on MEDLINE each year by health professionals, scientists, librarians, and the public. There are increasing links between article references and full text, and a new service called PubMed Central allows free access to a central repository of journal articles. The NLM has created a special website, MEDLINE-plus, to link the general public to many sources of consumer health information.

The Lister Hill National Center for Biomedical Communications explores the uses of computer, communication, and audiovisual technologies to improve the organization, dissemination, and utilization of biomedical information and has conducted a number of valuable experiments using satellites, microwave and cable television, and computer-assisted instruction.

The National Center for Biotechnology Information (NCBI), established by Congress in 1988, has assumed a leadership role in developing information services for biotechnology - the task of storing and making accessible the staggering amounts of data about the human genome resulting from genetic research at the NIH and laboratories around the nation. NCBI distributes GenBank, a collection of all known DNA sequences, and maintains the Human Gene Map on the World Wide Web.

The National Network of Libraries of Medicine (NN/LM) has been created to advance the progress of medicine and improve public health by providing all US health professionals equal access to biomedical information, to improve the public's access to information and to enable them to make informed decisions about their health. For more information see <http://www.nlm.nih.gov/>.

State Library Agencies and Library Systems

Each state in the United States has a state library agency, but since each state was responsible for the creation of its own state library agency the structure and functions of each are slightly different. State libraries provide support for libraries, state government, and the public. Some of the major functions of state library agencies are: the administration of federal and state aid to libraries; the collection and publication of library statistics; providing consultation services to libraries; library legislation preparation and review; reference and loan to state government agencies; administration of the library for the blind and physically handicapped; and continuing education programs.²

In addition to support from state library agencies, most libraries in the US belong to library systems, networks or consortia. These networks and systems are often multi-type, meaning they represent more

than one type of library (i.e. public, academic, school). Library systems provide libraries the ability to cooperate together to enhance services to each library through shared library computer systems, shared access to databases, interlibrary loan, reciprocal borrowing, discount purchasing plans, and continuing education opportunities.

Libraries

Despite the fears that libraries would become obsolete in today's virtual world, libraries in the United States remain popular. Libraries in the US have been embracing new technologies to provide new services and attract new users. A recent survey found that 90 percent of Americans believe libraries will be needed in the future.³ However, this does not mean that libraries can take their support for granted. Libraries need to continue to adapt and change if they are going to continue to make a difference in the Knowledge Age.

Library facilities need to change to be able to meet the needs of the Knowledge Age. Over 1,300 academic and public libraries have been built or renovated in the last six years, including the building and remodeling of main central libraries in large metropolitan areas.⁴ Cities now see libraries as an integral part of their revitalization efforts. Libraries are being designed not only to handle the technology of today and tomorrow, but also are incorporating design elements such as coffee shops and other multiple use features to attract users and serve as gathering places and cultural centers.

Though many library services can be used electronically from outside the library (such as dialup access to catalogs and databases, and automated renewals) people still visit libraries in large numbers. Nearly 20 million people visit a public library each week in the United States. Over 35 million students visit their school library each week. And over 16 million students and

faculty visit academic libraries each week.⁵

Public Libraries

From the latest figures the nation's 8,976 public libraries spent more than USD 5.8 billion per year. Public libraries in the United States spend an average of USD 22.88 per person in the population they serve, about the cost of one hardcover book per person. Public libraries receive 78 percent of their funding from local sources, 12 percent from state sources, 1 percent from federal government sources and 9 percent from other sources (gifts, grants, etc.).⁶

Below is a snapshot of library usage in public libraries, and some of the services in today's public libraries to meet the needs of diverse users:

- 65 percent of all households use public library services each year.⁷
- Americans borrow more than 1.6 billion items per year from their public libraries, an average of 6.6 items per person in populations served.
- Public libraries provided more than 10.5 million loans to other libraries and received over 10.9 million loans

- Reference librarians at public libraries answer nearly 300 million reference queries a year.⁸
- Nearly 95 percent of the 16,090 public library outlets provide public access to the Internet.⁹
- 46 percent of public libraries offer classes on the Internet.¹⁰
- Nearly 33 percent of public libraries have begun buying electronic books.¹¹
- 67 percent now have Spanish language collections.¹²

Public Libraries and Cultural Programming

- 86 percent of public libraries offer some type of adult cultural programming.
- 70 percent offer locally produced cultural exhibits.
- 60 percent provide book discussion groups and author presentations/readings.
- 20 percent provide creative writing workshops, adult reading incentive programs, dramatic programs and film series.¹³

Public Libraries and Children

- Nearly 100 percent provide reading programs, (book discussion, storytelling and summer reading), for children.



Figure 2. Ride to Read. Youngsters in Jacksonville, Florida can now travel to the library free, thanks to the new Ride to Read Program, a partnership between the public library and transportation authority. Children registered for the program can show their library cards to get bus-ride coupons taking them to and from the city's fifteen library locations. This bus, sponsored by the Jacksonville Public Library Foundation, publicizes the program on various routes.

- 83 percent sponsor cultural programs (presentation by authors, musical or dramatic performances and creative writing workshops).
- 42 percent offer community service and leadership programs with older students serving as tutors for younger peers or as volunteers in the library.
- 33 percent provide computer classes and workshops.
- 23 percent offer homework assistance which is primarily intended for elementary school students.¹⁴

Academic Libraries

The latest available figures indicate that the nation's 3,408 academic libraries spend over USD 4.3 billion per year, or an average of USD 310.22 per full time student.

- Academic libraries in the US circulate over 186 million items from their general collection, an average of 11.6 items per student (full-time equivalent).
- Academic libraries answer around 1 billion reference questions a year.
- Academic libraries loan over 9 million items a year to other libraries and receive over 7.5 million items from other libraries.
- Academic librarians make over 400,000 presentations about information resources and services reaching a total of 7 million students. Through such classes, academic librarians help students gain the information literacy needed for success.¹⁵
- Large research libraries now spend 10.5 percent of their collection funds on electronic resources.¹⁶
- Interlibrary borrowing in research libraries has increased 84 percent in the last decade.¹⁷

Though library budgets have continued to grow in the last decade thanks to a robust economy the cost for access to information also continued to rise. This is particularly acute in the academic community with the dramatic increase in serial costs. ARL and North American research libraries are involved in

calling for positive change in the scholarly communication system. 'Create Change' is a resource for faculty and librarian action to reclaim scholarly communication. The materials inform stakeholders of the issues, encourage competitive alternative journals and foster changes in the peer review system that will emphasize quality over quantity and encourage alternative publishing venues. SPARC (The Scholarly Publishing and Academic Resources Coalition) is a worldwide alliance of research institutions, libraries, and organizations that encourages competition in the scholarly communications market. SPARC introduces new solutions to scientific journal publishing, facilitates the use of technology to expand access, and partners with publishers that bring top-quality, low-cost research to a greater audience.

With the ability of users to access library services without even going to the library (at home, elsewhere on campus, or anywhere around the world), traditional statistical counts are not accurately reflecting all that libraries are providing to students and faculty. Academic libraries in the United States are moving toward 'performance and outcome' assessments to show their value to their institutions.

The rapid development of digital libraries continues in the United States. The Council of Library and Information Resources (CLIR) has sponsored The Digital Library Federation (DLF) which is a consortium of research libraries that are transforming themselves and their institutional roles by utilizing digital technologies.

School Libraries

Working collaboratively with teachers, administrators and parents, school library media specialists are teaching students the information skills they need to live and work in the 21st century.

The latest figure on school library media center expenditures for non-

salary items at the nation's 98,169 public and private school libraries was USD 828 million, an average of USD 23.20 per pupil.

- For school libraries, the amount of circulation varies by level of school. According to the most recent figures the average public elementary school circulated 622 items per week or 1.5 per student and the average public high school circulated 275 per week or 0.5 per pupil.¹⁸
- Studies in Colorado and Alaska have demonstrated that students in schools with library media programs that include more and better qualified staff, more staff-teacher collaboration, large diverse collections and more information technology score higher on standardized tests.¹⁹
- 84 percent of school libraries have access to the Internet.
- 87 percent provide teachers with information about new resources.
- 85 percent provide reading, listening, and viewing guidance for students.
- 67 percent offer a program of curriculum-integrated skills instruction.
- 62 percent help teachers develop, implement and evaluate instruction.
- 54 percent assist school curriculum committees with recommendations.
- 74 percent help students and teachers use resources outside the school.
- 53 percent help parents realize the importance of lifelong learning.
- 34 percent conduct workshops for teachers.
- 15 percent of school libraries have primary for the schools website.²⁰

Special Libraries

There are roughly 11,000 special libraries serving business, academia, governments, and the public in the US. Of these, about 60 percent serve for-profit enterprises - the professions (accounting, consulting, law, medicine, etc.) and corporations representing most of these.

Such libraries are at the leading edge in the development and use of new technologies to facilitate the sharing of information and knowledge through the organization. Government agency libraries primarily serve their employees in fulfilling the mission of that agency. However, many also provide public services. Special libraries in public and academic settings typically serve specific users or subject matter and occasionally are available to the public on a limited basis.

US special libraries face many challenges now and in the future. Today, many business libraries and information centers face scrutiny for budget cuts or possibly elimination. Much of this trend is reflective of the public perception that the Internet allows for 'disintermediation' - the removal of layers between people and the information they need. However, recent studies have shown that information overload and the unreliable nature of the Internet are drawing many back to the idea that an 'information intermediary' - like a librarian - can provide mission-critical services to information seekers.

Additionally, the digital age presents many challenges for librarians as they access and disseminate information. Publishers and other content providers are wary to allow the same level of use as has been standard in the print/analog world. Intellectual property laws have been enacted in many nations that restrict the use of copyrighted works beyond traditionally accepted limits. As digital information management becomes mainstream worldwide, creators and librarians need to work together to ensure that library users benefit from the many advancements in technology.

Medical Libraries

Medical librarians in the US work in many settings ranging from academic medical centers, hospitals (both teaching and non-teaching) and college and university libraries to medical societies, pharmaceutical companies and veterinary sci-

ence libraries. There are approximately 3,000 medical libraries in the US. This does not include pharmaceutical and other medically-related corporate libraries. Beyond their traditional roles of serving as part of the health care team, providing relevant health information for patient care, research, and education, more and more US medical libraries are reaching out into their communities to serve the public by providing services that help consumers find useful and accurate information. This is especially important with the increase in health information on the Internet and the question of accuracy and quality of that information.

Law Libraries

There are over 2,000 law libraries in the United States including academic law libraries; state, court, and county law libraries, private law firm and corporate law libraries and other legal organizations.

Library Education

The professional degree for librarians in the United States is a master's degree in library and information science. As of December 2000, there were fifty-eight graduate programs in library and information studies in the US and Canada accredited by the American Library Association. Though some have predicted the demise of librarianship the number of students in library schools in the North America has jumped dramatically from 8,925 full and part-time students in 1989 to 12,292 full and part-time students in 1999, an increase of 27 percent. Each year more than 4,500 persons receive the master's degree from these programs. Graduates are finding positions not only in libraries, but also in the private sector that is becoming increasingly dependent on information knowledge workers. The competition from non-library employers in recent years, coupled with increased retirements as the profession, has made it hard for some libraries to fill positions.

The percentage of female to male graduates remains around 80 percent to 20 percent. And though the number of minority graduates (Native-American, Asian-American, African-American, Hispanic-American) has increased slightly from 9 percent to 11 percent in the last decade, it is still far below a true representation of the country's ethnic population mix. To encourage ethnic minorities to consider librarianship as a profession ALA, ARL and others have created scholarship programs.

The impact of library education in North America goes well beyond the borders. Around 350 international students are studying in master's programs in the United States each year. They are joined by up to 200 international students working on their doctorates.²¹

In recognition of the globalization of librarianship, ALA has recently modified its policy on the appropriate professional degree, which may now be a master's degree either from an accredited ALA school or from a master's level program in library and information studies accredited or recognized by the appropriate national body of another country.

With the rapid changes in the delivery of services and skill sets needed to be effective as a librarian today the profession has been taking a hard look at its educational process, to determine if it is providing the right type of training for librarians in the 21st century. ALA recently held two Congresses on Professional Education, to review current education and future needs, the first, 'Focus on Education for the First Professional Degree' and the second on 'Continuing Education'. ALISE also recently produced the Kaliper Report, a study that identifies trends in library and information science education.

Library Associations

Librarians and libraries the United States recognized early on the value of creating strong, active library

associations. Today's librarians and libraries continue to rely on national, state, and regional library associations to provide them with assistance.

The national library associations in the United States have each established offices that are responsible for following and influencing policy issues, legislation, and regulations of importance to the library field and to the public. These offices work with state and regional associations and other organizations to keep on top of issues and to ensure that libraries have a place at the table where discussions take place. The offices also alert their members and other librarians when immediate action is needed regarding legislation.

The American Association of Law Libraries (AALL) with nearly 5,000 members has been a leader in promoting the value of law libraries, fostering the profession of law

librarianship, and providing leadership in the field of legal information and policy. Some thirty-two chapters now provide members a forum for their AALL and region-specific interests.

AALL became the first national organization to recommend a new standard for citing primary law, case, constitution, statutory, and administrative law in response to member expectations for vendor-neutral citations and the increasing use of electronic information sources. AALL partnered with other organizations to expand its reach beyond its traditional audience of law librarians. AALL recently joined the Conference of Chief Justices, the American Bar Association, the League of Women Voters, and the Conference of State Court Administrators for the "National Conference to Improve Public Trust and Confidence in the Justice System." For more information see www.aallnet.org.

The American Library Association (ALA) has over 60,000 members, including 1,700 international members from over 100 countries. ALA has fifty-seven state, regional and territorial chapters. ALA has targeted five key action areas to focus on 1) Diversity 2) Education and Continuous Learning, 3) Equity of Access 4) Intellectual Freedom, and 21st Century Literacy. To increase support for libraries and librarians ALA has embarked on a five-year *Campaign For America's Libraries* with the tagline @ your library to remind the public that today's libraries are dynamic, modern community centers for learning, information and entertainment. In addition to promoting a 'National Library Week' every April, ALA through its Young Adult and User Services Division (YALSA) has created a national 'Teen Read Week' to encourage young adults to read. ICONNECT, an initiative of the *American Association of School Librarians (AASL)*, supports school library media specialists as they assume leadership positions in the use of the Internet in the school community. For more information see www.ala.org.

The Association for Library and Information Science Education (ALISE) has as its mission to promote excellence in research, teaching, and service for library and information science education. ALISE works to promote an understanding of the values and ethos of library and information science. It also advances research that contributes to and enlarges the knowledge base of library and information science and education in the field. ALISE provides information about issues, trends in such areas as curriculum, research, funding, consulting, continuing education, government, and society as these influence and inform library and information science. For more information see www.alise.org.

The Association of Research Libraries (ARL) represents the 122 principal research libraries that serve major research institutions in the United States and Canada. The priorities of ARL are to: intensify



Figure 3. The new Carlsbad City Library in California, following the trend for public libraries in the US to be a focal point in the community, features a 221-seat auditorium and an art gallery.

copyright awareness within the research and educational communities, create and implement cost-effective models and strategies for managing scholarly communication in partnership with other organizations, help research libraries and their constituencies move into an increasingly diverse environment, and ensure that research and learning will flourish through the development of advanced networking applications. ARL has created a Leadership and Career Development Program to enhance the leadership skills and visibility of librarians of color. ARL's Global Resources Program goal is to improve access to international research resources regardless of format or location. ARL has also established the North American Interlibrary Loan and Document Delivery Program that maximizes access to resources while minimizing costs. For more information see www.arl.org.

The Medical Library Association (MLA), founded in 1898, is the second oldest special library association in the United States. MLA has grown to an educational organization of more than 1,200 institutions and 3,800 individual professionals in the health information field. MLA is dedicated to improving excellence and leadership of the health information professional to foster the art and science of health information services. MLA provides professional development to its members and the profession through career information resources, educational meetings, publications, courses, awards, scholarships and grants. The association also serves as an advocate for the profession and for all health sciences libraries and librarians through its public relations and government relations programs. MLA is currently focusing on recruitment to the profession and increasing diversity in health sciences librarianship. For more information www.mlanet.org.

The Special Libraries Association (SLA) has nearly 15,000 members in over sixty countries. SLA has fifty-six regional chapters in the

United States, Canada, Europe and the Middle East. SLA's vision is to be known as the leading professional association in the information industry - a catalyst in the development of the information economy, and a strategic partner in the emerging information society. SLA offers a myriad of programs and services designed to help its members succeed in the increasingly challenging environment of information management and technology. The SLA Professional Development Program strives to help information professionals meet their potential by providing educational opportunities based on professional and personal competencies outlined in SLA's report *Competencies for Special Librarians in the 21st Century*. Last year SLA held GLOBAL 2000, the second worldwide conference in special librarianship, in Brighton, UK. For more information see www.sla.org.

Some Issues for Libraries

Information Literacy

In the Knowledge Age societies will need information literate citizens to compete and succeed. Information literacy can be defined as acquiring the set of abilities to obtain, interpret, and effectively use information for any decision or task. Being able to read will not be enough to succeed. It will not be enough to just learn how to use new technologies. Information literate people are those who have learned how to learn.

As information professionals, librarians in the United States have been among the first to recognize the importance of information literacy. The American Association of School Libraries (AASL), and the Association of College and Research Libraries (ACRL), divisions of ALA, have created information literacy standards for elementary, secondary, and higher education. Libraries are adopting these standards and incorporating them into their institutions. ALA has also created a 'Library Advocate's Guide to

Building Information Literate Communities'.

Bridging The Digital Divide

Just as in the past libraries in the United States continue to bridge the divide between the information 'haves' and the information 'have-nots'. Libraries are the most common alternative point of Internet access for those without computers at home, school, or work.²² One of the largest efforts in bridging the digital divide was the work of the library and education community to include an E-Rate provision for schools and libraries in the Telecommunications Act of 1996. The E-Rate provides up to USD 2.26 billion a year in discounts on telecommunication services. Libraries can receive discounts from 20 percent to 90 percent off their telecommunication charges. This has allowed libraries that could not afford Internet access to get it, and for other libraries to add additional connections to serve more people.

Libraries are reaching out to underserved populations to make sure they have access to electronic information. Libraries in Nevada, Arizona, Utah, and Texas offer Internet training classes in Spanish. Many libraries, such as the Winnefox Library System (Wisconsin) offer special training courses on computers for senior citizens. The Newburgh Free Library (New York) has opened an 'e-Learning Center' which includes two workstations to accommodate wheelchairs and two large screen monitors to assist those with reduced visual abilities. Liverpool Public Library (New York) offers a small business course that focuses on where to find websites related to all aspects of running a business.

Libraries are also taking the technology to the people. Across the country Cybermobiles such as those in Chester County Library (Pennsylvania) and St. Louis County (Missouri) are bringing the Internet and online reference support to neighborhoods where residents would have to travel long distances to

access services. Others are reaching out beyond the walls in other ways. Indianapolis Public Library (Indiana) has teamed up with the Children's Museum of Indianapolis to put an InfoZone in the museum with books, CDs, videos, periodicals and computers. The Enoch Pratt Free Library in Baltimore (Maryland) has put library kiosks in shopping malls.

Copyright and Fair Use

Equal access to information is essential for all citizens. With the new digital environment publishers and information providers have pushed to enact a variety of legislation at the state, national and international levels that would limit libraries fair use and access to information being produced in new formats. Once again librarians, libraries, and library associations in the US are coordinating efforts to ensure that any legislation must strike a balance between owners, users, and creators of copyrighted works. The Digital Futures Coalition is a broad-based group of business, library, educational, consumer and technology organizations committed to maintaining a balance in the copyright law. The Shared Legal Capability is a collaborative alliance among AALL, ALA, ARL, MLA, and SLA which seeks to ensure a unified voice and common strategy for the library community in responding to and developing proposals to amend copyright and intellectual property law in the digital age.

Intellectual Freedom and Internet Filtering

Though one of the founding principles of the United States is intellectual freedom, embodied in the First Amendment's right of free speech and freedom of the press clauses, US libraries are not immune from challenges to intellectual freedom. The Harry Potter series by J.K. Rowling topped the list of most challenged books in libraries for a second year in a row. The series continues to draw complaints from parents and others concerned about the books' alleged occult/Satanic theme, religious viewpoint, anti-

family approach and violence. The ALA Office for Intellectual Freedom received a total of 646 reported challenges in 2000, up from 472 in 1999. A challenge is defined as a formal, written complaint filed with a library or school about a book's content or appropriateness. Schools, school libraries, and public libraries report the majority of challenges to materials.

Another challenge to access to information in the United States is the attempt by local, state, and the federal government to control what can be accessed from the Internet by mandating that libraries use filtering software on their computers. Filters have been proven to not be completely effective in blocking out considered harmful information (such as pornography) while blocking out constitutionally protected information. A recent study of public libraries in the United States found that less than 17 percent of the libraries use any type of filters, and only 7 percent use them on all of their computers.²³ Libraries and library associations are once again working other concerned organizations to defeat and challenge legislation that they feel is a violation of the First Amendment of the United States.

Acknowledgements

The editor is grateful for the contributions from the National Commission on Library and Information Science, the Library of Congress, the Association of Research Libraries, the Medical Library Association, the Special Libraries Association, and Mary Jo Lynch, Director of the Office for Research and Statistics at the American Library Association.

References

¹ No annual survey provides statistics on all types of libraries. The public, academic, and school library counts presented come from the most recent versions of three different surveys by the US Department of Education National Center for Education Statis-

tics (NCES): *Public Libraries in the United States: FY 1997 (2000)*; *Academic Libraries: 1996 (2000)*; and *School Library Media Centers: 1993-94 (1998)*, respectively. Figures for special libraries, armed forces libraries, and government libraries come from the *American Library Directory 2000-2001 (2000)* compiled by the R. R. Bowker Company.

² *The Function and Roles of State Library Agencies*, compiled by Himmel, Ethel E. and William J. Wilson, American Library Association, Chicago 2000.

³ American Library Association, conducted by the Gallup Organization, 1998.

⁴ Fox, Bette-Lee. "Library Buildings 2000: Strength in Numbers" *Library Journal*, 125 (20): 50-61 (December 2000).

⁵ U.S. Department of Education, National Center for Education Statistics (NCES): *Public Libraries in the United States: FY 1997 (2000)*; *Academic Libraries: 1996 (2000)*; and *School Library Media Centers: 1993-94 (1998)*, respectively.

⁶ U.S. Department of Education, National Center for Education Statistics. *Public Libraries in the U.S. FY 1997 (2000)*.

⁷ U.S. Department of Education, Office of Educational Research and Improvement. *Use of Public Library Services by Households in the United States: 1996*.

⁸ U.S. Department of Education, National Center for Education Statistics. *Public Libraries in the U.S. FY 1997 (2000)*.

⁹ "Technology in Public Libraries Survey," distributed by ORS. Based on 1999 *Statistical Reports of PLA's Public Library Data Service*.

¹⁰ *Ibid.*

¹¹ Hoffert, Barbara "Book Report 2001: The Budget Shifts" *Library Journal* 125 (3): 130-132 (February 15, 2001).

¹² *Ibid.*

¹³ "Cultural Programs for Adults in Public Libraries: A Survey Report." American Library Association, Lila Wallace-Reader's Digest Fund, January 1999.

¹⁴ "Survey of Programs for School-Age Youth in Public Libraries, Technical Report to the Dewitt Wallace-Reader's Digest Fund." American Library Association, January 1999.

¹⁵ U.S. Department of Education, National Center for Education Statistics (NCES): *Academic Libraries: 1996 (2000)*.

- ¹⁶ Kyrillidou, Martha. "Research Library Spending on Electronic Scholarly Information on the Rise," *ARL: Bimonthly Report* 213: 9 (December 2000)
- ¹⁷ Association of Research Libraries, "ARL Statistics 1998-99."
- ¹⁸ U.S. Department of Education, National Center for Education Statistics (NCES): *School Library Media Centers: 1993-94* (1998).
- ¹⁹ Lance, Keith Curry, Christine Hamilton-Pennell, Marcia J. Rodney, and others. *Information Empowered: The School Librarian as an Agent of Academic Achievement in Alaska Schools* (Juneau: Alaska State Library, 1999).
- Lance, Keith Curry, et. al., *The Impact of School Library Media Centers on Academic Achievement*. State Library and Adult Education Office, Colorado Department of Education, 1992.
- ²⁰ Miller, Marilyn, and Marilyn Shontz "Location Is Everything" *School Library Journal* 46 (11):50-60 (November 2000)
- ²¹ *Library and Information Science Education Statistical Report*. Association for Library and Information Science Education [A review of reports from 1990-2000].
- ²² MCI LibraryLINK study, conducted by Nielsen Media Research, April 1998.
- ²³ Estabrook, Leigh and Ed Lakner "Managing Internet Access: Results of a National Survey" *American Libraries* 31:8 60-62 (September 2000).

Utilizing Information and Communication Technology for Education and Development: Issues and Challenges for Developing Countries

Hillar Addo

Hillar Addo has an Advanced University Diploma in Information Science (AUDIS) from the University of Natal Pietermaritzburg, South Africa, where he also obtained his Master's degree in Information Studies. He has a Social Science Honours background and also trained as a teacher. He is presently doing his Ph.D. at the University of Pretoria in South Africa, researching into the World Links for Development (WorLD) Programme, focusing on South Africa. He has taught and worked in his native country, Ghana, and as an expatriate teacher in Zambia. He has also worked briefly as an information technology consultant in South Africa. He may be contacted at: AddoH@nu.ac.za.

Knowledge is like light. Weightless and intangible, it can easily travel the world, enlightening the lives of people everywhere. Yet billions of people still live in the darkness of poverty (*World Development Report*, 1999: 1).

Introduction

In the context of this paper, 'utilization of technology' implies national, regional and international connectivity, which facilitates a



global online exchange of information for education and development. Information and communication technologies (ICTs) have become dramatically and strategically important in modern civilization. These technologies are inexorably integrated, creating new intellectual capabilities by assisting the human brain and thus changing most aspects of daily life (de Horowitz 1993, 171). Countries in the vanguard of the world economy today have shifted emphasis from resources such as land, tools and labour to information and knowledge, and have adopted modern technologies to enhance their education systems (*World Development Report*, 1999: 16). With these systems, and information at the fore,

the developed countries are able to generate wealth and power faster than the slow economies of the developing nations. It is also evident that to innovate and create stocks of information and knowledge is what gives one nation an advantage over the other (Thapisa and Birabwa, 1998).

The crisis in developing countries, however, has been the failure in the delivery of education. Such countries also lack telecommunication networks that can support electronic data exchange (Thapisa and Birabwa, 1998). Developing African countries are, however, warned of the dangers of ignorance or procrastination in infusing ITCs into the socio-economic lives of their citizens now and for the future generation. It has been noted that the underdeveloped nations of the world at present are those which came late to the industrial revolution, while the underdeveloped nations of the future will be those which will come late to the information revolution (de Horowitz, 1993: 171). This warning is reinforced by Zulu (1994: 79) who notes that information technology (IT)¹ has a qualitative edge over human muscle and the mechanical power of the industrial revolution as it leverages brain power.

The Role of Technology in Education

People in developing countries can apply new technologies to a vast range of activities including education, finance, the environment and income generation programmes. Studies suggest that students who utilize technology show increased learning gains compared to those learning in traditional educational settings. Technology also assists in increasing motivation to learn, and attentiveness (*World Development Report*, 1999). According to Todd

(1997: 12) the findings of a study conducted in the United States of America show that students with online education performed better than those without. From an information retrieval and information use perspective, Clyde (1995) also notes that cyberspace has become the most convenient place for Australian teacher librarians who had not known about the Internet three years before. "Such teachers have access to information and a wide range of resources, and could make contact with fellow teachers globally thus enriching the school environment" (Clyde, 1995: 26).

Computer-aided instruction has also expanded substantially with the rapid decline in the costs of hardware and software. And computer technologies today have enormous potential to increase access to education and reduce unit costs. ICT, can enable collaborative education, thus refining, enhancing and developing curricula. They are able to assist in the training of teachers who can be in touch with each other through the Internet. ICTs also afford and enhance distance education, and the dissemination of knowledge and development globally at low cost, thus reducing knowledge gaps both within countries, and between the industrialized and developing nations (*World Development Report*, 1999). The Report notes further that opportunities for leapfrogging are also great for developing countries to take advantage of disseminating knowledge with new wireless technologies that are cost effective, requiring less fixed investment and less maintenance than traditional wire-based ones. And utilizing digitized networks such as cellular phones and teleconferencing also allows for sharing of information and knowledge at lower cost and maintenance, as opposed to analogue networks.

The Role of Technology in Development

The existing disparities between the nations of the third world and the

rest of the world have been noted to a large extent to be a function of technology, as technology was adopted in the agricultural and industrial revolutions by the present wealthy nations to achieve higher productivity and surplus. Technology also significantly enabled the developed countries to add value to their products, thus making them competitive both locally and globally. And while the world has been stratified by the agricultural and industrial revolutions into poor and rich, information technology (IT) has come to redefine the way in which mankind expresses his creativity, with the key element in the whole process being information and how it is manipulated (Zulu, 1994). It has also been pointed out that nations which had no access to new technologies in the past have stagnated, prompting the eminent African scientist Professor F.K.A Allotey to warn that "We paid the price for not taking part in the industrial revolution of the late eighteenth century because we did not have the opportunity to see what was taking place in Europe. Now we see that information technology has become an indispensable tool. We can no longer sit down and watch passively." (Sagahyroom, 1995: 17).

According to Alemie (1998: 181), ICT is changing how we work, play, learn, travel and govern. He notes further that throughout the world, information and communication technologies are generating a new industrial revolution already as significant and far-reaching as those of the past: "... It is a revolution based on information, which is itself the expression of human knowledge. Technological progress now enables us to process, store, retrieve and communicate information in whatever form it may take, unconstrained by distance, time and volume." (Bangemann, 1994: 183).

ICT allows the knowledge, inputs and work products of industries, government and the professions to be captured as digitized information which can then be manipulated, processed, duplicated, stored,

and transmitted at ever lowering cost. Most widely known today is the diffusion of products, with information at the core, via the transmission media of computers and telecommunications (Alemie, 1998: 181). Davidson and Rees-Mogg (1997) predicted that a revolution is eminent, in which governments, welfare and politics will disappear, with sovereign individuals competing in cyberspace - the world's largest economy. This confirms the prediction of Simpson (1985: cited in Zulu, 1994: 79) that one of the megatrends of the future in information provision is that, financial, business, economic trends, scientific and technological information will be available only in electronic format and access will depend upon appropriate technology.

Dube (1988), Menou (1993) and Howkins and Valantin (1997) note that development is underpinned by knowledge and education, which in turn are facilitated by information. Howkins and Valantin present modern principles that underpin economic and social development. The principles draw a parallel with Dube's conditions. These include education, which encompasses literacy and skills, training and the creation of opportunities for all members of society to increase their capacities and quality of life.

One of the hallmarks of ICT is the creation of a global village in which people can communicate and share ideas. This results in the shrinking of the world from a technological point of view, whilst in economic terms the world becomes more and more interdependent (Kalinowski-Jagau, 1998: 20). Many developing countries are taking steps to become part of the global interactive village as ICT-facilitated globalization affords the diffusion of knowledge across the globe, enlightening the lives of people. Through globalization, developing countries are also able to transform education with computer-based multimedia, create more efficient factories, and enhance democracy (Raseroka, 1997: 487).

The World Bank Education for Development Programmes²

Technology is playing a key role in the dissemination of information and knowledge. Many governments in developing countries are unable to afford the utilization of these modern technologies within their present socioeconomic set-ups, the reasons being low national incomes, inadequate human capital, weak competitive and regulatory environments, and socio-cultural differences (*World Development Report*, 1999). Governments in the developing countries which realize the growing need for ICT, and are sensitive to their possible isolation in the global village, have approached organizations such as the World Bank with education as a priority area in aiding future generations (Howkins and Valantin, 1997).

The World Links for Development (WorLD) Programme³

The World Links for Development (WorLD) programme is one of the World Bank's education projects which focuses now and in the years ahead on the promotion of new and better ways of achieving effective learning through the use of technology. The programme began in 1997 as a philanthropic pilot initiative of the World Bank. This was in response to widespread requests from developing countries to assist them in preparing their youth to enter an information age and participate effectively in the global economy of the next millennium. The vision of the programme is expressed in the words of the President of the World Bank James Wolfensohn: "I want... a partnership for creating and sharing knowledge and making it a major driver of development. The challenge is to harness technology to link people together and to leverage its impact for development. Wherever people live... they have one thing in common: They do not want charity.

They want a chance. World Links for Development (WorLD) provides that chance." (Wolfensohn, 1999).

The work of the WorLD programme in participating countries is divided into five major areas, namely:

1. Internet connectivity for secondary schools in developing countries
2. training and educational content to promote economic and social development
3. regional and global partnerships with public, private and non-governmental organizations
4. telecommunications policy advice for the education sector and
5. monitoring and evaluation support.

Gains that Developing Countries will derive from the World Programme

The WorLD programme could enrich the experience of educators and students in industrialized as well as developing countries through collaborative research, teaching and learning programmes. A pilot phase of the programme in more than fifteen developing countries over a four year-period (1997-2000) has just ended. It is hoped to provide the youth of these countries with the knowledge and technological skills they need to succeed in the 21st century and contribute to their countries' development as part of a global economy. The target of the WorLD programme was to link students and teachers in at least 1,200 secondary schools in forty developing countries by the year 2000. Evaluation researches are conducted to determine the extent to which this target is being achieved (Kozma et al., 1999).

The WorLD programme could also help mobilize finance and technical and feasibility studies, leading to the procurement and installation of the necessary hardware and software for secondary schools in developing countries. The programme

also provides technical assistance to promote telecommunications policies and reforms to lower the operational costs of Internet-based education programmes. Finally, the programme offers systematic tracking and assessment of its effects in its member countries, with a focus on improving learning outcomes and the use of information technologies in education in a cost-effective manner.

The WorLD programme affords the opportunity to students - future leaders in developing countries - to have access to modern information and communication technologies. It also establishes global educational online communities for secondary school students and teachers to expand cross-cultural learning opportunities. These communities will enhance cultural understanding across nations, build broad support for economic and social development, train teachers to integrate information technology into the classroom, provide access to information through collaborative projects and educational networks and promote the use and maintenance of the technology itself.

The WorLD programme is also at the forefront of globalization as it links students around the globe from the developed and the developing countries for the purpose of sharing knowledge for development. ICTs will provide countries participating in the WorLD programme with the opportunity of distance learning and curriculum development. And distance learning affords learners at any location the opportunity to interact with teachers and faculty members through satellite, video conferencing and online instruction (Ryan, 1998: 235). Through global networks, the programme provides participating developing countries with the opportunity to be part of the growing flow of information with virtually no restriction. Developing countries also become part of the global economy led by multinational companies which build global networks to secure what is now the fourth factor of production - information (Kalinowski-Jagau,

1998: 20). As the knowledge gap between the rich and poor countries continues to grow, developing nations stand to gain from a World Links for Development (WorLD) global collaborative online education programme which is facilitated by information and communication technology. Such countries, however, face a number of challenges.

Challenges Facing Developing Countries in Utilizing Information and Communication Technology for Education and Development

The Challenge of Ownership

While it is agreed that knowledge leads to development, and technology enhances both knowledge and development, writers such as Menou (1993); de Horowitz (1993), Hobart (1993), Hall (1994) and the *World Development Report* (1999) have questioned the ownership of the knowledge which results in development and the control of technology. This issue remains one of the foremost challenges to developing countries' successful utilization of ICT in their educational and developmental programmes. This is because such countries have little or no control or influence over the knowledge systems of the West or the products and services through which knowledge is disseminated.

Another contentious issue is that what is defined as knowledge in this context affects the determination of development indicators. Many development indicators, and the value judgements based upon them, seem to equate development with the replication of socioeconomic structures found in the Northern Hemisphere. Though efforts have been made⁴ to develop appropriate development indicators aimed at providing a more accurate picture, what remains critical beyond availability of data and calculation methods is the conceptual framework (Menou, 1993). Development problems are also perceived and formulated through the eyes of the West, and "what is sig-

nificantly absent in most public discussions on issues regarding development are the ways in which the knowledge of the people being developed are ignored". Not only is the indigenous knowledge of the underdeveloped countries ignored or dismissed, but the nature of the problem of underdevelopment and its solution are defined by reference to the Western scientific world's ordering of knowledge (Hobart, 1993: 1). Menou (1993) also notes that traditional communication patterns, the information needs of the masses and the lack of true national languages as well as illiteracy are grossly overlooked in the design of information and communication systems. And because of the lack of sufficient information from donor countries on the technology used, professed goals of many development projects do fail (de Horowitz, 1993: 171). Hence many people in the developing countries think that development initiated from the West and funded by donors is rather in the interests of the West than those of the recipient countries.

The political, economic, cultural and social implications of the technological revolution for developing countries have become so immense that technologies are no longer regarded as neutral instruments. They are not neutral because they shape the social choice mechanisms available to the communities that use them (Hall, 1994: 102). Commitment to technology means acceptance of certain social structures and orientations, and implies the adoption of certain values of the technology *as well as the values of its originating source*⁵ (de Horowitz, 1993: 173).

Developing countries tend to benefit only slowly and feebly from technological innovations which have not been designed for their needs. The *World Development Report* (1999) notes that developing countries are able to make steps only after the developed ones have made leaps regarding the use of technology. The basic problem is the gap that separates the reality of underdevelopment from the ideals, theo-

ry and methodology. This gap underlies the foreign educational models that are adopted and followed (de Horowitz, 1993: 173). Turock (1993: 3) therefore disagrees with World Bank policy which is driven by macroeconomic considerations of Structural Adjustment Policy (SAP). His criticisms of the Bank's policies are based on the premise that the squeeze on public educational funding has worsened educational inputs at institutions, and that removing educational subsidies will further deprive capable students from impoverished homes of education, thus creating a polarized elitist society. He concedes, however, that it was better for the World Bank to provide direct support to education than make available funds directly to developing countries, which in many cases fail to account properly for the expenditure of these amounts.

Development should be seen as a long and continuing process. Unfortunately, the concept has been presented in developing countries as telescoping into a few decades what the industrial countries had taken more than a century to achieve. Not only has the spread of wealth not occurred consequently from developing projects, but also, development in terms of pure economic growth has resulted in an intensification of such ills as widening the gap between the "haves" and the "have-nots" (de Horowitz, 1993: 171). The World Bank's intervention in revamping basic education in developing countries can be described as timely. Such interventions should, however, be seen from the perspectives of developing countries and their needs, as such nations now seek development that is indigenous and appropriate to their particular culture and ethos (de Horowitz, 1993).

Other Barriers to the Utilization of ICT in Education and Development in Developing Nations

Notwithstanding the benefits of ICT, the issue of information-poor and

information-rich nations is a reality today, and will continue as the gulf between the former and the latter widens (Cawkell, 1998: 56). Zulu (1994: 80) outlines a number of factors, which act as barriers to the utilization of IT in developing countries, particularly in Africa. These include:

- lack of a good, reliable and adequate infrastructural system including the supply of electricity, a conducive computer environment and telecommunications
- a non-literate population compounded by low status of information intermediaries
- lack of finance (foreign exchange)
- multiplicity of languages (whether IT alone could enable sharing of information)
- lack of national information policies; and the
- rapid technological advances and changes.

Infrastructure

A number of writers have emphasized that infrastructure is a major challenge if developing countries, particularly those in Africa, are to be part of the global village. Menou (1993: 31), for example, indicates that due to high costs, information infrastructures are restricting rather than enabling the flow of information, as they are concentrated in the major cities, thus serving a narrow group of people. According to Hall (1994: 113) the disparity between the information wealth of the United States and the developing world is very striking, with 95 percent of computers being located in the developed world. Raseroka (1997: 489) concurs with Menou that the telecommunication infrastructure in Sub-Saharan Africa (excluding South Africa) is poorly developed. Telephone access in the region is as low as 0.8 percent in Chad. The highest level, in Botswana, is 3.1 percent. Major access points are located in urban areas, mostly capital cities.

With Africa's lack of financial resources, technical expertise and the absence of information policies, the continent runs the risk of being turned into the dumping ground of

obsolete technology from the developed world (Zulu, 1994: 83). The challenges listed above and the fear that Africa may be turned into a dumping ground of obsolete equipment reinforces the need for a thorough and evaluative study of the WorLD programme.

The Lack of Indigenous Knowledge in Developing Countries

Adapting knowledge to local conditions as recommended by the *World Development Report* (1999: 42) reinforces the issue of indigenous knowledge, which has been recognized by writers as important in supporting the development process. Local knowledge is also important in view of the WorLD program's objective of sharing of knowledge between students in the developed and the developing countries.

Warren and McKiernan (1995: 426), argue that the success of development projects often depends on local participation, and familiarity with indigenous knowledge can help change agents to understand and communicate more effectively with local people. Raseroka (1997: 489) also argues that if the promise of the global information infrastructure (GII) in developing countries is to be realized, rural communities, who form the majority, should not only have access to information on the Internet and be able to use it, but should also be able to contribute their own indigenous information for the benefit of their own communities. The *World Development Report* (1999) also acknowledged that there is a need to consider the information of developing countries by allowing them to communicate, which they could do only if their indigenous knowledge systems were developed. The report also identifies illiteracy and lack of trust (due to ethnic and tribal considerations) as likely challenges to education for development projects involving the utilization of ITC. It recommends communication through local channels, thus providing the information that locals need and in a manner in which they could use it.

Globalization as a Challenge to the Utilization of ICT in Education and Development

The United Nations (UN) Secretary General Kofi Annan sums up the challenges of the IT-driven global village, saying that: "Instead of widening our choices, globalization seem to be forcing us all into the same shallow cosmetic culture giving us all the same appetites but leaving us more unequal than ever before in our ability to satisfy them... We have to manage the process of global integration in such a way that everyone can benefit and no one gets crushed..." (Annan, 1999: 75).

Developing countries are thus vulnerable when it comes to globalization. This is because

- the majority, especially those in Sub-Saharan Africa, are classified as least industrialized countries with the lowest per capita incomes
- the majority have a poorly developed electronic environment and lack the finance to achieve interconnectivity on their own
- computers in many instances are obtained as part of project funding through donor agencies, and inherent in the project are the limited uses to which computers are put, as well as a limited skills base, geared only to the project
- technological infrastructure is selective with donor funding, with inherently questionable sustainability, and a cycle of dependency rather than the facilitation of creative partnerships; and
- many are not able to benefit from the lowering costs of technology because of weakening domestic currencies (Raseroka, 1997: 489).

The Way Forward

Zulu (1994) proposes a number of solutions to the African IT situation. Such solutions could be applicable to many developing countries which share similarities with Africa. This paper proposes that education, emphasizing the use of multimedia, vocational training,

political leadership and a national ICT policy with emphasis on research and skills development are key to the effective utilization of ICT in education for development.

Utilization of Multimedia in Education

Education is a crucial element in the whole enterprise of utilizing ICT for development. This is because the educational system is the major source of literate manpower for other sectors of the economy. Pursuing a deliberate policy of infusing IT in the curricula of schools from primary to secondary schools and teacher training colleges (Zulu, 1994: 88) is critical - thus reinforcing the role of the WorLD programme in developing countries.

With abundant illiteracy in developing countries, the utilization of computer-generated multimedia will best facilitate the knowledge process in schools and the overall development process. Multimedia are also a key to knowledge and development in developing countries because little attention has been paid to the forms of indigenous knowledge in such nations. Menou (1993), for example, agrees with the need for a holistic approach in presenting knowledge in developing countries. He notes that the oral tradition, which has been overlooked by information scientists, continues to be a vital component of many developing cultures, and definitions of communication must accommodate the importance of non-written traditions in addition to structured technical information. He notes further that a visual tradition is replacing the oral or written ones in many cultures, or heavily supplementing them. And an entire generation, having been raised with television, videos and computer games, derives its information from still and moving images rather than the printed word (Menou, 1993: 40).

The need for utilization of multimedia in schools in developing countries is also a consequence of inherited colonial education systems devoid of resources and appropriate

pedagogy, and largely characterized by a 'chalk and talk' mode of imparting knowledge (Stadler, 1991:21). Recent technological developments worldwide have also ushered society into a multimedia age, "where children and adults are being asked to handle information from a bewildering variety of sources such as video, CD-ROM, satellite television, and a quiet but insistent multimedia revolution is slowly taking place in schools and colleges" (Thomas, 1996: 4).

Multimedia software stimulates all learning paths by offering information through pictures, written text, sound, animation and video (Gates, 1994: 170). Spranger (1997: 27) writes in an Australian setting that multimedia texts are particularly attractive to many students who are used to the glamour of visual media products available through film and television. Thomas (1996: 5) notes that as multimedia involves putting together different types of information in different formats in a computer linked to text, graphics, still pictures, animations, sound and video, the integrated environment created can be used to tell a story, play a game, present information or do anything else suggested by one's imagination.

In the disadvantaged schools found in many developing countries, the utilization of multimedia can effectively make up for a lack of more traditional facilities and lead to the development of technological skills. However, though learning is more effective through the interaction of the five senses of hearing; seeing; feeling; tasting; and smelling, traditional formal education in Africa has concentrated on the first two senses, with students hearing the teacher and seeing the printed word. The result, which is passive learning, adds a dimension to the learning problem (Hubbard, 1993: 45). Kularatne (1997: 117) therefore proposes that in many developing countries, particularly in Africa, where the majority are illiterate, oral traditional information as well as the mass media of communication of radio, films, and television

are pre-requisites for information purposes.

Political Leadership and National ICT Policy

Progress in utilizing ICTs in education for development will require a national ICT policy, which is lacking in many developing countries. Such a policy will identify information needs and the requisite IT (Zulu, 1994: 89). It will also enhance the opportunity of leapfrogging as new technology can provide better, cheaper links to subscribers, while competing global operators can provide low cost long distance connections at lower cost per capita (Alemie, 1998: 181). The need for pursuing IT policies by developing countries has also been proposed by Raseroka (1997), Alemie (1998) and the *World Development Report* (1999), as a solution to their ICT problems. They have also emphasized the importance and visionary role of government in the process.

The *World Development Report* (1999), for example, suggests that governments should create policies that foster the acquisition and creation of knowledge by tapping global knowledge, creating local knowledge, defining, enforcing and rewarding intellectual property rights. Governments should also increase people's capabilities to absorb knowledge by decentralizing education, give more power to those with most information, focus public resources on those who need them most - the poor and girls - and encourage the use of new technologies to improve the quality of education and broaden access.

Governments in developing countries are also called upon to build capacities for people to communicate by:

- providing access to rural areas and the poor
- making the effective use of information technologies a key thrust of their national development strategy as Malaysia has done by:
 - ensuring competitive and appropriate regulation to

unleash private initiative to provide communication infrastructure and services, and expand the use of new technologies

- ensuring that technological services are extended to remote areas and the poor
- providing and eliciting information to verify quality, monitoring and enforcing performance to support market transactions, and ensuring two-way information flows between citizens and government.

In the United States, former President Clinton and former Vice-President Al Gore were in the forefront of IT utilization in the economy. A proposal by the President of South Africa for an information community is a step in the right direction and bodes well for South Africa (Mbeki, 1996). There is the need to develop political leadership in the ICT sector in many developing countries as well as promoting proactive ICT policies. Governments need to prioritize the issue of ICT, not only in education, but also for all aspects of human activity. Governments should also provide strategies and create a conducive ICT-enabling investment environment to encourage non-governmental organizations (NGOs), local ICT enterprises, and local technical and engineering service enterprises.

Encouraging Research

Research is one of the most important means by which knowledge is created. The role of scientific research in creating high yielding crops and developing technology for agriculture during the agrarian revolution is a case in point. Encouraging research by national governments will explore the issues relevant for advancing local knowledge and the utilization of ICTs for development in developing countries. Research will also provide data for monitoring and evaluation of existing ICT projects, provide information for local and international mobilization of funding and support, and for policy options. The fact that the initial momentum with

which the PADIS project took off in 1980 had waned by the 1990s (Zulu, 1994: 83) points to the need for monitoring the WorLD programme so as to highlight likely pitfalls of the project and provide prompt intervention. Universities in developing countries could form consortia to address the problem of limited research in the ICT sector.

Interventions Regarding Globalization

There will be a need for professional intermediaries in all developing countries, who are sensitive to rural as well as community needs, and are also linguistically and technologically proficient to sensitize the communities on issues relating to globalization. There will also be a need for an informed technocracy and political will which will balance the choice between the provision of information for education and the non-literate rural communities, or both, and the need for constant training and retraining of information workers especially in the application of IT. This is because the availability of technological infrastructure alone does not necessarily translate to its exploitation, as it requires knowledgeable human intervention (Raseroka, 1997).

The role of school media teachers in the utilization of ICT for education and development, particularly those in Africa, cannot be overstated. They could play a dual role of keeping the schools' hard copy information resources as well as technological and electronic ones. Todd (1997: 12) believes that teacher librarians could play key roles in the sound understanding of computers and information technology centring on developing students' knowledge and skills. Silva (1995: 23) also notes that school librarians have been the key resource persons who offered advice, instruction, and even technical support to teachers. It is argued that the nature of their training gave them an edge over other teachers with respect to the use of ICT and information. As ICT services are seen daily as market driven, school librarians could serve

as intermediaries between ICT and pupils in developing countries where schools with declining budgets are not able to hire teachers or technicians to function solely in IT roles.

Skills Development

McMillan (1993: 46) recommends a commitment to technology as a priority in South African education. The *World Development Report* (1999: 42) supports the pursuit of technical as well as vocational skills in schools. Referring to the success story of Korea, the report notes that countries with a more technically skilled labour force do have a faster growth. The report recommends the adaptation of knowledge to local conditions but argues that the education system must reach out to the outside world as it becomes a player in the global market, and that adopting newly based information technologies and related skills could enhance distance and lifelong learning. These recommendations thus support the aims and objectives of the WorLD programme.

Establishment of Centres of Excellence

A study of the utilization of computers in a schools environmental education project in the greater Pietermaritzburg area of South Africa (Addo, 1999) established that a large number of learners and educators could not use computers effectively because they had not attained the required computer and information retrieval competencies.

Establishing centres of excellence in developing countries as has been adopted in South Africa will help tap, train and develop skills from the community and also promote success stories of ICT utilization. Such centres are also critical in view of findings by Sagahyroom (1995) that in Kenya and other developing countries the quality of inservice training was crucial and more important than the nature of hardware and software used, in ICT utilization. It is also becoming increasingly apparent that prompt computer skills development will provide relevant skills needed in

the advent of multimedia and other sophisticated computer tools in future education.

Conclusion

Information and communication technologies have become indispensable tools for education and development today. The truth of the matter however is that such countries especially those in Africa are not only at the negative end of the digital divide but lack basic education resources for development. The challenges facing developing countries are so enormous that gains from technology-enhanced education seem skewed in favour of the developed nations. Developing countries will have to develop a strong commitment to research and the enhancement of local knowledge or will always have to rely on the developed nations for knowledge and development.

The state of the economies of developing countries, particularly those in Africa, requires massive interventions in the form of externally funded ICT projects and programmes. Interventions such as the World Links for Development (WorLD) programme need to be emulated and replicated to sustain any gain made by earlier funded projects. Funding agencies should then form partnerships with government, local non-governmental organizations (NGOs), Universities and the private sector in rolling out their projects.

External interventions will require recipient countries to create conditions that will attract local and foreign investment in computer equipment. There is also a need on the part of government leaders in developing nations to adopt proactive leadership and policy measures, which will empower the local private sector and NGOs to initiate and implement ICT programmes and projects in schools. Monitoring and evaluation of projects will be required to identify pitfalls and provide information that will help sustain and improve upon ICT projects,

thus avert the failures that characterized earlier multilateral funded ICT projects in developing countries. Such measures will not only go a long way in resolving the educational resource problems in the developing counties, but also provide the trust and confidence required by the donor community that such countries can now be taken seriously.

Notes

- 1 IT and ICTs are used interchangeably in this paper to refer to computers and communication accessories that facilitate information storage and dissemination.
- 2 Information on the World Bank Education programme has been taken from the Bank's website: <http://www.wb1n18.worldbank.org/HDNet/HD.nfs/SectorPages/Education?Opendocuments>. May 13 1999.
- 3 Information on the WorLD programme is taken from the World Links for Development website: <http://www.worldbank.org/worldlinks/english/html/backgrnd.html>. May 13 1999.
- 4 Such efforts have been, the quality of life indicator developed by Morris (1979), the United Nations Research Institute for Social Development or its human development indicators (UNDP, 1992). (both sources cited in Menou, 1993).
- 5 Emphasis by the author.

References

Addo, H. 1999. An Investigation into the Role of Microcomputers as Information Retrieval Tools in the Greater Pietermaritzburg Schools' Water Audit Projects. Unpublished MIS thesis, Department of Information Studies, University of Natal, Pietermaritzburg.

Alemie, L. 1998. "How is Information Technology Shaping the Economy and Society?" *Information Development*, Vol. 14 (4): 181-183.

Annan, K. 1999. "The Cultural Search Engine." *Civilization*, June/July. p. 75.

Bangemann, M. Europe and the Global Information Society. Unpublished Recommendation to the European Council, 26 May 1994.

Cawkell, T. 1998. "The Information Age - for Better or Worse." *Journal of Information Science*, 24 (1): 56-58.

Clyde, A. 1995. "Computers in School Libraries: the Internet and Australian Schools." *ACCESS*, 9(2): 26-28.

Davidson, J. and Rees-Mogg, P. 1997. *Sovereign Individuals*: London: Macmillan.

de Horowitz, G. 1993. "Literacy and Development in the Third World: Could Librarianship Make a Difference." *IFLA Journal*, 19(2): 170-180.

Dube, S. 1988. *Modernization and Development - the Search for Alternative Paradigms*. Tokyo, United Nations University. ISBN 0-86232-728-8.

Gates, B. 1994. "Multimedia Technology and Education. Progressive Products and Powerful Promises." *Booklist*, 90.

Hall, B. 1994. "Information Technology and Global Learning for Sustainable Development: Promise and Problems." *Alternatives*, 19:99-132.

Hobart, M. (ed.). 1993. *An Anthropological Critique of Development: the Growth of Ignorance*. Routledge, London. ISBN 0-415-07959-4.

Howkins, J. and Valantin R. (ed.) 1997. *Development and the Information Age: Four Global Scenarios for the Future of Information and Communication Technology*. Ottawa: IDRC. ISBN 0-88936-835-X.

Hubbard, G. 1993. "Multimedia." *School Library Media Quarterly*, 21: 45-48.

Kalinowski-Jagau, K. 1998. "Organizing and Managing Development Information: a Personal View from Germany." *Information Development*, Vol. 14 (1) 20-25.

Kozma, R. et al. 1999. *World Links for Development: Accomplishments and Challenges. Monitoring and Evaluation Annual Report*. California, Center for Technology International.

Kularatne, E. 1997. "Information Needs and Information Provision in Developing Countries." *Information Development*, Vol. 13 (3) 117-121.

McMillan, C. 1993. "Follow the Success Formula." *Financial Mail*, Vol. 127 (4) 46.

Mbeki, T. 1996. The Information Community and the Developing World. Unpublished paper on the need for developing an information community in South Africa.

Menou, M. (ed). 1993. *Measuring the Impact of Information on Development*. Ottawa: International Development Research Centre. ISBN 0-88936-708-6.

Raseroka, K. 1997. "Challenges of an Interactive Environment in the Context of Developing Countries in Sub-Saharan Africa." *International Infor-*

- tion and Supporting Information Skills Development." *ACCESS*, 11 (2): 27-29.
- Warren, M. and McKiernan, G. 1995. "A Global Approach to Documenting Indigenous Knowledge for Development." In: Warren M. Slikkerveer, Jan and Bronkensha, D. (eds.) *The Cultural Dimension of Development: Indigenous Knowledge Systems*. Intermediate Technology: London. ISBN 1-85339-2510.
- Wolfensohn, J. 1999. Statement issued by the President of the World Bank James Wolfensohn. www.worldbank.org/worldlinks/english/html/bac kgrd.htm. May 13 1999.
- World Development Report: Knowledge for Development 1999. World Bank: Oxford University Press.
- Zulu, S. 1994. "Africa's Survival Plan for Meeting the Challenges of Information Technology in the 90s and Beyond." *Libri*, 44 (1): 77-94.
- mation and Library Review*, Vol. 29, 487-499.
- Ryan, J. 1998. "Measuring Costs and Benefits of Distance Learning." *Journal of Library Administration*, Vol. 26 (1/2) 235-246.
- Sagahyroom, A. 1995. "Computer Education in Developing Countries: the Sudan Case." In: Tinsley, D. and van Weert (Ed) *World Conference on Computers in Education VI (WCCE'95). Liberating the Learner: Proceedings of the Sixth IFID World Conference on Computer Education*. London, Chapman.
- Silva, M. 1995. "The Process of Introducing Internet Based Classroom Projects and the Role of the School Librarian." *Education for Information*, 13: 243-252.
- Sprainger, N. 1997. "Evaluating Multimedia Resources: Strategies for Selection and Supporting Information Skills Development." *ACCESS*, 11 (2): 27-29.
- Stadler, C. 1991. "Competing Visions for School Libraries in South Africa." *Innovation*, 3: 15-23.
- Thapisa, A. and Birabwa, E. 1998. "Mapping Africa's Initiative at Building an Information and Communication Infrastructure." *Internet Research: Electronic Applications and Policy*. 8 (1): 49-58.
- Thomas, M. 1996. "Viva the Multimedia Revolution." *Informedia*, September, 4-5.
- Todd, R. 1997. "IT and Learning: a Never-Ending Beginning." *ACCESS*, 11 (1): 11-14.
- Turock, Ben. 1994. "World Bank and Education: Re-colonization of Africa?" *Matlhasedi*, Vol. 12 (1) 3-5.

Join the New IFLA Section on Reference Work

The Section on Reference Work invites members of IFLA to join this New Section which brings together practitioners, educators and researchers in the field of library reference service to exchange ideas, knowledge and experience. The Section is particularly focused on the role of reference professionals in the new electronic environment. Topics of importance to Section members include:

- Organization and staffing of reference services
- Ethics and the provision of high-quality service
- The impact of the digital environment
- Reference collections in an electronic world
- Continuing education of reference librarians.

The Section organizes meetings and workshops during the annual conference and in the IFLA Regions, develops international standards and guidelines for service, and sponsors research and pilot projects to promote high-quality reference service.

For more information on this Section's work, contact:

Ms. Annsofie Oscarsson
Umea University Library, S-901 74 UMEA, Sweden
Tel. +(46)(90) 7865491, Fax +(46)(90) 7867474, E-mail: annsofie.oscarsson@ub.umu.se

To join this section, please contact IFLA Headquarters:
Ms Kelly Moore, Membership Manager
P.O. Box 95312, 2509 CH The Hague, Netherlands.
Fax: +31-70-3834827, E-mail: kelly.moore@ifla.org

What Every Librarian Should Know about Intellectual Freedom: a Personal View

Marianna Tax Choldin

Marianna Tax Choldin is C. Walter and Gerda B. Mortenson Distinguished Professor in the University of Illinois' great library in Urbana. In 1991 she became the founding director of the Mortenson Center for International Library Programs. She has traveled all over the world to work with librarians, promoting improved library services, new technologies, and especially freedom of information. The Mortenson program brings librarians to Urbana-Champaign, some for short courses and some for extended periods of study. To date more than 500 Mortenson Associates from seventy-four countries have spent time on the campus. The Center has initiated new cooperative programs in Russia, Central America, Haiti, Georgia, and South Africa and is exploring partnerships in Singapore and Colombia. In conjunction with her activities as Mortenson Professor, she has chaired the multifaceted library program of the Soros Foundation, which has distributed millions of dollars to libraries and librarians in more than thirty countries.

Educated at the University of Chicago, Marianna Tax Choldin received her bachelor's degree with Phi Beta Kappa in 1962 and her doctorate in 1979. She has been on the faculty of the University of Illinois-Urbana for thirty-four years. She is an adjunct professor in the Graduate School of Library and Information Science, and has been director of the Russian and East European Center and head of the Slavic and East European Library. In her own research Professor Choldin studies censorship in Russia, the Soviet Union, and the post-Communist world. The author of numerous articles and books, she is best known for *A Fence Around the Empire: Russian Censorship of Western Ideas Under the Tsars* and *The Red Pencil: Artists, Scholars, and Cen-*

sors in the USSR (co-edited with Maurice Friedberg). In 1995 she was elected president of the American Association for the Advancement of Slavic Studies. In 2000 the government of Russia awarded her the Pushkin Gold Medal for contributions to culture.

This paper was presented as the key note address at the 9th BOBCATSSS seminar at Vilnius, Lithuania 29-31 January 2001. The author may be contacted at: Mortenson Center for International Library Programs, 142 Undergraduate Library MC-522, 1402 W. Gregory Drive, Urbana, Illinois 61801, USA. Tel. +1 (217) 244-1898. Fax: +1 (217) 265-0990. E-mail: choldin@alexia.lis.uiuc.edu. Website: <http://www.library.uiuc.edu/Mortenson>.

I am so pleased to have the opportunity to talk with you today about a topic very close to my heart, intellectual freedom. And I



am particularly happy to have this conversation with future librarians and information specialists and with their teachers here in Lithuania, because while these issues are important in every country, at all times, and for all people, I think they have special resonance here, now, and for professionals in our field.

Last October in Berlin I discussed these issues with German colleagues, and last week in Moscow and Tver I spoke about them to Russian audiences. I think the problems confronting people interested in building civil society in Germany (particularly the former German Democratic Republic), in Russia, and in Lithuania today have some similar dimensions. All three countries must deal with a highly complicated and often troubling past. All must continue to develop institutions and ways of thinking that are committed to openness and tolerance. But throughout this talk I'll remind you that the problems I am discussing are problems for *all* of us: in the United States, in Norway, and in every country represented here.

Let me begin, as I did in Berlin and in Russia, by giving you a rather lengthy self-introduction, because I think it takes a certain amount of *chutzpah* (a Yiddish expression that I'll translate roughly as "audacity") for me to reflect on other people's history and then to offer advice to them about something as serious and complex as intellectual freedom. So before doing so, I want to assure you that I have thought long and seriously about these issues as they apply to other parts of the world as well as to my own. I have a longstanding and sympathetic relationship with the former Soviet Union, as well as with Germany, and can claim at least some understanding of the history and culture of both regions. I try to educate myself as best I can about the rest of the world. Through my work with the Mortenson Center at the University of Illinois and with the Soros Foundation, and through my own life experiences, I've learned quite a bit about some other regions—Central America, Haiti, South Africa, Bangladesh, and Singapore, for example—but I want to assure you too that I accept my own limitations. It is for you to listen to me and decide if anything I propose can, or should, be adapted to conditions in your own countries.

My subtitle for this talk, "a personal view," is very important. I believe that a commitment to intellectual freedom and to its corollary, tolerance, comes from deep within each individual. We are not born with prejudice, or with tolerance; we learn these feelings from our families and friends, from our colleagues, from people we may not know but respect, and from our life experiences. However acquired, the commitment to intellectual freedom and tolerance must be a strong and personal one. In my view it is vital that as many librarians as possible have this personal commitment, because without it, it will be very difficult for us to make our institutions truly open and tolerant places where people will really have full access to information and knowledge. I encourage each of you to explore your own personal history, and discover how you feel about

intellectual freedom: it is an interesting and useful exercise.

Here, then, are some chapters from my own history. I am a scholar and a librarian, educated as a Russian specialist, and I have spent the past twenty-five years studying censorship in Russia and the Soviet Union. I should add that my personal roots are in the Russian empire: my grandparents were Jews who left what are now the countries of Lithuania, Belarus, and Ukraine around 1900 to settle in the United States. I have always followed with great interest the history of Jews in this part of the world; indeed, I often feel haunted by what has happened to my people here. I was born in 1942, in Chicago, a good, safe place for Jews then and now. What would have been my fate had my grandparents not emigrated? I would have been born, in 1942, near Vilnius (Vilno, as my grandmother called it) or Minsk or Kiev...would I have survived? Probably not. I think too about the anti-Semitism experienced by Jews in this region over the past few hundred years, and while I'm thankful that I personally escaped it, I feel deep sorrow for its victims, who are in a sense my own family. It pains me that it has been so difficult, even impossible, to live what I consider a "normal Jewish life" in this part of the world, by which I mean the freedom to be citizens of a country and Jews in the way that I am an American Jew. This is a topic to discuss on another occasion.

As I am speaking about myself as a Jew, let me tell you something too about my connection to Germany, which began in my childhood. I studied German in school, and in 1958, at the age of sixteen, I was part of what I am told was the first group of American secondary school students after the war to make an extended visit to the Federal Republic of Germany. As many of us were Jewish, there was special interest in our group on the part of the federal government, local Jewish-Christian societies, and other civic groups committed to normalizing relations between Jews

and Germans. I spent three summers in West Germany, living with families in Bielefeld and Esslingen and talking frankly and openly with them about Jews and Germans and the war. To this day my family and I maintain close contacts and friendships with my German families.

My story may not sound unusual to you, but believe me, it is unusual in my country. Most American Jews have a very uncomfortable relationship with Germany, and many have chosen never to visit that country, even though they may travel widely in Europe. When my parents told family and friends that they were sending me to *Germany*, people responded with disbelief and, often, with disapproval. "How can you send her to Germany," they asked? My father, an ethnologist, and my mother, who had been raised in a German-speaking village of Swiss immigrants in Wisconsin and had studied German at the university, had no trouble answering this question. They believed firmly that people must be judged as individuals; that the post-war generation - my generation - had to begin a healing process; and that much good would come out of my exposure to German children my own age and to their parents. My older sister had spent the preceding summer living with a family in Vienna, and her experience had been very positive. My experience was overwhelmingly positive, and certainly changed my life. Without even thinking about it consciously, I learned that people must be judged as individuals, and that the Nazi phenomenon was anything but simple.

If my time in Germany was a life-changing experience, so was my introduction to Russia, the Soviet Union, and the Communist countries of Eastern and Central Europe. When I was fourteen my father introduced me to a group of Soviet anthropologists whom he had brought to the States for a conference. I believe this was one of the first - perhaps the very first - group of social scientists from the Soviet Union to visit the US after Stalin's death. One of the visitors found me

one day reading an abridged English translation of *War and Peace*.

I must add here that I almost never read abridged versions of anything! I remember taking part in a conference for school librarians when I was a small child, perhaps seven or eight years old, at which I talked about how much I disliked being given abridged or simplified reading material. As long as I can remember I have disliked any interference between the author and me, the reader.

Disliking abridgments as I do, I can't remember why I was reading one that day - probably it was the only paperback version of *War and Peace* I could find to buy. My Russian anthropologist scolded me: "Learn Russian," he said, "and read Tolstoy's masterpiece in the original. And read the whole book, not an abridged version!" Later, when I began to study Soviet censorship, I realized the irony of this advice coming from that source: In 1956 most Soviet readers could read most Western works only in Soviet-made translations that had been censored considerably by the time they were published. But I learned about that only years later. Meanwhile, his remark stayed with me and within three years I was studying Russian at the University of Chicago.

The study of Russian language, literature, and history brought me into contact with what I came to think of in those years as "another planet," the Soviet world. In the late 1950s, when I began studying Russian language, history, and culture; in the late 1960s, when I became a Slavic-specialist librarian; and through the 1970s and early 1980s it really did seem to me like another planet.

I had seen the border separating the two Germanys, complete with watch towers, soldiers with machine guns, and barbed wire, in 1958, and in 1959 I had traveled through the German Democratic Republic by train and visited East Berlin very briefly. My first visit to the Soviet Union, Poland, Hungary,

Czechoslovakia, and Yugoslavia was the following year, in 1960. This and many subsequent visits during the Soviet era confirmed my impression that the Communist countries of Eastern and Central Europe really were deeply different from my own and from other countries I knew. I saw the Berlin Wall only once, in the late 1970s. It was, for me, a physical manifestation of that "no man's land" one had to cross to get from one planet to the other. I should add that I visited Lithuania for the first time in the mid-1990s, and by that time the planetary divide was almost a thing of the past.

In the mid-1970s I began to study intensively the phenomenon of censorship in imperial Russia and the Soviet Union. What I learned about Soviet censorship was, of course, applicable in its general outlines to the other countries in the Soviet sphere, even though each had its own special characteristics as well. Perhaps the most interesting thing I learned about Soviet censorship is that although it parallels in some important ways the traditional form of censorship to be found in imperial Russia, the Hapsburg Empire, the kingdom of Prussia, and elsewhere, it differed dramatically from these systems. The traditional form was acknowledged publicly; national leaders and many educated people supported censorship openly. In contrast, the Soviet form was unacknowledged publicly, even denied, while at the same time permeating culture and intellectual life so thoroughly that nothing, no one, was untouched by it. Every writer, editor, artist, scientist, librarian knew not only what he or she must not produce, but also what he or she *had better* produce in order to continue in one's profession. Direction came, indirectly but very clearly, from the top through all descending levels to the bottom: from the Central Committee of the Communist Party of the Soviet Union through all its structures down to the individual. I call this phenomenon "omnicensorship," a term and concept that, I am honored to note, Russian colleagues are now accept-

ing and using in their analyses of Soviet censorship.

Now the Wall is a relic; Germany is one country and Berlin, one city; the Soviet Union is gone, Lithuania is independent. But the memory of Nazi times and of the two-planet era is still fresh in Germany and in Russia and in Lithuania, and is kept fresh by the need to memorialize the events of the 20th century, both Nazi and Communist. I am well aware that in Germany, Russia, Lithuania, and other countries of the region there is lively and ongoing debate about how to represent the past physically, through monuments and museums. This debate goes on to some degree in every country, because all of us have a past with which we must contend, and that past is always a mix of the glorious and the infamous. We are all happy to memorialize the glorious but are reluctant to do the same for the infamous. And even if we want to do the right thing, we agonize over the best way to do it.

How to describe the indescribable? Some Americans have tried to rewrite our history and forget, conveniently, that we brought thousands of Africans to our country as slaves. In one open-air museum in our South, slave cabins were identified as "workers' cabins" (until a public outcry forced the museum managers to identify them properly). In Germany people have had to deal with the horror of the Nazi era as well as, in the East, some nightmares from the Communist era. In Russia, many people have not come to terms with the Soviet past - including crimes of the Stalin era, but not only those - and prefer to forget about them. I assume that the same may be true here in Lithuania, where World War II brought its own special horrors and complexities. I repeat, we *all* have this problem. But we all have an obligation to future generations to explain our pasts as they were, unbeautified. Americans must call slaves slaves; Germany must deal with its double burden, the Third Reich and the GDR; Russia must commemorate the Gulag and the victims of the Soviet era; and

Lithuania must come to terms with its not uncomplicated past.

A little more than ten years after the changes Germans and all of us are horrified by outbreaks of anti-Semitism, violence against foreigners, and other deeply unpleasant eruptions in that country. Incidents of this kind occur in Russia too, and probably in Lithuania, as well as in other countries. Many decent and intelligent people in all countries are searching for the right way to deal with these phenomena. I am certainly not here to give you solutions to these most difficult problems-I would not be so presumptuous - but I would like to offer some thoughts that grow out of my interest in and concern for you, my colleagues, and drawing on my years of thinking about these issues in the former Soviet world as well as in my own country. I am particularly concerned that librarians and information professionals and educators in our field think about these questions, as we are, like it or not, on the front lines in our communities - or, if we are not, we should be!

As the Soviet Union was collapsing and it became possible to talk about the hitherto forbidden topic of censorship, I began to have conversations with Russian colleagues about how to move forward. "What do you do in the United States," they asked me: "You have always been a democracy: surely you don't have censorship! Tell us about your system. How do you guarantee freedom of expression?"

To answer this question I had to do a lot of reading and thinking about my own country, and what I learned both comforted and disquieted me. I realized that our greatest strength lies in the very explicit legal protection for freedom of expression embedded in our Constitution, particularly in the First Amendment, which states that "Congress shall make no law... abridging the freedom of speech, or of the press...". From its beginnings in the 18th century American democracy has been predicated on the assumption that we must have an informed citizenry. This means

that people must have access to various points of view on all issues. This means that libraries have a special role to play in providing that access. This means that libraries have pleasant and unpleasant literature on their shelves. This means that you will find Hitler's *Mein Kampf* and other hateful books of its kind in our libraries. Indeed, *Mein Kampf* itself has not been much of an issue with us. During the McCarthy era the *Communist Manifesto* and other classics of Communism were challenged, and books promoting "scientific racism" - claiming to prove that blacks were inferior to whites - have infuriated and frightened many Americans at various times in our history, to mention just two examples from my own country.

But the fact that speech is protected does not mean that it is unchallenged - far from it! In my country the challenges rarely come from the top, from the government; rather, they come from the bottom, from a myriad of interest groups in any community, large or small, based on religion, or race and ethnicity, or gender, or various causes: the environment, animal rights, the abortion question, smoking, alcohol, and others.

Some of these interest groups are on our political left, and some are on the right. A number of years ago conservatives accused those on the left of promoting a package of ideas that the conservatives labeled Political Correctness. Their claim was that the groups on the left had made it impossible to have any kind of open discussion about a number of these issues, and particularly about three: race and crime, homosexuals and AIDS, and a variety of male-female relationships. Indeed, our country has become so polarized on some of these issues that no meaningful public discussion is possible anymore - instead, each side mouths slogans and seems incapable of listening to the other. I'm grieved to say that we experience deadly violence from time to time, as in the case of abortion rights. For those of us committed to free and open discourse,

this is a discouraging state of affairs.

The aim of the various interest groups in our country is always the same, and indeed, it is the aim of all censors, everywhere, at any time: to "protect" citizens, especially children, from ideas they deem harmful and wrong. These "harmful" ideas usually have to do with sex, religion, or race and ethnicity. Each group claims to know "The Truth" and wants to protect everyone else from the "dangerous lies" embodied in a particular book, website, exhibition, play, etc; so the group demands that a library remove the book from the shelf or place filters on Internet terminals, that a museum close an exhibition, that a theater cancel its production of a play, and so on. Because of our First Amendment and legal system these demands are usually rejected, but there are always new ones: the tension is steady and unremitting. Year after year after year there are struggles over these issues.

How do Americans deal with these tensions, and what part, if any, of our experience might be useful to citizens of other countries? Let me make a few suggestions, recognizing always that you know your own situations better than I possibly could. Perhaps there is something in what I say that you might find useful: I hope so!

First - and this is the most painful and difficult suggestion, but also the most significant - *provide access for everybody to all information*. Yes, this means *Mein Kampf* too, and other books like it, in the libraries and bookstores. A mature democracy should be strong enough to *deal* with threats rather than to forbid them. We all know that forbidden fruit tastes the sweetest. Why not put *Mein Kampf* in its place on the shelf? It will soon gather dust, as our copies do. Very few people really want to read such books, and those who do will find it hard going. Anyone who truly does want to read *Mein Kampf* will find a way to do so, of course. And yes, some Americans do continue to read "hate litera-

ture" of various kinds. Why not demystify the process and these books by making it a routine matter to find them in the library? I reminded my German colleagues that the writings of Nietzsche, Marx, and, yes, Hitler too, are part of the German heritage, for better or for worse, and told them that in my view, those works should be on library shelves along with the writings of Leibnitz, Schopenhauer, and Hegel. The same is true, in my opinion, of the works of Lenin and Stalin, and of *The Protocols of the Elders of Zion*. They are part of the Russian heritage, for better or for worse, along with Kliuchevskii, Lomonosov, and Karamzin. And similar examples can be found in every country - the heights of our cultural heritage and the depths. *All* belong in our libraries.

Second, *present these controversial materials actively, thoughtfully, and responsibly*. If you are going to provide free access even to unpopular and unpleasant ideas, then you will want to provide for people clearly and objectively the historical and cultural context in which they should be understood. You can do this in a variety of ways. You can organize exhibitions, lectures, and informal discussions in libraries and museums, or programs on radio and television, through presentations in schools, etc. We need to be active, not passive, in educating ourselves, our children, our communities. *Mein Kampf* and the *Protocols of the Elders of Zion* on the library shelf become not a threat, but, rather, an opportunity to think individually and collectively about terribly important issues and, in so doing, to begin to heal our wounds. The presence of nasty websites is not a reason to put a filter on the Internet, but is, rather, a reason for parents to take positive action: to surf the Internet with their children and to talk about what they see in terms of their own values. Children, as we know, will find their way around the Internet with or without us parents. Why not be there with them from the very beginning?

I know many of you do this sort of thing already in your countries - we

do also - and sometimes such activities are overdone. People hear and see too much about the Holocaust or the Gulag or slavery: the reaction becomes mechanical, and the message is lost. This is a problem for all of us. But we must continue to try; we must be creative and innovative. We must enlist our best minds, our best artists and writers, our best teachers, and we must not give up.

Let me give you one of the best examples I have seen anywhere, in Russia. Memory is preserved very effectively, in my view, at the Sakharov museum, which I visited for the first time in November 1998. In the museum the curators have hung filmy panels depicting symbols of ideal socialism on one side of a corridor. The panels are swaying gently, not quite real. Across the corridor, mounted on boards, are very real documents, severe black type on white paper, chronicling the realities of Soviet life from the Gulag perspective. Nearby an overwhelmingly stark and somber hall is filled from floor to ceiling with black metal shelving divided into compartments, each containing a photo of a male or female victim along with hundreds of file drawers filled with alphabetical lists of the names of people shot. Here and there an artifact from the camps decorates a shelf - a cell window, a pickax used in the mines, a prison jacket. I expect most of you have visited the museum and seen this display, or others like it somewhere in the world. I shall mention some other such museums in a moment.

I would like to share with you my thoughts about another site in Moscow that could be most useful. Some of you may have similar sites in your countries. On the same day I visited the Sakharov museum, I was also taken to see what I call the "garden of displaced sculptures," where Soviet-era statuary has been gathered and is on display throughout the park. I know there is also a park like this in Budapest, which I have not yet seen. For me, this garden is a powerful symbol of the preservation of memory, even when it is bad memories we must pre-

serve. Of course, not all these sculptures evoke bad memories; some are honestly patriotic, or beautiful, or sad, or funny.

Statues and monuments play very important roles in a nation's culture and self-image, and reveal much about a society at a given moment in its history. They are enveloped in strong and emotion-filled auras that may not survive changing epochs, so it is important to accompany these pieces with commentary describing their imagery and placing them accurately in their time and place. There is no such commentary in the Moscow displaced sculpture garden, at least there was not when I visited the garden: the sculptures speak for themselves, often eloquently, but future generations may not understand their language. I hope someone will provide commentary.

I want to tell you also about another museum, an unparalleled example of the complexity of memorializing our pasts. In summer, 1998, I visited Buchenwald Concentration Camp (outside Weimar, in the former GDR) for the first time. It was a grueling experience for me, but one I am so glad to have had, both as a Jew and as a scholar. In October I told my German audience that perhaps they didn't realize what a treasure they have there, especially if they haven't visited recently. I know that GDR school children made obligatory visits, the worst kind for children anywhere, and probably work groups had to visit as well, with results that were no less negative. The entire site is a museum that invites, even compels, interaction with the viewer. The layers of history portrayed there are truly dramatic. First, the Nazi reality. Second, the GDR overlay, with the official GDR interpretation of history and gigantic monuments in the Socialist Realist style - much that is well said and much that is distorted, or not expressed at all. And for me, the most chilling display of all is in a wooded area behind the Nazi buildings where mass graves were discovered recently - the unmarked graves of Germans killed after the war when

the camp came under Soviet control. Each grave is marked by a simple steel pole. This patch of forest, studded with poles, speaks eloquently and needs very little explanation. Research is underway to learn more about the full history of Buchenwald, and one can buy some books in the museum shop.

Yesterday some of us visited the KGB Museum here in Vilnius. This museum, like Buchenwald, is especially powerful because it is located *on the site* it commemorates. Robben Island, off the coast of Cape Town in South Africa, where Nelson Mandela was imprisoned for twenty-seven years, is another such on-site museum. The Holocaust Museum in Washington, the Yad Vashem in Jerusalem, the Sakharov Museum in Moscow - all are effective and extremely important. But if you have in your city or country a Robben Island, a Buchenwald, a KGB Museum, you have the opportunity to experience a place where the space in which you move, the floor on which you stand, the walls surrounding you, speak with a mute eloquence no ordinary museum can match. And there can be spoken eloquence too, of incredible force, as on Robben Island and in the KGB Museum where, at least for this generation, the museum guides are former prison inmates who describe to you their lives as they walk with you through the place.

If I were you, I would enlist these sites in the struggle against prejudice, intolerance, and violence. And I would try not to do it in a rigid, humorless, mechanical, and preachy way, the trap all of us so often fall into when we attempt to teach weighty topics. Here is where those creative and innovative minds should come to the rescue, and help make the programming attractive and interesting.

Third, *be willing to satisfy yourself with individual action, and resist the temptation to dictate to others.* The more I think about democracy, the more I realize how very *difficult* a form of government we have chosen. It is so much easier, so much tidier, to forbid books, to put filters

on the Internet, to ban plays. It is so much harder, so much more complicated, to permit all books and Web sites and plays, and then just to ignore the ones you don't like. It is so much harder (although it seems as though it should be easier!) for each person to say "*I choose not to read this book, or look at this site, or see this play.*" This is something we can teach our children too, by open and frank discussion and by our example, and we can reinforce this message in libraries, museums, schools, and other public places.

I want to stress that it is critically important that we librarians and information professionals develop policies to guide our institutions in providing access to controversial materials, and it is best if we do so *before* the problems begin, so we are ready for the challenges when they come. And the challenges will come, I assure those of you who have not yet had to deal with them! The American Library Association's Office of Intellectual Freedom is a wonderful resource for people concerned about this issue, and I recommend to you the Office's website, as well as a number of other very useful ones listed on the website handout. This is only a selection, and I'm sure you will add other sites to this list. I hope too that some of the titles on the book list will be useful to you; again, many titles could be added. Please be aware that no one can predict when and where these problems will arise - it may be in your town, in *your* library, so *you* must be ready to respond.

Finally, I urge you to begin talking about these issues with the very youngest children. *No one is too young to understand the concepts of free expression and tolerance.* Last September I was in the main public library in the southern Russian city of Rostov-on-Don, which, as you may know, neighbors the war zone of Chechnya. It is a multi-ethnic, multi-cultural area, and many civic groups there are concerned about tolerance. One such group has been working with children, and had mounted an exhibition in

the library of these children's drawings illustrating many of the articles of the United Nations Declaration of Human Rights. It was a lovely exhibition, and I enjoyed it very much until I realized that Article 19, the right to free expression, was missing. Just to remind us all, Article 19 states that "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers." When I asked the director of the organization why Article 19 was not represented, she told me it was too abstract and complicated for the children to understand. I mentioned this later to a Russian colleague, a prominent human rights activist, who agreed that the concept was beyond little children.

I disagree vigorously, and I hope you will too. I myself was very young when I learned the difference between an original and a censored version. I remember my father showing me *Lamb's Tales from Shakespeare*, a very well known, respectable, and "sanitized" version for children of the great poet, with sex and violence removed or greatly reduced, simplified language, etc. My father explained that we would read the original together. I no longer remember what play we were about to read, and it isn't important; what matters is that he and I read it together, and he was there to explain to me whatever I didn't understand. This may have caused him some embarrassing moments, but he was willing to endure those.

I believe even very young children can understand censorship if it is explained in a way that is appropriate for their level, and I have no doubt either that very young children can understand tolerance. Indeed, I think they understand it far better than we adults do, because they carry so much less baggage. I'll never forget an incident years ago with my own five-year-old twin daughters. At their school they attended a multi-racial

kindergarten. One day my husband and I asked something about "white" children. The girls looked at us in disbelief, and said clearly, as though we were not very bright, "There aren't any white children! They're all different shades of tan and brown. Skin isn't *white!*" Let us listen to the children, and build on their good impulses. Again, this is not an easy proposition: it's necessary to organize a great deal of programming, carefully thought out and executed, in schools, museums, libraries, on radio and television, etc. And again, I know that some of you are already doing this in your countries, and doing it very well, so let me reinforce what you are doing and congratulate you on your efforts. I have heard about many good actions of this kind in various countries, and am always eager to learn about others: I hope *we* in the United States might learn from all of *you*.

I am an optimist, but not totally unrealistic, and I know that what I propose to you is anything but easy. The Third Reich, the Berlin Wall, the Gulag, and, indeed, slave cabins in the American South are symbols of the terrible barriers that mark their respective countries. The Third Reich collapsed fifty-five years ago, but no one has forgotten it. The Berlin Wall collapsed only eleven years ago, and of course its memory is still very much alive. I need not tell Lithuanians about the place the Holocaust and the Gulag hold in their national memory; and I can assure you that even 135 years after the emancipation of the slaves in my country, the wounds have not yet healed. Those of you from countries I have not mentioned can no doubt give me your own examples.

All these memories need to live on, but in healthy ways. The unhealthy

repercussions-prejudice, violence against foreigners, anti-Semitism, and others - must be dealt with actively, responsibly, and in ways appropriate to a democracy. When barriers collapse, the rubble falls on the pathway and makes walking uncomfortable and unsafe. Those of you who live in Germany, or countries of the former Soviet Union, are still cleaning up this rubble and it is a difficult and painful job - you have my sympathy. And those of us from democracies with longer histories know that we have plenty of rubble to clean up as well. I hope my suggestions might be of some help to you as you smooth the path in front of you. I hope too that each of you has, or will develop, a personal commitment to intellectual freedom and tolerance, and that you will remember this commitment, and act upon it, in your careers as librarians and information specialists.



Libraries and Librarians: Making a Difference in the Knowledge Age

67th IFLA Council and General Conference
August 16th - 25th 2001

Have you registered yet?

The programme is now available from www.ifla.org!

For more information on registering for the conference look at www.ifla.org, or contact the conference secretariat at:

CONGREX HOLLAND BV
P.O. Box 302
1000 AH Amsterdam
The Netherlands

Tel: +31 20 50 40 206
Fax: +31 20 50 40 225
E-mail: ifla2001@congrex.nl

Librarianship in 2010: The '00 Decade in Review

**John Durno, Simon Lloyd,
Elaine MacLean, Sandra Singh**

John Durno graduated from the School of Library, Archival and Information Studies at the University of British Columbia in 1996. He is currently working as a Project Coordinator with the BC Electronic Library Network, a consortium of British Columbia post-secondary libraries. He can be reached at jdurno@ola.bc.ca.

Elaine MacLean graduated from the School of Library and Information Studies at Dalhousie University in Nova Scotia, Canada in 1994. Currently, she is Head of Technical Services at St. Francis Xavier University's Angus L. Macdonald Library in Antigonish, Nova Scotia. Elaine is presently co-facilitating the delivery of a Certificate in Managing NGO Resource Centres at the Coady International Institute, also in Antigonish, NS. She can be reached at emaclean@stfx.ca.

Simon Lloyd is a graduate of the School of Library and Information Studies at Dalhousie University in Halifax, Nova Scotia (Class of 1997). During the summer of 1999, after several years spent working as a contract employee at a number of Halifax-area libraries and archival institutions, he assumed the post of Special Collections Librarian at the University of Prince Edward Island's Robertson Memorial Library in Charlottetown.

Sandra Singh is a graduate of the School of Library, Archival and Information Studies at the University of British Columbia. After spending several years in public libraries in both technical and public services, Sandra joined Suite101.com as their Head Cybrarian where she is responsible for the site's information management. She can be reached at ssingh@suite101.com.



The authors presenting the vision statement to the fifth Northern Exposure to Leadership Institute, 2000. Left to right: Elaine MacLean, Simon Lloyd, John Durno, Sandra Singh.

The fifth Northern Exposure to Leadership Institute was held last fall in Emerald Lake, British Columbia, with twenty-six librarians from across Canada. The task of writing a vision statement for the profession - based on the ideas and work of all participants - was given to John Durno, Simon Lloyd, Elaine MacLean, and Sandra Singh. They presented the following hypothetical scenario intended for the participants at the Northern Exposure to Leadership Institute meeting in 2010.

We are strong, proud and confident. We can do anything and go anywhere. We move people with our passion and inspire them with our knowledge. We are non-apologetic. Assertive. Dynamic. We are admired for our vision, knowledge and skills. We are information professionals in an information society. We are cultural leaders in an ever-changing cultural landscape. We are librarians.

We are everywhere we need to be and we are needed in more places than ever before. We are found in all venues - in fully equipped, well-funded and creatively designed buildings with ample room for our fully stocked collections; in corpo-

rate boardrooms; in the matrix. People of all ages, abilities, and cultural and social backgrounds spend significant portions of their leisure time with us learning, socializing, playing, and taking opportunities to grow and learn.

We also spend significant time online with other citizens, who prefer to contact us remotely. We are featured on television, radio, in movies and magazines. We have also made a move to interact directly with people in their homes and their places of work, where we can often more effectively guide them in their endeavours.

We are in constant demand at conferences and meetings at the local, national and global level, where our knowledge of information as it pertains to the well-being of our societies and our planet is invaluable.

... Yet it wasn't always like this. Cast your minds back to 2000. Certainly, there was a strong spirit of hope and a desire for innovation and change - expressed so accurately in the lyrics of a popular 1990s song, "I saw the decade in / we thought the world would change in the blink of an eye" - but our enthusiasm was tempered by confusion.

All our conscientious hard work and efforts to adapt were meeting with faint reward.

Why were we so undervalued and misunderstood? It seemed to many that our traditional structures and practices were under siege in an environment where so many dynamic young organizations were purporting to offer 'information solutions.' Some in the profession even wondered if it might not be time to turn our backs on structures and adopt the freewheeling opportunism of the dot.com millionaires strutting so briskly past our libraries.

Such a notion, however, found little support in a profession devoted to order and structured knowledge. Instead, we took an even greater risk: rather than undertake a fad-dish rejection of discipline and order, we rebuilt our profession so that it could embrace these fundamental principles even more closely.

Specifically, librarians spent much of the '00 decade developing a new

'architecture of accountability'. At the centre was a reworking of our professional associations to give them teeth. As we know, national library associations, in a global initiative coordinated by the International Federation of Library Associations and Institutions (IFLA) and UNESCO, are responsible for a professional certification process, a key element of which is an examination similar to 'the bar' faced by lawyers.

Most of those who sit the so-called book-bar have their MLS/ MLIS, but this is not a prerequisite. Membership in an association is mandatory, however, and is no longer a matter of faithful dues-paying and occasional conference attendance. Today's librarians must face (in person or virtually) a re-certification panel, appointed by their national association, every five years, and must also submit an annual report to their association.

A current proposal for a College of Librarians and Information Professionals would provide a framework for handling cases of alleged professional misconduct. Librarians

are encouraged to visit their associations' UltraNet site for a real-time update on these deliberations.

On a related note, all present are reminded to submit their proposals/comments to their delegate for the IFLA World Congress on the Librarians' Oath and Code of Practice, to be held next year in Charlottetown, Prince Edward Island.

This emphasis on accountability has done much to improve the appreciation of librarians in a global society, and the tireless work of the associations in gathering accountability data and distributing it to all relevant user constituencies is to be applauded. IFLA's edict that all national associations are to create library 'regions' within their countries, each overseen by a board of trustees composed of elected representatives of the user and librarian communities, so controversial only a few years ago, has gained increased acceptance and has worked well.

Having reviewed how we are called to account, let us remind ourselves



Participants in the fifth Northern Exposure to Leadership Institute, 2000.

what we are now held accountable for. For the past decade, librarians have been working vigorously to identify the key roles they must fill to deliver exemplary service to their user communities. This role identification has been a difficult and contentious process, and it continues. There are currently six widely-accepted role models used to evaluate the performance of the modern librarian.

Teachers and Learners

We guide our communities as they search for, synthesize and analyze information. As teachers, we work to develop information literacy skills to promote lifelong learning among our community members. We mediate between information resources and information seekers. We are committed to our own lifelong learning. The more we know, the better we become. As modern educators, we now understand that "as we sow, so shall we reap."

Researchers/ Experimenters

For decades, if not centuries, librarians have struggled with the vexing issue of how best to identify and meet user needs. Many diligent, competent professionals made extraordinary efforts to conduct studies of user needs, information-seeking behaviour, and so on, but the lack of a coherent research framework meant that much of this work realized only local benefits.

The recent creation of the IFLA/UNESCO Information Research Council, a programme to coordinate support for and publicize applied library and information science research, will almost certainly correct this. The council will also work to ensure that the scientific method is widely understood and rigorously applied by library researchers. This will complete the long transition from library and information studies to library and information science.

Even before the council was created, many librarians developed inno-

vative partnerships with public and private bodies to support library and information research and experimentation. The council is committed to enhancing, not supplanting, these efforts. Money and guidance to support librarians' research is now available wherever their work may take them.

Information Rights Activists

Our role as information rights activists is now widely recognized. There are many reasons why this happened, but perhaps the most important is the key role we played in promoting the view that access to information is a fundamental right, not simply the privilege of those who can afford it. Always important, this issue became the focus of widespread concern with the information industry's transition to digital delivery models.

Our efforts in this area have been so successful that it is sometimes difficult to imagine how public policy makers and legislators could ever have entertained the view that information was just another commodity. Yet it was a long, hard struggle to achieve the current positive balance between the rights of authors and publishers on the one hand and the public on the other.

As well, our profession is now central to the promotion of intellectual freedom in both local and global contexts. This has not come without controversy, and we have made enemies along with our many friends and supporters. But we have come to recognize that controversy and conflict are unavoidable if we wish to be relevant.

Advocates

After years of minding the store, the library lobby emerged in the first decade of the 21st century as a force to be reckoned with at all levels of government. Thanks in no small part to the coordinated activities of our professional associations and the contributions of many key

individuals, there is now widespread understanding of what we do and the positive benefits we provide, and we enjoy a level of support that earlier generations would have envied.

Effectively communicating the worth of our organizations in the language of our governing bodies and demonstrating the alignment of our activities with their priorities have been a cornerstone of our success. Nor should we underestimate the importance of the networks that many of us have established as we broadened our activities beyond the traditional library sphere.

Community Leaders

We are community leaders acting in all areas of public life from our neighbourhoods to the international arena. We represent the intellectual and cultural life of our communities and are looked to for guidance in matters of public administration and governance. We are advisors. Consultants. Symbols. We initiate innovative community partnerships, knitting the community together with each new idea and programme. We are seen as essential to the health and growth of our society, and we embrace the level of public engagement this responsibility demands.

Innovators

We are entrepreneurs, innovators, agents of change. We are explorers charting the new ground in information and creative expression. We are guides and mentors leading people with the maps we have created. We don't see problems - we see possibilities for improvement and growth. When we see potential, we act. When we see challenge, we innovate. We don't make do with what we have, but turn what we have into the seeds of invention. We're risk takers who straddle the public and private worlds, taking what we want and need and learning from the remainder. We are chameleons who can enhance any environment and see the potential

in any situation. We innovate. We initiate. We inspire.

**Northern Exposure
to Leadership 2000
Participants**

Bev Church, epixtech, inc.
Claudette Cloutier, University of Calgary
Dianne Cmor, Memorial University of Newfoundland
John Durno, Electronic Library Network
Tim Janewski, Edmonton Public Library
Mijin Kim, Canadian Library Association
Sian Landis, Grand Forks & District Public Library
Rosemary Loeffler, La Ronge Public Library
Simon Lloyd, University of Prince Edward Island
Elaine MacLean, St. Francis Xavier University
Judi McCallum, Markham Public Libraries

Scott McLaren, York University
Aidan Meegan, Swift Current Branch Library
Rian Misfeldt, Saskatchewan Institute of Applied Sciences and Technology
Shelagh Paterson, Canadian National Institute for the Blind Library for the Blind
Martin Poirier, Université de Sherbrooke
Renee Reaume, Marigold Library System
Dawna Rowson, Toronto Public Library
Pamela Ryan, University of Alberta Libraries
Rachel Sarjeant-Jenkins, Medicine Hat Public Library
Dawn Silver, Fraser Valley Regional Library System
Manjit Singh, Brantford Public Library
Sandra Singh, Suite101.com
Michelle Southam, Creston Public Library
Jennifer Stirling, Nortel Networks
Louise Tsang, York University Law Library

Note

Held every 18 months, the Northern Exposure to Leadership Institute assists professional librarians in developing, strengthening and exercising their leadership skills so that they may be better equipped to formulate, articulate, and achieve the future changes required by libraries into the 21st century. Known and acknowledged leaders in the profession participate as mentors and facilitators.

Acknowledgement

Reprinted from *Feliciter*, no. 1, 2001, by permission of the Editor, Elizabeth Morton, the authors and the publisher of *Feliciter*, the Canadian Library Association, 328 Frank Street, Ottawa, ON K2P 0X8, Canada. Tel. +1 (613) 232-9625, ext. 322. Fax: +1 (613) 563-9895. E-mail: emorton@cla.ca. Website: www.cla.ca.

The Multimedia Sector – New Fields of Activity for Information Specialists?

Ute Krauß-Leichert

Dr. Ute Krauß-Leichert is Professor at the University of Applied Sciences of Hamburg, Department of Library and Information Sciences. She has been responsible for courses in Information Services, Information Research, Structures and Policy of Library and Information Sciences, and Knowledge Management since 1995. From 1996-1998, she was Vice Dean of the Department, and since 2000 she has been a founder member of the University's research project 'Digital Interactive Media: development of eLearning modules, Professor Doctor Krauß-Leichert has been Chairman of the working party 'Joint Career Profile' of the Federation of German Library Associations (BDB) and the German Society for Information Science and Information Practice (DGI) since 1996, and Chairman of the Commission of Education and Training of the Professional Association Information Library (BIB) since 1997. She may be contacted at: Fachhochschule Hamburg, FB Bibliothek und Information, Grindelhof 30, 20146 Hamburg, Germany. Tel. ++49-40-42848-2437. E-mail: krauss-leichert@t-online.de.

Introduction

Are today's information specialists (librarians, documentation specialists, information managers, etc.) the experts who are needed in



forward-looking business sectors such as multimedia? This article will apply the skills and qualifications of information specialists, which have been explored in various projects and studies, to the multimedia sector and compare these skills and qualifications with the findings of empirical studies.

The current situation is as follows (cf. BDB, 1998, p. 10). The social context in which information and media institutions operate is undergoing far-reaching changes. This manifests itself for example in globalization, scarcer resources, privatization and deregulation. Libraries and similar institutions are having to contend with a rapid shift in their functions. Thanks to the Internet, their portfolio of information and services is now comparable on a worldwide basis. This has called into question the traditional definition of librarianship and documentation skills. The career profiles in the media and information sectors are converging, even though there are still sector-specific demarcations in terms of job description and field

of activity. Given the lack of knowledge about future developments, there is hardly any justification for a fixed canon of knowledge and skills which a future information specialist must have at his or her disposal. Instead of a fixed set of specifications, it is necessary to work towards the formulation of (key) qualifications and skills which will enable future information professionals to adapt to new developments as well as to anticipate and actively influence these developments.

Projects Centring on Career Profiles

These ideas have been taken up by several groups which concern themselves with the development of a career profile for information specialists. This article examines three projects in further detail: 'Career Profile 2000'; 'NBE Project'; 'DECI-Doc Project'.

Career Profile 2000¹

In the autumn of 1996 the Bundesvereinigung Deutscher Bibliotheksverbände (BDB) [Federal Union of German Library Associations] set up a working party called 'Joint Career Profile'. The task of the working party was to create a forward-looking, unified career profile for the library profession from the viewpoint of the general public - a profile that embraces all segments (public libraries, academic libraries, special libraries) and all career paths (intermediate, higher and senior public-service grades). Initially, the working party's remit did not include documentation specialists. However, the members of the working party soon realized that a future career profile would have to extend to the documentation sector. This led to a change of course at the beginning of 1999, when a second working party was set up consisting of representatives of the BDB and

the Deutsche Gesellschaft für Informationswissenschaft und Informationspraxis (DGI) [German Association for Information Science and Information Practice]. It is planned to carry out an image promotion campaign for the library and documentation management professions.

The Career Profile 2000 arrived at the following findings:

- The defining factors in the career profile of a librarian are: fields of action, institutions and skills.
- In future, the self-definition of the librarian profession will derive to a lesser extent from the institution 'library' and its various sub-categories (public and academic libraries; general and specialist libraries). Instead, this self-definition will depend to a greater extent on fields of action and the intrinsic nature of the librarian's work (advising users, disseminating information, management, network administration).
- Libraries will require staff with different kinds of skills.
- Libraries will require staff who display a broad spectrum of skills (generalists), or who have acquired skills in a specific area (specialists).
- Above all, librarians must have specialist methodological skills.² In addition - depending on their field of work - they must possess academic, social, cultural, business administration and technological skills. It is important to differentiate these skills according to fields of action (indexing, the dissemination of information, collection development, acquisition, cultural work, etc.). In practice, these skills are interlinked, not separate.

The New Book Economy (NBE) Project

"The New Book Economy Project was initiated by the Council of Europe in order to prepare the book industry - libraries, publishers and booksellers - for the new demands of the emerging information society and to assist the book industry in adapting to structural change and

acquiring new skills." (Qualifizierungsbedarf, 1998, p. 5).

One part of the NBE project analysed the skill requirements for information specialists working in special academic libraries and information centres. The analysis was carried out on the basis of recent academic journals,³ above all from Anglo-American countries (cf. Otte, 1998, pp. 63 - 76).⁴ The evaluation of the articles revealed that - although the skills for information specialists have been defined, categorized and subdivided in different ways - certain core skills have been repeatedly mentioned (ibid. p. 63). These are "described as a combination of skills, knowledge, applied knowledge and personal attitudes" (ibid. p. 63).

Cultural Skills Relating to the Parent Institution:

The special academic library presents itself as the central information service provider of its parent institution. "The goals and assignments of the special library - ultimately its entire existence - depend on its ability to anticipate the goals of the parent institution/company and to further these goals by providing appropriate information services." (ibid. p. 64)

Social and Personal Skills:

"Personal skills (...) are seen as the ability to (...) interact appropriately with very different groups of people, e.g. customers, co-workers, superiors, management and administration." (ibid., p. 65)

Teamwork, problem-solving skills, the ability to motivate, leadership qualities. (ibid., p. 65)

Educational/didactic and rhetorical abilities (for the dissemination of knowledge). (ibid., p. 66)

Communication skills (in oral and written form).

Management Skills:

"All the abilities and skills (...) which enable the conscious, responsible, strategic, goal-dri-

ven, quality-oriented and directed utilization of financial and human resources, the product (information services) and time." (ibid., p. 66)

Human resources management and development. (ibid., p. 67)

Expert Library-Science and Information-Science Knowledge (specialist methodological skills)

"What is meant here is the knowledge of all conventional and new types of information in all media forms, access and procurement modes, selection and evaluation methods, as well as structured, formal and systematic indexing, distribution, dissemination and marketing methods." (ibid., p. 67) With reference to special academic libraries and information centres this means the "creation and design of a differentiated range of information services tailored to the parent institution." (ibid., p. 68)

Information Technology Skills

Distinction between hardware and software knowledge, between basic, extended and expert knowledge.

The DECIDoc Project⁵

A second project dedicated to the identification of qualifications and skills is the DECIDoc Project. Sponsored by the European Commission, this project sets out "to ensure the cross-border comparability of qualification levels and training certificates for information specialists throughout Europe in order to promote employment in European countries on the basis of a certification founded on common criteria (Köhne, 1999, p. 177). This project was initiated by the ECIA (European Council of Information Associations).⁶

The first outcome of this project is the rough draft of a joint 'European Certification Manual for the Information and Documentation Sector' (Euroréférentiel). The objective of this manual is two-fold: firstly, to

describe the various career profiles and fields of activity in the information sector; and secondly, to define as far as possible a skill profile for information specialists. Unlike the 'Joint Career Profile', this certification manual works on the assumption of various different skill levels. Initially, four skill levels were proposed. This number was subsequently reduced to three (technician, engineer, expert). The following discussion restricts itself to the April 1999 edition.

Specialist Knowledge in the Information And Documentation Sector

These skills are very similar to the methodological, specialist skills identified by the other two projects (cf. *Europäisches Zertifizierungshandbuch*, 1999, pp. 16 - 25).

Communication-Related and IT Knowledge

This includes oral communication, written expression, foreign languages, audiovisual communication techniques, in-house communication and public relations. In a subsequent revision, information technology was given considerably increased priority (cf. Köhne, 1999, p. 178) and will most likely be assigned to a separate skill category (cf. *Europäisches Zertifizierungshandbuch*, 1999, pp. 26 - 34).

Administrative and Management Knowledge

This category encompasses classical administration skills, as well as quality and project management and pre and post-qualification training (ibid., p. 35 - 44).

Specialist Knowledge Outside the Information and Documentation Sector

This relates to the application of outside disciplines in order to solve specific information and documentation problems and to respond more effectively to specific professional situations (ibid., p. 45).

Personal Qualities

These include adaptability, analytical skills, the ability to make constructive criticism, inquisitiveness, the ability to work in a team, decisiveness, the ability to listen, organizational talents, a willingness to take the initiative, powers of comprehension, consistency, pedagogical skills, stamina, etc. (ibid., pp. 46 - 49).

This list corresponds largely to the modified concept of key qualifications, comprising 'formal abilities' and 'personal modes of behaviour' (cf. Krauß-Leichert, 1995, p. 146).

Comparison of the Skills Defined by the Various Projects

When the various projects are compared, three significant skill categories emerge: technical knowledge, management skills, and information technology skills (cf. Fig. 1). Cultural skills (or 'cultural skills relating to the parent institution' as they are called in the NBE project) play only a marginal role and, compared with the other skills, are presumably dependent on the institution concerned. Social/personal skills receive varying degrees of emphasis. In the case of the NBE

Project and Career Profile 2000, for example, the ability to communicate is assigned to the social skills. In the case of the DECIDoc Project personal qualities are not subsumed under the other skill categories, but are stated separately.

These social skills, which in most cases are equated directly with key qualifications,⁷ are often termed 'soft skills' in the Anglo-American countries. They are especially important in the multimedia sector, where work normally takes place in project groups on the basis of intensive communication and teamwork. (cf. Schisler, 1998, p. 44).

The MoDeIDoc Project

What results have been produced by empirical studies carried out in the multimedia sector? What skills and qualifications are required by the multimedia industry?

The starting point for the studies under examination here was a conference in Baden-Baden in 1996. At the invitation of the broadcasting corporation Südwestfunk, representatives from diverse segments of the multimedia industry came together

Projects / Studies			
	Career Profile 2000	NBE Project	DECIDoc Project
SKILLS	Specialist methodological skills	Expert library-science and information-science knowledge	Specialist knowledge in the information and documentation sector
	Technological skills	Information technology skills	Communication-related and IT knowledge
	Business administration skills	Management skills	Administrative and management knowledge
	Social skills	Social and personal skills	Personal qualities
	Cultural skills	Cultural skills relating to the parent institution	
	Academic skills		Specialist knowledge outside the information and documentation sector

Figure 1: Comparison of skills.

to discuss the "qualification requirements for new job fields in the multimedia market".⁸ One outcome of the conference was a project aimed at popularizing the profession of documentation manager within the multimedia sector. This project was carried out by Hamburg University of Applied Sciences for the Hamburg region (cf. Krauß-Leichert/Schmidt 1997), and Potsdam University of Applied Sciences for the Berlin-Brandenburg region (cf. Poetzsch 1997). The results culminated in an EU-sponsored project entitled 'Mobilization campaign based on Delphi-Studies for the promotion of image and transfer of documentary skills and professions in competence centres for the multimedia line (MoDelDoc)', which is being conducted by the Library and Information Department of Hamburg University of Applied Sciences and the Research Agency for Information Strategy.⁹ Transnational partners are Robert Schuman University, IUT (Dép. Infocom) in Strasbourg and the Istituto Luigi Sturzo in Rome. The project is being financed out of the European Social Fund¹⁰ within the framework of the European Community initiative ADAPT. Among other things, this project has resulted in the development of a further training curriculum for 'Information Managers (New Media)' and a competence centre bearing the name 'Multimedia and Information Management (mim-Pool)' (cf. Schnittstellenkompetenz, 1999). This competence centre is designed to "function as an interface between the multimedia sector, its representative organizations (e.g. the German Multimedia Federation), the Library and Information Dept. of Hamburg University of Applied Sciences, and information and documentation specialists" (cf. Falke/Storm, 1999, p. 280). Further concrete outcomes of the MoDelDoc Project include various undergraduate dissertations and degree theses (cf. Arndt 1999) and a literature database, as well as a database listing further training opportunities for the multimedia sector in the Hamburg region.

Two studies (one in southern Germany, the other in Hamburg) con-

nected with the MoDelDoc Project arrived at important findings with regard to the skill requirements for the multimedia sector.

The first study was carried out in 1998.¹¹ One hundred and three multimedia companies located in southern Germany were contacted by e-mail. Fifty-two companies replied; forty were evaluated (cf. Arndt 1999, pp. 58 - 60). This response rate can be regarded as positive. Multimedia companies normally show a much lower propensity to participate in surveys.

The second study was an empirical survey carried out by students on the Multimedia Documentation course at Hamburg University of Applied Sciences (Library and Information Department) within the framework of an interdisciplinary project¹² headed by R. Schmidt.

The first part of the Hamburg study consisted of a qualitative survey¹³ (individual oral interviews) focusing primarily on existing information structures (cf. Schnittstellenkompe-

tenz 1999, pp. 65 - 86). In the second part of the study, eighty multimedia companies were surveyed via e-mail (cf. Schnittstellenkompetenz 1999, p. 89). The response rate was in excess of 20 percent (cf. Fig. 2).

Multimedia companies emphasize two sets of qualification criteria for future employees: personal qualities and specialist qualifications (cf. Schisler 1997, p. 7). For this reason the two studies concentrated on these two areas.

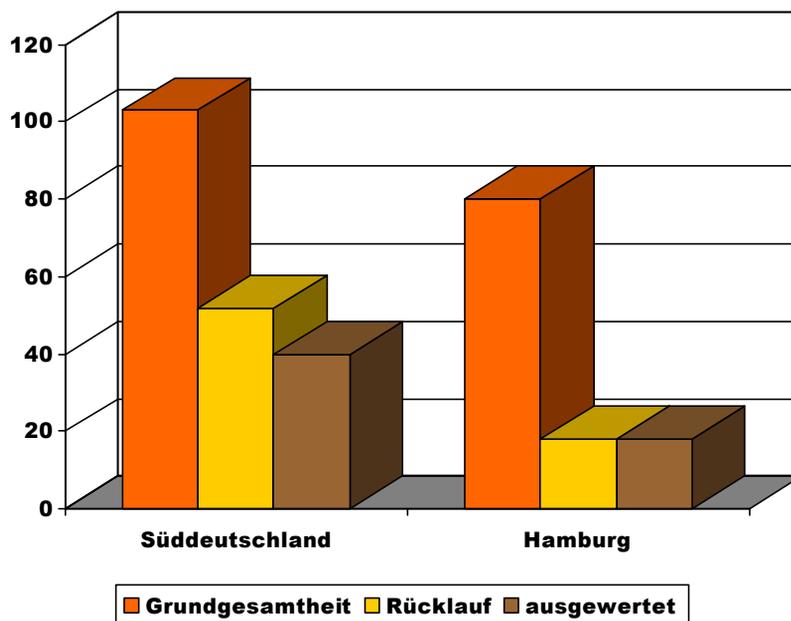
Results of the southern German study

Social Skills/Soft Skills

"Asked to state their selection criteria for multimedia specialists, managing directors of multimedia companies first of all mention general 'key qualifications'" (dmmv-Guide 1999, p. 15).

The study by Arndt revealed the importance of *soft skills* for the multimedia sector. Most of the respondents rated flexibility, cre-

Fig. 2: Studies with regard to skills and qualifications for the multimedia sector



Note: Süddeutschland = Southern Germany
 Grundgesamtheit = population
 Rücklauf = response rate
 ausgewertet = evaluated

activity and teamwork as very important. The ability to communicate, presentation skills and assertiveness were regarded as important. The mention of assertiveness is particularly interesting, as it points to a strong commitment to put one's ideas into practice (cf. Fig. 3).

These results correspond largely to the qualification requirements established by the German Multimedia Federation (dmmv) in its Training Guide (cf. dmmv-Guide, 1999, p. 15). Further social skills stipulated in the dmmv Training Guide are: service orientation, the ability to cope with stress and a willingness to engage in life-long learning.¹⁴

Information Technology Skills

The southern German study gives special attention to information technology skills. The objective was not to establish *whether* these skills are necessary, but to determine *which* skills information specialists must possess if they are interested in working in the multimedia sector.

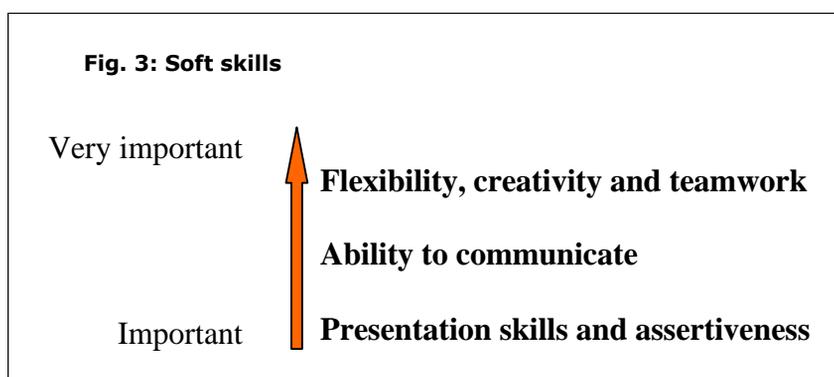
The question was posed in an open way so that the respondents had the chance to describe explicitly their IT applications and requirements. The spectrum encompassed operating systems, programming languages, graphics programmes and database systems.

The following programming languages were cited¹⁵ (Arndt, 1999, pp. 71, 72):

Java, C++, Java Script, Perl, HTML, C, Lingo, Visual Basic, Macromedia Director, PHP3, Delphi, Open Script, ASP, CGI, SQL, Basic, Basic Script, SGML, Flash, Cold Fusion.

The following graphics programmes were mentioned (ibid., pp. 72, 73):

Photoshop, Freehand, Illustrator, CorelDraw, Quark, Macromedia Fireworks, Ulead Photoimpact, Paintshop, Premiere, Macromedia Splash, Powerpoint, Fractal



Painter, Debalizer, Xres, Lightwave, Maja, Softimage, Pagemaker.

These lists serve as a guideline. However, this does not imply that information specialists need to have a command of all these software packages. Instead it is important to raise awareness of the fact that IT skills are a core requirement for persons who are interested in working in the multimedia sector.

Other Specialist Qualifications

Alongside IT skills, the multimedia sector also expects knowledge and experience in the area of project management. This finding comes as no surprise, as multimedia companies frequently adopt project-oriented working methods.¹⁶ In addition, general business administration skills are expected, together with a good command of English. The demand for business administration skills is understandable given the fact that the majority of the companies included in the survey were small-sized and that these companies expect their employees to be all-rounders (ibid., p. 77). Comparisons can be drawn here with small special libraries and information centres, where generalists are also in high demand.

The survey also raised the question of legal knowledge. However, only 15 percent of the respondents stated that legal knowledge was relevant (ibid., p. 77). One explanation is that questions relating to copyright and exploitation rights are often outsourced or are dealt with by the companies' clients. Numerous legal firms now specialize in counselling multimedia companies.

Results of the Hamburg Study

This article will now compare the findings of the southern Germany study with those obtained in the Hamburg region.

The Hamburg study also devoted close attention to the IT skills demanded by multimedia companies, as well as additional specialist qualifications.

Under the heading IT skills, the Hamburg study - like its counterpart in southern Germany - asked about the required operating systems, programming languages and database systems. Java, Perl, JavaScript and HTML were the preferred programming languages in Hamburg. More than 50 percent of the respondents mentioned Java (cf. Schnittstellenkompetenz 1999, p. 93). Future employees were also expected to have a good command of the graphics programmes (in order of preference: Photoshop, FreeHand, QuarkXPress, Illustrator and Fireworks).

With regard to the additional qualifications required of employees in the multimedia sector, project management experience was cited most frequently (as was the case in the southern German study). A command of English was also in high demand. In line with Arndt's findings, business administration skills were also expected, but were not deemed to be quite as important. Legal knowledge plays only an insignificant role in Hamburg.¹⁷

Comparison of the Two Studies

There are certain problems in comparing two empirical studies. In

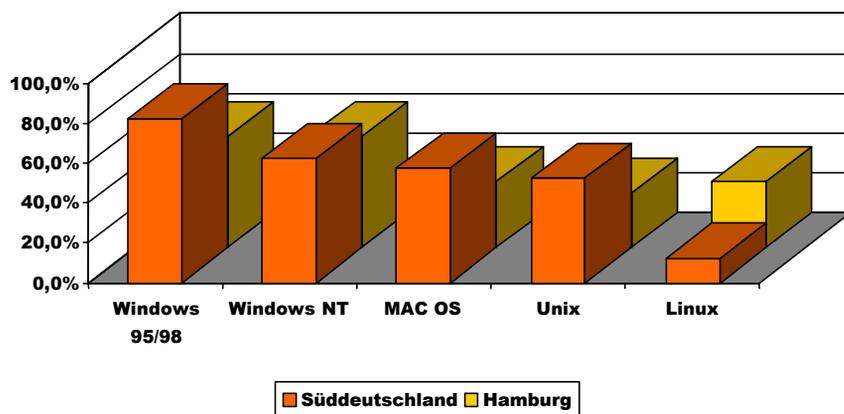


Figure 4. Operating systems.

both cases the emphasis was on qualitative information, perspectives and assessments, not on 'hard' statistics. This article will therefore identify certain trends which could prove useful when defining the skills expected by the multimedia sector.

Comparison of IT Skills

As both studies asked similar questions about IT skills, they can be meaningfully compared.

In both studies Windows 95/98/NT figure prominently among the operating systems. The relative insignificance of Linux in southern Germany probably has to do with the fact that the survey was carried out in 1998, i.e. just as Linux was entering widespread use (cf. Fig. 4).

Java programming skills are in demand in both regions. Only in southern Germany does C++ play a comparably important role. (cf. Fig. 5).

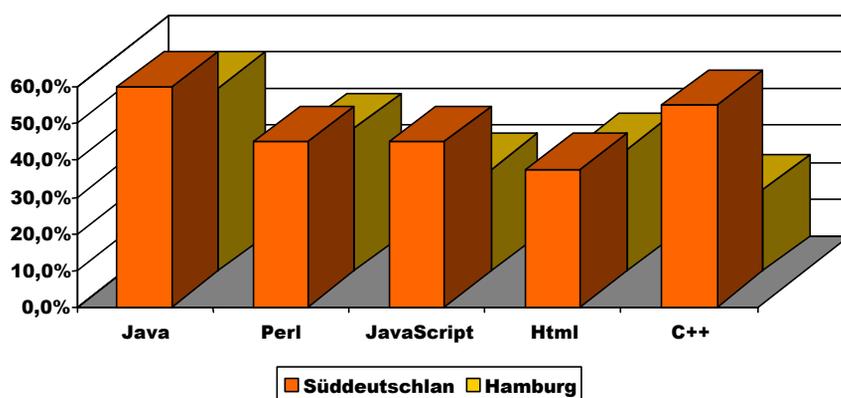


Figure 5. Programming languages.

Photoshop is clearly the favourite graphics programme in the multimedia sector. Although a total of eighteen graphics programmes were cited in the southern German study, certain standard applications are preferred throughout the multimedia industry - also by companies in Hamburg and southern Germany (cf. Fig. 6).

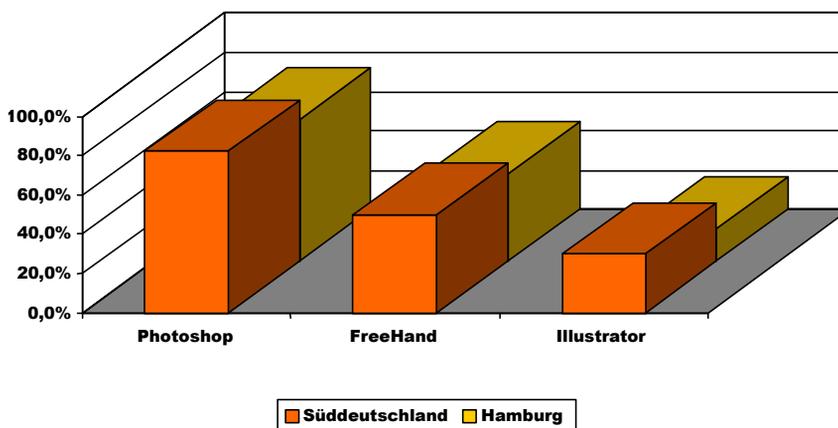


Figure 6. Graphics programmes.

The priorities are less clear with regard to database systems. Nevertheless, SQL is the most widely used database (cf. Fig. 7).

When the two studies are compared it can be concluded that certain standard IT skills will be expected of future employees in the multimedia sector. By implication, information specialists who are interested in working in the multimedia sector must also possess these skills.

Comparison of other Specialist Qualifications

Both studies underline the importance of business administration skills. Project management experience receives the highest priority.¹⁸ A command of English is also in high demand. By contrast, legal knowledge (for the clarification of copyright and exploitation rights) plays only an insignificant role.

Summary and Conclusions

Information technology skills and social skills number among the core skills in the multimedia sector. Potential employees are expected to display soft skills such as the ability to work in teams, creativity, flexibility, service orientation, the ability to cope with stress and a willingness to engage in lifelong learning. In addition, they must possess a sound knowledge of information

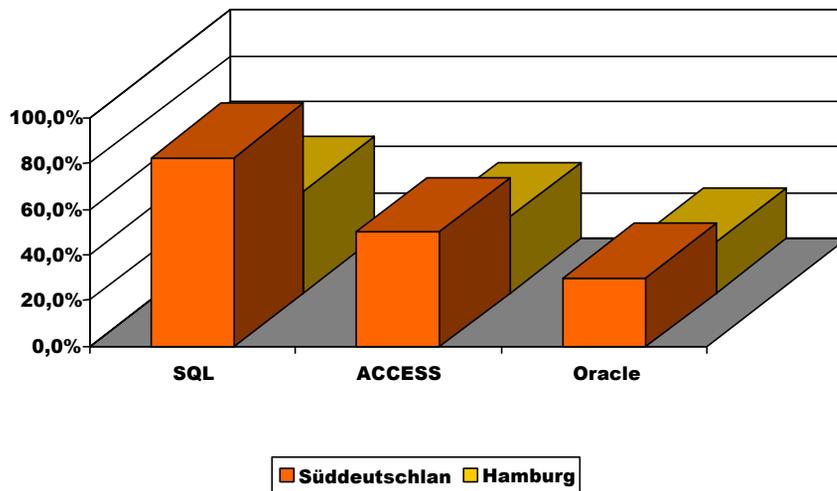


Figure 7. Database systems.

technology. The multimedia sector also demands project management skills and a very good command of English.

When one compares these skills with the demands placed on personnel working in the library and information sector, there is a certain congruence. This manifests itself above all in the area of social skills and IT skills. It should be borne in mind, however, that the multimedia sector and the library sector differ radically in terms of their fields of action and application. Information specialists working in the library sector are expected to display pronounced cultural skills. Such cultural skills are practically of no importance in the multimedia sector.

Putting all reservations aside, information specialists have the chance to gain a foothold in multimedia companies. However, much depends on the individual qualities and adaptability of these information professionals, be they librarians, documentation specialists or information managers.

References

1. BDB Bundesvereinigung Deutscher Bibliotheksverbände, Career Profile 2000. The Changing Roles of Libraries and Librarians. Prepared by the Working Party Joint Career Profile of BDB e.V. Chaired by Ute Krauß-Leichert. Berlin 1998.

2. For a more detailed description of these skills see Career Profile 2000, pp. 12-14 or Ute Krauß-Leichert, Berufsbild 2000. In: Berufsfeld Bibliothek, 1998, pp. 26-33.
3. Primarily journals published in the previous 2 years.
4. See also Walburgis Otte, Future Competencies and Qualification Needs for Special Librarians and Informations Specialists. In: For the Library of the Future - Improving the Quality of Continuing Education and Teaching. 1998, pp. 151-156.
5. Europäisches Zertifizierungshandbuch für den Bereich Information und Dokumentation (IuD). Handbuch für die Charakterisierung von Kompetenzprofilen für Informationsfachleute in Europa. DGI. Frankfurt April 1999.
6. A federation of professional library, documentation and information associations from nine EU countries.
7. Erroneously, as social skills are only one aspect of key qualifications, cf. Reetz 1990, p. 30.
8. See also Michael Harms et al (edit.), Qualifikationsanforderungen für die neuen Berufsfelder des Multimedia-marktes, Potsdam 1998.
9. Univ. of Applied Sciences: Prof. Dr. Ute Krauß-Leichert; Research Agency for Information Strategy: Prof. Dr. Ralph Schmidt.
10. Duration: 1 Oct. 1997 - 31 Sept. 2000
11. Examination thesis written by Irina Arndt: "Die Multimedia-Branche: Chancen und Grenzen für Informationsfachleute - unterstützt durch eine E-Mail-Befragung von Multimedia-Unternehmen in Süddeutschland". This thesis was submitted in 1998 to the Library and Information Dept. of Hamburg Univ. of Applied Sciences (Prof. Dr. U. Krauß-Leichert).

12. Projects are an obligatory course component in the 6th semester.
13. A total of 14 interviews were carried out.
14. Peter Schisler arrives at similar findings in: Welche inhaltlichen und extrafunktionalen Qualifikationen werden von neuen Mitarbeitern und Multimedia-Firmen erwartet, 1998, pp. 43-48.
15. Ranked according to frequency.
16. Cf. the student reports on individual multimedia firms in Hamburg (Krauß-Leichert/Schmidt 1997).
17. The Hamburg study referred to other qualifications such as interfacing abilities and information management. These two items were rated equally highly (2nd in order of preference).
18. This distortion was due to the fact that these two items were surveyed separately.

Bibliography

- Arndt, Irina. (1999) Die Multimedia-Branche: Chancen und Grenzen für Informationsfachleute. Unterstützt durch eine E-Mail-Befragung von Multimedia-Unternehmen in Süddeutschland. Hamburg 1999. (Hamburger Materialien: Mediendokumentation, Bibliotheks- und Informationsmanagement 4).
- BDB. (1998) BDB Bundesvereinigung Deutscher Bibliotheksverbände, Career Profile 2000. The Changing Roles of Libraries and Librarians. Prepared by the Working Party Joint Career Profile of BDB e.V. Chaired by Ute Krauß-Leichert. Berlin 1998.
- Dmmv-Guide. (1999) Dmmv-Guide. Aus- und Weiterbildung für die Multimedia-Branche. Düsseldorf, München 1999.
- Europäisches Zertifizierungshandbuch. (1999) Europäisches Zertifizierungshandbuch für den Bereich Information und Dokumentation (IuD). Handbuch für die Charakterisierung von Kompetenzprofilen für Informationsfachleute in Europa. DGI. Frankfurt 1999.
- Falke, Nicole/ Storm, Kai. (1999) Schnittstellenkompetenz - Studien zur Entwicklung eines Kompetenzzentrums 'Multimedia & Informations-Management' (mim-Pool). In: Ockenfeld, Marlies u. a. (Hrsg.): *Information und Region. 51. Jahrestagung der Deutschen Gesellschaft für Informationswissenschaft und Informationspraxis (DGI). Hamburg 21. bis 23. Sept. 1999.* Frankfurt a. M. 1999, S. 273-284.
- Harms, Michael u. a. (Hrsg.) (1998) Qualifikationsanforderungen für die neuen

- Berufsfelder des Multimediemarktes. Protokoll einer Konferenz vom 11. Bis 12. Juli 1996 und eines Informationstages für Arbeitsberater am 16. Dezember 1996 beim Südwestfunk Baden-Baden. Potsdam 1998 (Materialien zur Information und Dokumentation Bd. 4).
- Köhne, Bärbel (1999) Zertifizierungsmodelle für Informationsfachleute. In: Ockenfeld, Marlies u. a. (Hrsg.): Information und Region. 51. Jahrestagung der Deutschen Gesellschaft für Informationswissenschaft und Informationspraxis (DGI). Hamburg 21. bis 23. Sept. 1999. Frankfurt a. M. 1999, S. 173-180.
- Krauß-Leichert, Ute. (1998) Berufsbild 2000: ein gemeinsames Berufsbild. In: Busch, Rolf (Hrsg.): Berufsfeld Bibliothek. Berlin 1998, S. 26-33.
- Krauß-Leichert, Ute/Schmidt, Ralph (Hrsg.) (1997). Dokumentarische Kompetenz in der Multimedia-Branche - eine Hamburger Delphi-Studie. Potsdam 1997 (Materialien zur Information und Dokumentation Bd. 2).
- Krauß-Leichert, Ute. (1995) Schlüsselqualifikationen: eine Antwort auf heutige und zukünftige Bildungsanforderungen? In: BIBLIOTA. 50 Jahre bibliothekarische Ausbildung in Hamburg, 25 Jahre Fachbereich Bibliothek und Information. Münster, New York 1995, S. 142-148.
- Otte, Walburgis. (1998) Future Competencies and Qualification Needs for Special Librarians and Information Specialists. In: *For the Library of the Future - Improving the Quality of Continuing Education and Teaching. International Conference and Workshop Bad Honnef, 16th - 19th February, 1998, Proceedings*. Berlin 1998, S. 151-156.
- Otte, Walburgis. (1998) Kompetenzanforderungen an Mitarbeiterinnen und Mitarbeiter wissenschaftlicher Spezialbibliotheken und Informationseinrichtungen sowie Qualifizierungsbedarf. In: Qualifizierungsbedarf in Öffentlichen und wissenschaftlichen Spezialbibliotheken. Projekt New Book Economy. Studie. Berlin 1998. (Dbi-Materialien 171).
- Poetzsch, Eleonore (Hrsg.) (1997) Mobilisierungskampagne zur Imageförderung dokumentarischer Berufsbilder. Potsdam 1997 (Materialien zur Information und Dokumentation Bd. 1)
- Qualifizierungsbedarf. (1998) Qualifizierungsbedarf in Öffentlichen Bibliotheken und wissenschaftlichen Spezialbibliotheken. Projekt New Book Economy. Studie. Berlin 1998. (Dbi-Materialien 171).
- Reetz, Lothar/Reitmann (Hrsg.) (1990) Schlüsselqualifikationen: Fachwissen in der Krise? Dokumentation eines Symposiums in Hamburg. Hamburg 1990. (Materialien zur Berufsausbildung Bd. 3).
- Schisler, Peter. (1997) Qualifizierungsprofile für Multimediaberufe. Studie. O.O. 1997.
- Schisler, Peter. (1998) Welche inhaltlichen und extrafunktionalen Qualifikationen werden von neuen Mitarbeitern und Multimedia-Firmen erwartet. In: Harms, Michael u. a. (Hrsg.) Qualifikationsanforderungen für die neuen Berufsfelder des Multimediemarktes. Potsdam 1998, S. 43-48 (Materialien zur Information und Dokumentation Bd. 4).
- Schnittstellenkompetenz. (1999) Schnittstellenkompetenz in der New Media-Branche. Informationsorganisation und Wissensmanagement als Arbeitsfeld. Konzeption, Design und Evaluation eines Kompetenzzentrums Multimedia und Informationsmanagement (mim-Pool). Endbericht. Projekt Mediendokumentation. Nicole Falke... Hamburg 1999. (Hamburger Materialien zur Medien-Information 10).

*Plus NLG 25 handling charges



Library Associations – Their Role in Supporting the Creation of Information Societies

Nick Moore

Nick Moore is the Managing Partner in Acumen, a partnership he established in 1983 to explore a wide range of issues concerned with the use of information in society. He has extensive international experience of research and consultancy and has developed a particular interest in the emerging information-based societies in East Asia.

After spending eight years at the Policy Studies Institute, where he established and managed Europe's largest research team working on the policy issues associated with the development of information societies, he rejoined Acumen in 1998 to continue his research and consultancy work and to develop his policy analysis activities. Recent projects include: the coordination of the distributed national collection of research material for the British Library - Higher Education Task Force; a review of library cooperation, conducted jointly with EfC for the British Library's Cooperation and Partnership Programme, and the formulation of a Stewardship Strategy for Resource, also undertaken jointly with EfC.

He is Visiting Professor of Information Policy at City University, Visiting Professor of Information Strategy at the University of Brighton and a Visiting Fellow of Bristol University. Nick Moore also chairs the Help for Health Trust which has become the major content provider to the National Health Service's digital information service - NHS Direct Online - and which has recently been designated by the Department of Health as the quality assurance agency for health information on digital interactive television.

Nick Moore has presented numerous conference papers all over the world and has published widely. He may be contacted at: Acumen, Brompton Ralph, Taunton TA4 2RU, United Kingdom. Tel +44 (0) 1984 623668. Fax +44 (0) 1984 624838. E-mail: nick.moore@acumenuk.co.uk.

This paper is based on a presentation made to the Ugandan Library Association's conference on 'Building an Information-Driven Economy in Uganda', Kampala, 8-10 November 2000. See: www.ou.edu/cas/slis/ULA/ula_index.htm.

Libraries and information services can make an important contribution to the development of information-driven economies and



information-intensive societies. Yet their contribution is often overlooked.

At first, attention tends to be focussed on the technology. More precisely, the debate is concerned with how best to build and manage the technological infrastructure. As these problems are solved, people become more concerned with the creation of information content - how best to generate all the information that can be transmitted around the new networks.

As the information-driven economy matures, attention shifts to a more fundamental question - how can we store, manage and use the information most effectively?

It is to this third level of debate that library and information professionals can make their biggest contribution by supporting the development of a country's national information policy.

Library associations around the world are beginning to recognize the need to evolve their own frame-

works of policy in order to make an effective contribution to the wider, national debate. These policy frameworks are necessary to set out and communicate the vision both of an information society and of the information profession's contribution to the development of that society. The policy also makes it easier to decide on competing priorities and thus to make the best use of limited resources. A clear policy statement also makes it possible to ensure that our partners know what it is that we are planning to do.

The basic question that we need to address, therefore is this: how can the library and information profession help to build an information society based on a knowledge economy?

Information Societies

To answer the question we first need to consider what we mean when we talk about an information society in general, or about a knowledge economy in particular.

Information societies are emerging rapidly in different parts of the world - in big countries like China and the USA; in small countries like Singapore and Luxembourg; in advanced economies like Canada and in emerging economies like Thailand. They can also be found in fiercely capitalist countries like Japan or Korea and in socialist states like Vietnam. It is, I believe, a phenomenon that will come to define the transition from the twentieth century to the twenty-first.

There is a widespread belief that the creation of these information societies with their knowledge-based economies holds the key to future success. By applying information and communication technologies, it is argued, we will ensure future economic growth;

bring about political stability; achieve social harmony and benefit from cultural richness. Clearly, many of the claims are exaggerated and success is by no means guaranteed. What is sure, however, is that countries that do not embark on this process of economic, social, political and cultural change will drop further and further behind.

The information societies to which we all aspire have four main characteristics: a network of information-intensive organizations; an effective information sector; widespread social use of information and a pervasive system of lifelong learning. Let us consider each of these characteristics in turn and explore how the library and information profession can contribute to their development.

Information-Intensive Organizations

In an information society, organizations of all kinds use information and its associated technologies to increase their efficiency, to stimulate innovation and to increase their effectiveness and competitive position, often through improvements in the quality of the goods and services that they produce. This applies just as much to organizations in the public and voluntary sectors as it does to those in the private sector. The key factor is the use of information as a management resource to improve organizational efficiency and effectiveness.

There also tends to be a steady process of industrial and organizational re-structuring as organizations move up the value-chain, adding greater amounts of value through the application of knowledge and, in so doing, raising the country's gross domestic product per capita.

To stimulate this kind of development calls first for a widespread understanding of the role that information and knowledge play within organizations and, an appreciation of the ways in which they can be used to improve efficiency and

effectiveness. Put simply, the people who run organizations need to be convinced that, by using information more effectively, they can run their organizations better.

Secondly, the organizations need to be able to draw on a ready supply of skilled people who can manage information effectively, working with managers to use information for the wider benefit.

An Effective Information Sector

The second characteristic of information societies is the development of a significant information sector within the economy. The function of the information sector is to satisfy the general demand for information facilities and services arising within the society. In most cases, there is also pressure to ensure that the sector competes effectively within the global information market.

The overall information sector can be divided into three segments: content, delivery and processing.

The information content segment consists of the individuals and organizations that produce and develop intellectual property. These range from writers, composers and artists through to publishers and production companies that take the raw intellectual property and process it in different ways so that it can be distributed and sold to consumers.

The information delivery segment is concerned with the creation and management of the digital networks through which we communicate information electronically. This includes the telecommunications companies; cable television networks; terrestrial and satellite broadcasters; mobile telecommunications providers and radio and television broadcasters.

Allied to these organizations is another set that are concerned with the use of these and other channels to distribute the information content in more conventional formats. This is where we find the book-sellers, libraries, analogue broad-

casting companies and the providers of value-added network services - services provided through the telecommunications networks, but which offer more than basic voice telephony: anything from information about the weather to traffic news; from information about health to guides to local events.

The third segment of the information industry is concerned with information processing. This includes the hardware and software producers and providers. It also includes the rapidly growing organizations that undertake the computing and information processing function for other organizations.

Increasingly, technological change is dissolving the boundaries between these different segments of the information sector.

The library and information profession can support the development of this information sector in a number of ways. First, we can support creative - using the term in its widest sense - individuals and organizations, helping them to produce the information materials that are needed by society. Similarly, we should work with and support local publishers, production companies and other organizations that take unprocessed data or information and turn it into something useful.

On a more general level, we should support the development of an effective framework of intellectual property law. Creative people need to be able to profit from their endeavours and we all need to be able to use and trade intellectual property in accordance with internationally-accepted norms.

We should support the development of appropriate technological and other infrastructures. These range from digital networks right through to content management and user authentication services that make it easier to use networks effectively.

We should support the development of the distribution channels.

Libraries are obvious candidates but we should not forget book-sellers and other distributors of information content. Finally we should support the development of skills and services in the hardware and software industries.

Social Use of Information

The third characteristic of information societies is a high level of information use among the general public. People use information more intensively in their activities as consumers: to inform their choices between different products; to explore their entitlements to public services, and to take greater control over their own lives. They also use information as citizens to exercise their civil rights and responsibilities.

Along with this increased use goes the emergence of a set of intellectual rights that define citizenship in an information age, much as political rights did a century ago. These rights range from the right to protect one's intellectual property and personal data, through to rights of access to information.

This characteristic of an information society is one in which the library and information profession has a very important role to play. We should take action to develop appropriate services. We should ensure that our existing services, particularly public libraries, meet social information needs. We should, however, go beyond this and support the development of community-based information and advice networks.

We should take action to ensure that appropriate information is created and made available by public authorities and by a wide range of other institutions and organizations. Everyone should be able to make use of the information that they need in order to make appropriate consumption choices and to play their part as citizens.

This calls for a ready supply of appropriately skilled staff. We need

information professionals who have the skills and temperament needed to meet social information needs. We also need to encourage other professionals and service providers to manage and communicate information.

Once again, we need to support the development of legislation and regulation. Here I am thinking particularly of freedom of access to official and other information. As society becomes more information-intensive, it will also be important to have robust data protection legislation.

Finally, we should all work together to ensure that social exclusion is not compounded by a society divided into the information-rich and the information-poor. The rich have always had, and will continue to have, access to the information they need to keep them rich. The challenge is to ensure that the poor have access to the information they need to overcome their poverty.

A Learning Society

The final characteristic of information societies is the importance that they attach to lifelong learning. Knowledge is a key asset and knowledgeable people with a high level of information-handling skills are an essential component of organizational and social life.

This presupposes a fairly high level of initial education and training. It also requires a continuing process of learning and renewal. The significance of this characteristic is such that some, such as the European Commission's High Level Expert Group on the Information Society, prefer the term 'learning society' to the more commonly used 'information society'.

In an information society, lifelong learning is a reality for everyone. All members of a society are able to build continuously on a foundation of basic education to develop and renew skills and to go beyond this to enhance and enrich their intellectual capacity so that they are able to grow with the society as it develops.

To achieve this will call for a special effort from the library and information community. We must ensure that we have effective library services that support all forms of education and learning, both formal and non-formal. In particular, this means an effective public library service that can support non-formal learning among all age groups.

An important aspect of this provision is the employment of information professionals who understand the learning process and who can manage the information materials that support learning. Finally, we need to ensure that, in all communities, there is ready access to a wide range of learning materials of all kinds.

A Framework of Policy

To contribute to the development of an information society, library associations need, I believe, frameworks of policy that embrace three related concerns: the promotion of effective library and information services; the development of information-handling skills and the creation of an appropriate legislative and regulatory framework.

Service Promotion

Library associations all over the world need first of all to promote the development of effective library and information services. Such services are integral parts of an effective information society and the professional association needs to be in the forefront of their promotion.

This should start with the promotion of existing services. These are seldom adequately resourced and, in most countries, there is a significant need to persuade policy-makers to give the services the funding priorities that they deserve.

We should also, however, be aware of the need to fill gaps in the present provision. We should identify areas - geographical or in terms of subjects or groups of users - that are not adequately served by exist-

ing libraries and information services. We should also work with others to establish new forms of services to meet emerging needs - the networks of community-based information and advice services are a case in point.

As information professionals, we also have a role to play in encouraging individuals and organizations to use information effectively.

Skills Development

The associations have a role to play in stimulating the development of information skills.

First and foremost, there is the need to educate and train a cadre of skilled information professionals who are capable of responding positively to the demands imposed by an information society.

There is also a need to develop information-management skills in other professionals. These range from generalist managers and others, such as engineers or accountants, who need to process information internally within their organizations, through to people like health-care professionals and lawyers who need to provide information to their clients and customers. Most professionals would benefit greatly from training that would enable them to use information more effectively.

Finally, there is a need to support the widespread development of information-handling skills as part of everyone's formal education. Basic information handling should be an integral part of the school curriculum. But it should not stop there. College and university students need help to enable them to use information effectively. Then there are all the adults who missed out on basic schooling or who failed to develop their information handling skills. They, too, need access to non-formal courses and other forms of support that will enable them to become better at managing information.

Legislation

Library Associations are well-placed to support the development of an appropriate framework of laws and regulations.

The obvious requirement is for a set of intellectual property rights that will both stimulate creative endeavour and provide access to information by those who need it. Here, the balance is important. People need to be able to profit from their creative work and, just as important, they need to be able to prevent others profiting at their expense. But this need must be balanced against the need for information to be accessible and used as widely as possible.

As the information society develops, and particularly as electronic commerce grows, it becomes more and more important for individuals to be able to protect their personal information. Privacy and data protection legislation is regarded as an essential component of an equitable information society and, as information professionals, we might reasonably be expected to argue in favour of it.

Similarly, we need better access to official and other information. Most advanced countries have introduced laws to provide freedom of access to government information. But things should not stop there. As citizens and consumers, people need easy access to a wide range of information that others would prefer to keep secret. We should add our voice to those arguing for rights of access.

Then there is the question of censorship. Led by our US colleagues, the international library community has argued strongly against all forms of censorship. This attitude, however, reflects a particularly American form of political philosophy. There are many who argue that such a philosophy is not appropriate in all countries - there is even a growing group who argue that it is undesirable in the US. We need, I believe, to re-assess our stance on censorship in the light of a profit-

driven global mass communications system.

Underlying Principles

When formulating a national policy for libraries and information services it is, I believe, important to bear in mind four underlying principles: the policy should be based on a clear vision of the future; it should be inclusive and should avoid excluding individuals or groups; it should recognize the interests of other stakeholders in an information society; and finally, it should seek to build on international partnerships.

Vision

The policy seeks to shape future development. It is important, therefore, that it is based on a clearly articulated vision of what that future will, or should be. In many ways this is the most difficult part of the exercise but people have a right to ask what it is that the policy is working towards.

Having articulated the vision of an information society, and the library and information profession's role within it, the professional association should then work to build a consensus around the vision. This should start with members of the profession so that everyone directly concerned is aware of what is to be achieved. But the consensus should extend beyond the profession to the government and to other partners and stakeholders in the information society.

Inclusiveness

It is important to recognize that, in shaping an information society we need to mobilize more than just libraries and librarians. We form a natural grouping with other information professionals and with colleagues in archive services and museums - the so-called 'memory institutions'. Too often, professional associations of librarians have, in one way or another, excluded these other professional groups. In doing so we have weakened our voice unnecessarily.

We should, therefore, aim to include rather than to exclude the other groups of workers who have a related contribution to make to the creation of an information society. We should try to speak with a united, unified voice on behalf of all information professionals.

One Among Many Stakeholders

Even if we unify the information professionals, we should recognize that we do not have a monopoly of concern. As the diagram shows, we are simply one of a number of stakeholders in the information

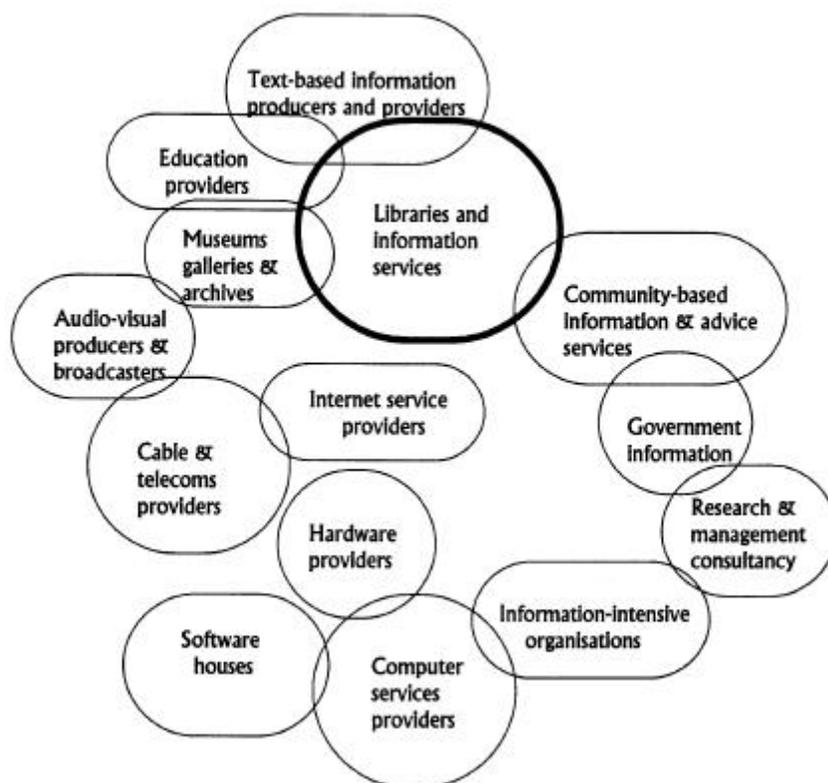
society and our policy should take account of this.

The policy for libraries and information services should recognize the existence of other groups and the contribution that they can make. We should find ways of working together with them, building alliances and providing mutual support.

International Partnerships

The transition to societies based on the exchange and use of information is a global phenomenon and there is much that can be learned from other countries. Individual associations should seek to form international partnerships and, through these, to influence the agendas of multi-lateral organizations like UNESCO and the World Bank.

Stakeholders in the information society



Conclusion

We live in interesting, exciting times. We need to develop a framework of policies that will enable us to take maximum advantage of the opportunities that are presented to us while minimizing the harmful consequences of what might result.

