

Global Knowledge: a Challenge for Librarians

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It is a great pleasure and a privilege for me to be here with you today. What I should like to do is explore with you how information



and communication technologies are creating the knowledge society, and how this will impact on developing and transitional economies as well as developed nations. I shall say something about the digital divide, and suggest that librarians have an important role to play in overcoming it, especially if we work with the Global Knowledge Partnership.

The middle of August has always been a good time for me - not just because of the IFLA conference, but also because it is my birthday this week. This year I received one of those cards which plays a tune - they are cheap and commonplace - but each card contains more computing power than existed in the whole world at the end of the second world war. I'm sure we all know the so-called law of information technology which states that computers double in power each year, and halve in price. (Of course, there's another law which states that Windows needs twice as much space every year, but we'll leave that aside for now.) What's essential, as Nicholas Negroponte at the Massachusetts Institute of Technology has stressed, is that the growth is not linear but exponential, and in

any exponential curve, most of the gain comes right at the end. Now, after fifty years of development, the curve is almost vertical and we are in the midst of a revolution - or, if you are more optimistic, a renaissance - made possible by information and communications technologies (ICTs). What we couldn't imagine yesterday is possible today, and will probably be done tomorrow.

Defining a revolution-in-progress is like mapping the lava flow from an active volcano - well nigh impossible and extremely dangerous. Almost every aspect of our lives seems to be changing; and it does feel as if many of the familiar economic, political and social structures of the 20th century are being eroded and reformed for the new millennium. It can be difficult to determine cause and effect, but I think it is plausible to say that the rapid development and convergence of communications, computing and digital content is enabling the globalization of production, stimulating enterprise and creativity. This is what is meant by the 'knowledge driven economy', recently defined by the British government as "one in which the generation and exploitation of knowledge plays the predominant part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about more effective use and exploitation of all types of knowledge in all manner of economic activity".¹ In fact, knowledge-based goods and services already make up over 60 percent of OECD countries' wealth production, and the knowledge economy - which includes information and communication technologies, publishing, media and research - is the fastest growing part of the global economy.

But the changes are not just economic. One reason for this is that we are also seeing the globalization of expectations. These can be material expectations, but they can also be political, cultural and education-

al, and these expectations are beginning to challenge the role and sovereignty of the nation state. So too does the fact that knowledge-based industries are highly mobile and distributed, and thus not easily regulated within national borders.

However, the shift of power is by no means all upwards to supra-national organizations. Information and communication technologies also empower local communities (and geographically distributed virtual communities, too): we see this most clearly in the United Kingdom right now, as the Westminster government cedes authority both to the European Union and to a new parliament in Scotland.

And the knowledge society enables (perhaps requires?) more participative democracy and stronger civil society institutions - for if the key commodity is knowledge, then such values as openness, trust and legitimacy are crucially important. I should, of course, include library associations amongst the fundamental civil society institutions.

This knowledge revolution - or renaissance - is not just a matter for the richest countries, for the fifth of the world's population which consumes 84 percent of its total income. The information and communication technologies have the potential to improve the lot of the most disadvantaged. There is now wide recognition that information and knowledge are key in the fight against poverty. As Kofi Annan put it back in 1997: "Information and knowledge are expanding in quantity and accessibility. In many fields future decision-makers will be presented with unprecedented new tools for development. In such fields as agriculture, health, education, human resources and environmental management, or transport and business development, the consequences really could be revolutionary. Communication and information technology has enormous potential, especially for developing countries and in furthering sustainable development."

How might this happen? The United Nations *Human Development Report 1999* suggested three principal ways:

- Firstly, by providing information - that is to say, for example, by allowing doctors in isolated hospitals, teachers in under-funded universities to access a wide range of current and desperately-needed information and distance-learning materials without having to meet the huge infrastructure and running costs of traditional libraries.
- Secondly, by empowering small players to compete in the global marketplace. The Internet gives small and medium sized enterprises the ability to cut administrative costs, respond quickly to changes in demand, and supply world markets - in other words, to begin to challenge the big corporations. The emergence of India as a world player in the software industry demonstrates this, and there are plenty of smaller, non-technical successes stories too - such as Tropical Whole Foods, a UK company selling fairly traded fruits from co-operatives and small businesses in Africa which has been transformed by the ability to coordinate marketing and production information using e-mail, thus preventing stockpiles and shortages in a way which not long ago would have only been feasible for multinational corporations with integrated data networks.
- Thirdly, in the political arena, the Internet can empower poor countries. In 1990 more than 90 percent of the data and the debate about Africa was held in the US and Europe, largely inaccessible to African policy-makers and academics. The Internet can change that - but not just for governments. Non-governmental organizations have gained increased power and influence over the last decade largely because they can quickly generate global campaigns using the web. And of course threatened minority groups world-wide - for example in Indonesia and Yugoslavia - have made very

effective use of the net to ensure that their voice is heard. The Internet is a major factor in the political shift away from non-interference in other countries' internal affairs, which (whether you approve or not) has characterized global politics over the last decade.

So, we find James D. Wolfensohn, President of the World Bank said to the UN just last month: "Don't let people talk to you about [the] Internet being a luxury. While it is not an alternative to bread, it gives us the opportunity of bringing knowledge and opportunity to people at all levels throughout the world. It is time to grasp that. It is time for us to pledge to each other in international institutions...the private sector, civil society and [government] to come together, and make sure that this new age, not the agricultural revolution, not the industrial revolution, but the digital revolution, gives equity to poor people throughout the world."²

But realizing this opportunity will, before anything else, require a huge investment in connectivity. Is it really going to happen?

In a bid to leapfrog stages of development, some transitional economies are investing heavily in building up information age infrastructures. Malaysia's '2020 Vision', for example, is a clear attempt by its Government to create within the next twenty years an information rich society, which they hope will confer on the country the status of fully developed nation.³

In fact, as far as IT infrastructure is concerned, there is some ground for optimism almost everywhere in the world. Thanks to the rapidly declining cost of wireless and fibre-optic networks, and supportive government policies, huge investment in several key countries does mean that the gap between the most developed nations (which already have more than one phone line per household) and the rest is narrowing fast. China, in particular, is showing phenomenal growth in telecommunications.

Lines per 1000 people ⁴	1990	1998
China	6	70
India	6	22
Vietnam	21	56
Botswana	21	56
All developing countries	21	58

In the sixty countries which account for 90 percent of the global telecommunications markets, 400 million new subscribers were connected between 1995 and 1998 - twice as many as in the preceding three years.⁵ So dramatic is the change that, in 1998, the UN's Commission on Science and Technology for Development could say: "It is remarkable that...the rates of growth of the telecommunications infrastructure are sufficiently rapid that convergence is foreseeable for the majority for the world's population."⁶

Globally, we can see near-exponential growth in Internet use, too. Accurate numbers are more difficult to obtain, but probably close to half a billion people are already connected, and the UN expects the figure to reach 700 million next year. And remember just how quickly the web has developed - radio took thirty-eight years to gain 50 million users, and television thirteen years, but the web took just four.⁷ And, whilst it is true that the typical web user has been a rich, highly educated, English-speaking white man, it is encouraging that 35 percent of users are now women (up from 15 percent in 1994) and that by 2003 non-English material is expected to account for over half the content on the web.⁸

Of course, there remains a close correlation between connectivity and GNP per capita, and as this UN forecast shows, wide telecommunications access remains a dream for very many countries, particularly in Africa:

Convergence and catch-up in telecommunications⁹

10 years	Indonesia, Malaysia, Thailand, European developing countries, Middle East (West Asia)
15-20 years	China, Eastern Europe, Other Asia, Maghreb, Caribbean, South America
30 years	Other North Africa; developing Oceania
out of sight	Sub-Saharan Africa, Central Asia



However, we must factor in the added impact of community-based telecommunications. I don't need my own private line to make a call, or my own PC to access the web. I'd like to share with you a couple of inspiring stories:

- The Grameen Village Pay Phone scheme is bringing the information revolution to the rural people of Bangladesh and is generating a new breed of entrepreneurs: village women. The women, having first taken a loan from the Grameen Bank to set themselves up in business, make a living by providing a mobile phone service to their neighbours. This enables them to earn an income, which is usually higher than the national average. The scheme is also popular among local people who find that the new service is making their lives easier and more secure.¹⁰
- People in remote and disadvantaged communities in South Africa are gaining access for the first time to the Internet and other information age services via telecentres. These outposts of the Information Society, often community-owned and run, sup-

port local economic and social development by providing a wide range of information goods and services such as e-mail, fax, telephones, information on markets, weather conditions, crops, and access to public services such as distance education, telemedicine etc. South Africa's strong commitment to increasing the availability of information and knowledge for its historically disadvantaged peoples has put its telecentre policy at the forefront of international good practice.¹¹

With initiatives like these, it is quite feasible that the majority of the world's population will have telecommunications access within the next 10-15 years, and that this will deliver data, as well as voice, at affordable cost.

The knowledge society, then, is upon us. It has the potential to be a powerful tool for development - perhaps the key tool. But there are formidable challenges. Developing the appropriate skills and content will be far more difficult than building the telecommunications infrastructure. There are real risks:

- Will there be wide and equitable access? Or a growing divide between the information rich and information poor - both between countries and within individual countries - and, overall, a worsening north-south information gap, possibly leading to political conflict?

- Will content be varied and appropriate? Or will it be controlled by a small number of monopolies, meaning that certain content is marginalized? Remember how much global consolidation there has been in the publishing and media industry over the last decade, and the fact that in 1996 there were 5,300 database vendors in the United States, and just eight in Africa.¹²
- Will all user communities have the necessary skills? Or will information illiteracy be the new sign of exclusion?
- Will the values of the knowledge society encourage participation by individuals and by civil society institutions; will they promote open access, and respect a multiplicity of cultures? Or will the values be determined entirely by business? Or will dominant ideologies restrict debate?
- And finally, the knowledge society will require partnerships between governments, the private sector and civil society. Will we have the right partnerships in place?

Put together, these risks - or challenges - constitute 'The Digital Divide'. Alongside debt relief, organized crime, genetically modified foods, AIDS and the environment, the digital divide featured prominently on the list of topics discussed at the Okinawa G8 summit a few weeks ago. The leaders of the eight most industrialized democracies have pledged themselves to pursue the aspirations of the Okinawa Charter on the Global Information Society and to find ways to bridge the digital divide.¹³ A Digital Opportunities Task Force has been set up to develop recommendations for global action in this area, and IFLA has already indicated to each of the G8 governments that it wishes to be involved. It is unfortunate that criticism of the G8 summit's policy on debt relief has damaged its important message about the digital divide.

G8 is by no means the only body committed to ending the digital divide. A few years ago, the World Bank began exploring the complex

relationship between knowledge and development and made a case for the need to address information problems as a way to eradicate poverty and improve people's lives. The findings, which were later published in the groundbreaking 1998/99 *Knowledge for Development Report*, were the subject of an international conference in 1997 in Toronto.

The conference resulted in the establishment of the Global Knowledge Partnership, a grouping of over sixty international organizations, united in their commitment to ensure that developing countries benefit from appropriate and sustainable investment in ICTs. The membership is drawn from government, donor agencies, non-governmental organizations, the media and the private sector. Prominent members include the Government of Malaysia, the European Commission, United States Agency for International Development, the United Nations Development Programme, UNESCO, Cisco Systems, Sun Microsystems and the British Council. The World Bank Institute in Washington currently hosts the secretariat.¹⁵

The GKP defines its purpose as "to work in partnership to help people access knowledge and harness ICTs that will help them improve their lives". It plans to help communities:

- acquire knowledge, information and technology that can improve their lives
- obtain the tools of knowledge such as telephones, radio, television and computers
- use modern technologies, especially computers and the Internet, to increase opportunity for sharing and learning together.

The Partnership is currently developing a plan of action, which will bring partner organizations together to work on a portfolio of projects. The plan comprises over twenty projects addressing the partnership's three priority themes - access, empowerment and governance - and four crosscutting issues - youth,

the media, gender and local (community-based) knowledge.

IFLA has recently submitted an application to join the Global Knowledge Partnership. This is a welcome development, one that will highlight the pivotal role the information sector - libraries, publishers, information providers and content creators - play in the knowledge society. It is also an opportunity for us to reflect on the opportunities and challenges which face us, the library and information profession, in this new age.

In talking about the knowledge society I have focused on the digital divide as an issue in world development. I've done this because I wanted to tell you about the Global Knowledge Partnership, and tempt you to get involved in its debates and projects. But I also wanted to stress that the knowledge society is not just an issue for librarians in California, Cambridge or Kuala Lumpur. The digital divide exists within nations as well as between them, and the solutions must be global.

So, what can libraries and librarians offer?

Well, quite a lot. As it happens, our traditional contributions -

- providing access
- working in partnership
- structuring knowledge
- imparting skills
- preserving heritage
- and inspiring trust

all remain crucial in the knowledge society.

Providing **access** to information has traditionally been about buildings, based around institutions offering services to on-site users. Building tomorrow's libraries will not simply be a matter of installing rows of computers with Internet access: our users will increasingly expect to be able to access material from where they live and work. Providing access will increasingly be about developing electronic information services such as Internet portals and acting as a broker

between content providers and remote users. At the same time, I believe that even in the most wired communities there will still be a demand for physical spaces where people can not just access knowledge but can discuss, learn from and support each other. In less advantaged communities, the knowledge society simply won't happen without freely available public access.

Librarians have been surprisingly good at working in **partnerships**. We have a strong communitarian instinct. In the past we have needed to work cooperatively because no one library could have everything. That is less true in a digital world: in the future our key partners won't be other libraries but content providers and ICT companies. And we shall need to think of our users or customers as our partners too, because we shall be in the business of creating knowledge as well as providing information. For example, in universities we could be acting as electronic publishers; in companies we should certainly be acting as knowledge managers, capturing and sharing internal as much as external content; and in public libraries I believe our greatest value will be in strengthening communities by providing learning and networking opportunities.

The need to **structure knowledge** is as important now as it ever has been. Accessing the web today is like entering a large library, where there is no catalogue but where a deranged janitor has assembled in the lobby a few pages torn from the indexes of randomly selected volumes. We know, as information professionals, that this just won't do. Of course, we also know that traditional catalogues are not the answer. BrightPlanet estimates that, when all the content stored in databases is taken into account, the web is more than 500 times larger than the pages which can be found by popular search engines.¹⁶ Highly sophisticated retrieval software using language pattern recognition can offer users a dynamic and personalized view of networked content. The eXtensible Markup Lan-

guage (XML) offers the opportunity to create a more structured yet flexible web. We'll need to understand and apply these technologies - and be aware of their limitations and dangers. My guess is that despite the application of artificial intelligence to content management, real users in the real world are going to find the librarian's skills in selection and quality assurance invaluable for some years yet.

In this context, imparting information skills might well emerge as our most valuable role. Information illiteracy will be a key threat to prosperity and social inclusion in the knowledge society. Helping our communities to become critical consumers, confident learners and accomplished creators of knowledge will be a crucial task.

We will continue to be custodians of our cultural heritage, a role we share with archivists and museum curators. Our preservation role has already extended beyond paper-based materials to cover a multitude of different media, all with their own problems. There is now a real danger that vast quantities of our history, recorded electronically, will be lost forever. Solutions to the preservation of digital content must be at the top of our agenda.

Finally, the matter of trust. It is perhaps naive to talk of a professional code of conduct for librarians - we work in various cultures, for public and private employers each with their own values and objectives. But what we do have in common is our role as intermediaries working on behalf of the consumer. The trust we have earned doing this will be difficult to retain, as we get more involved in complex dealings with content providers and in the manipulation of increasingly fragmented information. But if we can succeed, then the librarian brand will be in worldwide demand.

This paper has been nothing more than an overview, full I know of simplifications and generalizations. Our conference programme is ample evidence that librarians everywhere are actively engaged in

finding detailed and practicable solutions to the challenges of the digital age. Yet most will admit that our role in the knowledge society is neither fully recognized nor understood. All too often major initiatives bypass the library sector, and the skills we have developed over generations are marginalized. It is time for librarians to stand up. We need major public relations campaigns to raise awareness of what we can offer, and we need to have a voice in the debate about the digital divide at community, national and global level. IFLA's involvement in the Global Knowledge Partnership is a major step towards that goal and I wish it every success.

Acknowledgement

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References

- ¹ United Kingdom Department of Trade and Industry, 1999.
- ² James D. Wolfensohn. Statement made at the United Nations 2000 Economic and Social Council on 5 July 2000.
- ³ <http://www.wawasan2020.com/vision/>.
- ⁴ Source: *UN Human Development Report 2000*.
- ⁵ Carl Dahlman et al. Republic of Korea: transition to a knowledge-based economy. Washington: The World Bank, 29 June 2000 (Report No. 20346-KO) p. 22.
- ⁶ Robin Mansell and Uta When. *Knowledge societies: information technology for sustainable development*. Oxford University Press for The United Nations, 1998. p.25.
- ⁷ *The Economist*, 1998.
- ⁸ <http://www.techserver.com>.
- ⁹ Based on Robin Mansell and Uta When, op.cit.
- ¹⁰ <http://www.grameen.org>.
- ¹¹ <http://www.centratel.com>.
- ¹² Wresch, Bill. *Haves and have nots in the information age*. Rutgers University Press, 1996.
- ¹³ <http://www.g8kyushu-okinawa.go.jp>.
- ¹⁴ <http://www.summitwatch.net/story.php3?type=ok&id=10>.
- ¹⁵ <http://www.globalknowledge.org>.
- ¹⁶ <http://www.completeplanet.com/Tutorials/DeepWeb/index.asp>.

The Management of Change in Electronic Libraries

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Introduction

The notion of the digital library (or electronic library or virtual library as it is alternatively known) is in some senses long standing - various



commentators have predicted its arrival for some considerable time. But if we argue that the library comprises more than just data, if we define it as the sum of not only information sources, but also navigational tools, metadata systems such as catalogues, human support systems and a suitable environment within which information is delivered, then we can say that the digital library is still in its infancy. We are only a short way down the road perhaps, with no real idea as to where it might eventually lead. In this paper I want to look briefly at how we have reached this point, and at some of the technical issues which are holding us back. As importantly, I also want to look at the medium term management problems relating to the delivery of digital libraries.

Critical to the current generation of information systems has been the steady progress in computerization of all or most aspects of library functions, beginning in the early 1970s with the development of computerized library catalogues, and moving through the development of

circulation systems, to the development of the integrated library systems (ILS) which appeared in many advanced libraries towards the end of the late 1970s and early 1980s. These integrated systems use a single software architecture to manage the core processes of libraries including cataloguing, circulation, acquisitions, and financial control and, with varying degrees, other associated but perhaps less critical functions such as inter-library loans and management information. One of the biggest milestones over this period was the development of the OPAC which revolutionized catalogue searching and first brought about the notion that libraries could, somehow, be distributed and that catalogues did not necessarily represent just the stock held within that particular building.

Integrated library systems have continued to develop a mixture of highly sophisticated functions but alongside these has been the parallel emergence of other systems concerned with the delivery of information to the users. Critical has been the development of online information delivered initially through standalone CD-ROMs, then through networked CD-ROMs and now through remote servers. Many of these have, in turn, been re-emerging as web-compliant databases providing even an average library with the opportunity to search enormous collections of data. As consequence, the ILS has become somewhat less central, particularly if it has been unable to embrace these newer developments.

Libraries have had to encompass these emerging services and often embrace them within a traditional library framework. This need - to be able to deal with conventional books and journals on the one hand and electronic resources on the other - has given rise to what has become known as the hybrid library¹, the notion being that it must at one and the same time deal

with both the plurality of e-resources, often with different interfaces and search engines, and with true Internet resources through gateway services - i.e. portals - and yet in parallel deal with traditional library books and their circulation. The scale of this challenge is extraordinary. Developed libraries can quote a whole series of discrete services built up over the recent past, which somehow need to be integrated. Chris Rusbridge, for example, the Director of the United Kingdom electronic libraries programme, notes¹ over eighteen in one library system, and my own library could quote probably as many and include: the catalogue, several CD-ROM systems (each of which have a different proprietary interface), web-based services, Internet search engines, gateway services, portals, Intranet information retrieval systems, etc. There is a distinct lack of uniformity in the approach so that users are faced with learning a multiplicity of search systems to undertake even a small scale literature search, particularly if they are working in cross-disciplinary areas.

Thus there are a number of technical barriers, which stand in the way of the development of the true digital library, and it is to these that I shall now turn. The first is the issue of integration. Digital libraries are increasingly dealing with a distributed environment where users require seamless access to both distributed and heterogeneous resources. What is usually advocated is a single point of access to a totality of digital library collections, which is adequately scoped to meet the needs of that individual. Such a system would retrieve a relevant set of references together with suitable annotations, be adequately deduplicated and effectively ranked. Much technical effort is ongoing towards that end. Some levels of integration have been achieved, particularly through the web itself, although that only offers integration at a rather shallow level. The international standard for interoperating between databases - particularly library catalogues - known as Z39.50 is little

used outside the library sector. The preferred option in the web community is the Resource Description Framework (RDF) which uses the eXtensible Markup Language (XML) as a tagging system. However, success is not guaranteed here either.

Meanwhile, outside the library sector we have seen the emergence of web portals and harvesting technologies, driven by knowledge management developments, which are capable of harvesting and collating resources into high quality and highly personalized subsets.

A second technical issue, which might be incorrectly considered trivial, is that we know very little about who the user is. In the electronic domain this is not a simple question. We need assurances as to the fact that users are who they say they are. They must be suitably validated by some other organization and we must have systems in place which permit them to do only what we would wish. The first level of that is authentication, which is the process of identifying users on the network and is usually brought about by a combination of username or password approaches or Internet Provider (IP) domain search and restriction. More sophisticated accreditation systems are coming through, but these are currently relatively little used in these areas, and are more common in e-commerce applications. There is a need to be more robust if we want to be involved in such systems. Once we have identified who someone is, there is a secondary process of authorization, which essentially says what he or she can do once they have access. This is particularly important for the managers of licensed resources and is even more critical in the context of the provision of primary and secondary sources and multimedia. The final challenge is the need for highly effective navigational tools to create seamless logical and understandable routes through the digital library.

Will libraries in the future disappear entirely? Rusbridge² argues

that libraries can be defined in three ways: as concept, as organization, as physical space. Though the concept of a library as a collection of information sources defined by certain boundaries will sustain, the boundary definitions will be more complex, deriving as much from consortial deals, usage issues and historical commitments to collections within a building. The digital library will be a more fluent concept capable of continuous change and modification and even defined by the end user as much as by the librarian as intermediary.

At an organizational level, licensed resources will still need to be selected and evaluated, contracts negotiated and all placed within the context of a suitable navigational system such as a web portal or a learning environment. Moreover, even the virtual library must have a context within which it operates, which might be the organized corporate context, but might also be the more local context of a research group or a university course or even at an individual level. Bookmarks recorded in a web browser or through personalized environments³ are in effect personalized digital libraries.

Finally, libraries as a physical environment seem on the surface the least likely to exist in a digital future. Access to web services can be got from most places with adequate connectivity which, with the increasing impact of mobile communications, means literally anywhere. Digital libraries will be free of the constraints of delivering audio and graphics and universally portable as individuals become able to access and maintain their own institutional view of the library. The counter arguments to this view are the rather bleak future which centres on the loneliness and isolation that it can engender. The argument goes that we still need spaces where users can come together, even if they are working independently, and which are conducive to long periods of screen use, are ergonomically designed, and have in place support systems and navigational help together with associ-

ated output devices such as colour printers or high definition screens. These centres are already merging as Internet cafes, resources centres, learning hubs and so on. Moreover, such centres are likely to coexist with more traditional provision permitting ease of use.

Management of Change

Managerial and change issues encompassing the move to digital libraries are substantial and involve both human and resource factors. Moreover, the changes are often difficult to predict, dependent as they are on the ever-changing nature of technology.

At the economic level, libraries in developed services are already aware of the problems, which derive from the need to maintain dual subscriptions to both electronic and traditional materials during this transitional period, which could last for some years. Users are often disinclined to make radical changes in their use of materials and resent electronic formats being imposed upon them; they also frequently require connectivity, machinery and IT or web skills to make best use of what is available. Moreover spiralling journal prices add to the extra cost burden so that any potential savings the library might feel would be brought about by electronic delivery are often difficult to realize.

One positive development has been the growth of consortial purchasing of bundled services which, as a consequence, should show some economy in budgets and also serve to democratize resource provision, especially for smaller institutions which can 'piggy-back' on larger organizations' resource requirements. However, we should be wary of purchasing policies which create redundancy in provision and that such bundled purchasing potentially enables access to large amounts of material which might be little needed. An alternative is that of part-work selling, though at this point there seems to be little enthusiasm at library levels for end

user charging or even for libraries to mediate in some similar arrangement. My suspicion is that this will come about in time, at least as a way of providing backup to core materials which will enable the shift to happen more quickly.

A third strand is a growth of web publishing at the individual or corporate university levels. Such activities may well precede traditional publishing. There is a steady growth of quality material now available on the web and accessible through the main search engines or through the more specialized web portals. Such personalized publishing will, in time, undermine traditional publishing structures and will most certainly bring down overall pricing mechanisms over a period of time.

Universities are beginning to assert rights over their own intellectual property and challenging the territory of academic publishing. For the library managers, the economics of digital library delivery are complex and changing. But it could be argued that the longer term signals are healthy, in that we may at least have seen the end of the spiralling costs of scholarly publishing, through a move from resources of defined quality to which access has to be negotiated and licensed, to those which are promulgated by the author, adding in the right descriptors so as to be retrieved through agent or similar technologies.

What then does the library manager need to do to ensure that this shift to electronic delivery is as smooth as possible? What are the factors that need to be addressed? I have categorized my own views under five distinct headings which derive from the analysis above. These are: strategic management; procurement; information technology; staffing; and staff development.

Strategic Management

To bring about a transition to new forms of library suggests that the library manager should provide clear and articulate vision as to

what the service might look like, how it might perform and how it will be evaluated at some future time. It should not be too far-fetched or so far beyond the imagination of staff as to preclude its acceptance, but it will be a matter of driving the service forward and ensuring that those charged with delivering the change feel some ownership of it. As importantly, it will need to encompass the views of the users, many of whom may wish to retain a traditional perspective on library delivery. Strategic plans will need to be sold on to the client base and achieve at least a respectable level of acceptance, particularly from the executive, though in the end it may not gain total acceptance of everybody within the organization. A good example of this might be our own drive towards the delivery of electronic rather than print journals. This has been formulated at the centre but we are having to undertake a programme of effectively selling the notion to various schools within the university, to ensure some acceptance of e-journals when they duly arrive. This has, to date, proved rather successful and we are now in the position where we are delivering more e-journals than we are traditional journals. The library manager involved in strategic management must be very focused and the vision should be reinforced to the staff at all levels.

Procurement

I have already talked about the economics of e-services and in some contexts this could well imply a difficult period of increased expenditure so as to achieve medium term economies. One route through that process is to seek collaborative purchasing with like-minded libraries. Such consortial arrangements have become common globally and are not only a way of reducing the expanding cost of material provision, but can also absorb the load of licence agreements and the legalities surrounding different approaches resulting from electronic libraries. To be effective consortia probably need libraries with similar

purchasing power or similar clientele so that the charges levied on constituent members begin to be equitable. Consortial approaches can also be used to develop digital content, underwrite the cost of digitization of material requiring conversion and so on, and are likely to become more a feature of library services as they become more distributed. All of this will elide the traditional role of the librarian as material selector.

Information Technology

Information technology can be problematic from a number of points of view. It may, for example, be without the librarian's control, in which case one is left with the need to reach sensible agreements with those supporting and delivering IT services to ensure that the services are reliable and available. Even if there is local control of library-related IT, institutional control may not rest with the librarian. In some countries we have seen the emergence of such support services become more the case, but is still not widespread. A lack of IT can be a factor which hinders the overall uptake of web-based services. There is a need to try to ensure at least a commonality of approach

and that basic software such as plug-ins, etc. are available institution-wide.

Staffing and Staff Development

Perhaps more critical than any of these is to ensure that staff structures are in place which will meet the new challenges of electronic delivery. This will imply analysing every function within the service and asking the question, is it appropriate to continue to work in this way or are there alternatives that will help us achieve the strategic goal of delivery mechanisms? The nature of the core business of a library will change and functions such as cataloguing, which it could be argued has been the absolute foundation of libraries for the past hundred years or so, might well be achieved by subsidiary agencies such as national cataloguing centres or global utilities. Technical services departments may have to find alternative roles which could imply cataloguing Internet resources, though even this begs the question would it be better done cooperatively. It would be foolish to achieve economy in traditional cataloguing methods merely

to replace it with another format and the development of the portals renders this unnecessary. Many library staff will need to be re-skilled, both to ensure their knowledge and increase awareness of the accent in user support. Librarians will also need to promote themselves as knowledge managers, as web information managers.

In summary, we are going through a period of rapid change in the delivery of library services and need to re-think and constantly reinvent what we are. The library of the future will be as concerned with adding value to information resources and providing support and guidance as it will with acting as custodians of print material. These will be enormous challenges which we will all need to address if we are to find our place in the sun.

References

1. Rusbridge, C. "Towards the hybrid library." *D Lib Magazine*, July/August 1998. <http://www.dlib.org/dlib/july98/07contents.html>.
2. Rusbridge, C. "Of arms and the man we sing." <http://www.ariadne.ac.uk/issue18/rusbridge/intro.htm>.
3. <http://www.headline.ac.uk/public/diss/nl-pie.pdf>.

Technological Discontinuities in the Library: Digital Projects that Illustrate New Opportunities for the Librarian and the Library

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Introduction

The concepts of competition, technological discontinuities, and innovation are typically found in a business environment, however



these concepts can also be very useful in examining libraries' current practices and establishing new directions and opportunities. Although my framework here is the university and research library, I believe that these concepts will become relevant for all libraries.

Competition

What does competition mean for the library and does the library have competitors? Typically, another institution, business, or person is a competitor if they are taking part of your market share. One measure of a library's market is the number of reference questions dealt with at the reference desk or through electronic reference. We have experience at Rutgers University which indicates that we have handled 23 percent fewer reference questions in the 1998/1999 academic year than we did in 1996/1997 academic year (Boyle, 1999). There are many ways to deal with this problem and, as one approach, reference librari-

ans are pursuing improved methods for delivering reference service (Lipow, 1999). What we are faced with is a competitive threat. In some respects, the threat is very amorphous and difficult to identify and is represented by the millions of web 'publishers' who distribute information on the Internet. Our library users and patrons are finding this information and using it in lieu of the scholarly information available to them in the research library. In other cases, the threat is more clearly and easily identified. What would we do if Amazon.com decided to enter the book lending business? Alternatively, InfoRocket (www.inforocket.com) is a new company which offers reference services through a web auctioning process similar to eBay. In effect, anyone on the Internet could become an amateur reference librarian. Perhaps closer to home is the assertion by Dr. Michael Kurtz, an astrophysicist at Harvard University. He flatly states that "librarians could not have helped us" to organize and make available the most important research resources to others in the field (Marcum, 1998). The point of these examples is that we do have competition and we need to recognize that there are serious threats not only to the library as an institution, but perhaps more importantly to the users of a library and the quality of information that they are obtaining.

Technological Discontinuities

A technological discontinuity is represented in a new technology or in the re-packaging of a set of existing technologies that results in quickly obsoleting a product or service. An example from the 1960s is the introduction of the electronic calculator. In a very short time, slide rules and mechanical calculators disappeared and, in some cases, the

companies that made these products disappeared when they could not adapt to or find ways to use the new technology. Another more recent example is that of using the Internet and the TCP/IP protocol to transport voice calls. This application of the Internet represents a technological discontinuity for traditional telephone companies and provides an opportunity for small entrepreneurs to enter the telephone business with relatively little investment. In general, the Internet and the web represent technological discontinuities for the library and thus both an opportunity and a threat for the future. As just one example, as we train our reference librarians to do Internet reference using search engines, portals, and web research guides we are finding less use of the Library of Congress classification system, a system which most students find obscure and confusing.

Innovation

Librarians pride themselves on being able to understand user needs, organize information, and provide effective access to information. These skills represent the traditional competencies that are part of what makes a library a success. However, the opportunity that technology offers and the threat of technological discontinuities suggests that we are entering a new era in which it is "more important to know what we don't know than to know what we know" (Berghel, 1999). One way to respond to these threats is by creating an innovative environment within the library that will harness the power of new technology by generating new services. Innovation is an intriguing part of human behavior and it has mysterious and desirable aspects such as creativity. Library administrators should foster more innovation in their institutions, however they may find this human behavior difficult to stimulate and even more difficult to do well. Zairi (1992) provides an excellent definition of technological innovation that helps set the framework and context for this paper: "Technological innovation is the

process by which industry generates new and improved products and production processes. It includes activities ranging from the generation of an idea, research, development and commercialization to the diffusion throughout the economy of new and improved products, processes, and services."

How does one do innovation? For many years, the concept of 'skunkworks' has been a very successful and interesting innovation process within corporations (Bennis and Biederman, 1999). Frequently a 'skunkworks' operation can be a very innovative process because of the empowered environment, lack of formal processes and the absence of bureaucracy. Business consultants (Hamel and Prahalad, 1994) have long urged innovators to examine the 'white space' or the 'cracks' between traditional markets to find opportunities for new products and services. As introduced in the next section, the Scholarly Communication Center is examining these 'cracks' within the context of library needs and competencies in order to prototype and trial new products and services. As in most library endeavors, partnerships are essential.

Projects and Partnerships

At Rutgers University Libraries (RUL), we have established a center in which new technology can be evaluated with the objective of enhancing library services or creating new products and services. The Scholarly Communication Center (SCC) (Collins, Fabiano, et al, 1999) within RUL was officially launched in October 1997 and has pursued initiatives in teaching, scholarly communications and electronic publishing. Our efforts in the SCC are a catalyst to bring together experts in subject content, technology, and library services in order to forge new partnerships and prototype new services. The SCC has provided a unique opportunity to experiment and innovate and this section will briefly describe four projects which highlight the partnerships, the technology and the

lessons learned from our experience.

Medieval Early Modern Data Bank

In the Spring of 1998, the SCC joined with Rudolph Bell, Professor of History at Rutgers, to develop a website (Bell, Jantz, and Khanna, 1999) for finding and retrieving data from the Medieval and Early Modern Data Bank (Bell and Howell, 1996). The Medieval and Early Modern Data Bank (MEMDB) is a project established at Rutgers University and originally cosponsored by the Research Libraries Group (RLG), Inc. MEMDB is co-directed by Professor Rudolph M. Bell of Rutgers University and Professor Martha C. Howell of Columbia University and has an objective to provide scholars with an expanding library of information in electronic format on the medieval and early modern periods of European history, circa 800-1815 C.E. MEMDB contains five large data sets, three pertaining to currency exchanges and two pertaining to prices from the medieval period. Scholars can use this data source in many different ways. For example, by examining prices of commodities from the medieval period, a researcher can show a correlation between prices and major events such as shipwrecks or epidemics. Through this partnership between librarians and teaching faculty, MEMDB is now available worldwide to scholars, students of history and others who will find unique ways to utilize this valuable source of data.

GIS in the Social Sciences

Geographic Information Systems (GIS) tools provide powerful digital mapping capability and can be used in almost any academic discipline. GIS offers social scientists a new tool for conducting and presenting research, yet GIS remains the province of the more traditional geospatially oriented departments such as geography and urban planning. For a state university like Rutgers, there are many researchers who want to develop and analyze data to demonstrate trends, support a developing theory, or to use the technology for instructional purposes.

es in the classroom. The project discussed here demonstrates how the SCC has extended this powerful GIS technology to other departments within the university. In this role, a librarian brings together technology, data, tools and training within a library setting. In this specific project, we discuss a collaboration with one of the political science professors at Rutgers University in order to provide a course entitled "community organization" which focuses on specific cultural, health, and business issues relative to a small urban area in New Brunswick, New Jersey. The political science course referenced here presented quite a challenge as articulated by Professor Michael Shafer. The objective was to teach junior-senior level students to use a powerful GIS tool to map census data about certain urban areas in New Jersey. Four of the course lectures were dedicated to this aspect of the course in which the RUL data librarian presented the essential elements of the mapping tool and how to import and map census data. This experiment in using GIS in a political science course highlighted the difficulties of using sophisticated computer tools in a classroom environment and the delicate balance between the pedagogical aspects of the course and the practical application of technology.

Eagleton Public Opinion Data

Research data is an under-utilized resource in academic settings primarily because of the difficulty in accessing the data and the tools required for effective manipulation of the data. In collaboration with the state premier polling agency, the Eagleton Institute, RUL and the SCC have provided access to New Jersey public opinion data via the web. To address some of the data complexity issues, the website (Jantz, 1998) has provided the following capabilities:

- search and browsing the poll database by title, date and keyword
- viewing the questionnaires online

- examining specific question results
- downloading data files in a file format that can be directly imported into the Statistical Package for the Social Sciences (SPSS).

Standard web publishing technologies and the statistical tool SPSS were used to generate the question results from the raw data and to present this data on the web. This feature is especially noteworthy since it enables users who are not familiar with tools like SPSS to actually view and use the data. In addition to providing public access to this valuable set of research data, the Eagleton website was recently used in an undergraduate political science course to introduce students to quantitative methods.

Alcohol Studies Database

This last example represents a collaboration within Rutgers University Libraries and illustrates a new genre of information sources that are delivered through the web, are subject specific, and continuously evolve as new material becomes available. For some time, a sizable research reference database including journal articles, books and book chapters has been available at the Center for Alcohol Studies at Rutgers University. As in MEMDB and the Eagleton Polls, this database represented a significant research resource that was accessible only through librarians at the Center for Alcohol Studies. The database of over 50,000 citations is now available through the web (Page, Jantz, and Mead, 2000). The search interface presents thesaurus terms in three categories of physiological aspects, social aspects, and drug terms in order to provide a standard vocabulary and effective searching to the user. Sophisticated Boolean operations can be easily constructed using pick-lists and the search can be limited by special categories such as populations or audience. To publish this database on the web, we have used standard database technology and a database publishing tool called ColdFusion (www.allaire.com). In order to

streamline this publishing process, we have also developed a reusable platform that consists of the software technology above and a repeatable process that uses a website template and a standard bibliographic database definition. The database definition and website template can be quickly customized to highlight the specific content and unique characteristics of the specific database.

The 'e' Connections

We are continuing to explore new and exciting possibilities that we believe will help the Library discover innovative and valuable services. Although we are inundated with the commercial jargon that prefixes many of our products and services with the notation "e-" (e-library, e-journal, e-encyclopedia, e-book), these areas all represent potential technological discontinuities for the library. In another emerging project with Professor Rudy Bell, we are contributing organization, design, and technology enablers as part of a new history honors course on medical advice in the medieval period. Students will search, find, and download to a local SCC archive electronic books (e-books) from a vendor's site. Since the books are from the medieval period the text cannot be easily character recognized and thus the books are represented as digital images. As part of this course, the students will have an opportunity to use e-book appliances for the book images rather than print a copy of the book. The e-book is a perfect example of the 'cracks' between traditional library services and it represents a potential discontinuity for the library. Here is a book with no permanent content so how does one catalog such a product. One can easily imagine library servers that enable users to download books to their portable reading devices, yet there is at present no institutional framework to handle a device such as an e-book. And, as one might expect, there are a variety of vendors offering e-book products, some of them clearly thinking about the library market as a potential source of rev-

enue. Through this technological innovation, we stand to lose another part of our traditional product base or we can aggressively pursue approaches to using this technology in the library.

There are many other opportunities that are emerging for the librarian and which also represent potential discontinuities. Internet reference offers the capability to deliver reference service 'anytime, anyplace' and is a service that our users are demanding. With technologies such as voice on the Internet and streaming video, we can imagine sophisticated and effective Internet reference. As indicated in the introduction, commercial vendors are already entering into this arena by auctioning reference service and producing web-based research guides.

Conclusion

This paper has described several endeavors in the Scholarly Communication Center that illustrate how librarians can undertake technology oriented projects that benefit both research and the classroom and which illustrate how we can address the threats from technological discontinuities. The projects demonstrate that:

- prototyping is an effective tool to understand potential new services
- reusable platforms reduce time to market
- new technologies in combination with traditional librarian competencies offer the opportunity for new services
- platforms offer ways to encapsulate knowledge so we don't lose it.

As learning and education are transformed by the digital revolution, we can expect a further dissolution of the traditional structures of the library. The research library must transform itself to keep pace

with this revolution and to fully utilize the innovations in network and computing technology. In undertaking this transformation, as Lynch points out (1999), "we've chosen to emphasize extrapolation rather than identify and understand emerging discontinuity." We will no longer be able to provide effective service by using analogies to what we have done with our print resources. Librarians can deal with the impending technological discontinuities by learning about and becoming experts in the competencies of innovation and partnership. Innovation suggests that we look for totally new paradigms to provide information service and that understanding what we don't know might be more important than relying on what we know. Partnership competencies suggest that we strive to understand how the professionals in our respective subject areas conduct their research and teaching and how we can become part of their team. Bringing together special competencies and new technology in an innovative environment can result in new products and services in the library that will provide tremendous benefits to our users.

Some time ago in a reference to the challenges of innovation, Steele (1983) described the "gauntlet of innovation" as a process that has many barriers. To successfully negotiate the technological revolution in libraries, we need not only new ideas and a stimulating environment in which they can grow, but we also need people who believe in new products and who will undertake the difficult tasks of building them. These people are the champions of new ideas and they will need lots of support to flourish in an environment steeped in tradition. Innovations will be lost without these champions.

References

Bell, R. and Howell, M. (eds.). (1996) *Medieval and Early Modern Data*

Bank. Stanford, CA: Research Libraries Group.

Bell, R., Jantz, R. and Khanna, D. (1999). *Medieval and Early Modern Data Bank*. Available at : <http://scc01.rutgers.edu/memdb>.

Bennis, W. and Biederman, P. (1999). "The skunk works." In: *Organizing genius: the secrets of creative collaboration*. (pp. 117-130). New York: Addison-Wesley Publishing Company, Inc.

Berghel, H. (1999). "The cost of having analog executives in a digital world." *Communications of the ACM*, 42, (11), 11-15.

Boyle, J. (1999). *Annual Report, 1998/1999*. Public Services and Communications: Rutgers University Libraries.

Collins, B., Fabiano, E., Langschie, L., Toyama, R., and Wilson, M. (1999). *Building a Scholarly Communications Center. Modeling the Rutgers experience*. Chicago: American Library Association.

Hamel, G. and Prahalad, C. (1994). *Competing for the future*. Boston: Harvard Business School Press.

Jantz, R. (1998). *Eagleton Public Opinion Polls*. Available at: <http://scc01.rutgers.edu/eagleton>.

Lipow, A. (1999). "In your face" reference service. *Library Journal*, 124, (13), 50-52.

Lynch, C. (1999). "On the threshold of discontinuity: The new genres of scholarly communication and the role of the research library." In: H. Thompson (ed.), *Racing Toward Tomorrow: Proceedings of the Ninth National Conference of the Association of College and Research Libraries, April 8-11, Detroit, Michigan*. (pp. 410-418). Chicago: Association of College and Research Libraries.

Marcum, D. (November/December, 1998). "Educating leaders for the digital library." *Council on Library and Information Resources*, (6), 1-4.

Page, P., Jantz, R. and Mead, V. (2000). *The Alcohol Studies Database*. Available at http://scc01.rutgers.edu/alcohol_studies.

Steele, L. (1983, November/December). "Managers' misconceptions about technology." *Harvard Business Review*. 133-141.

Zairi, M. (1992). "Managing user-supplied interactions: management of R&D activity." *Management Decision*, 30, (8), 49-57.

Internet Librarianship: Traditional Roles in a New Environment

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Introduction

The Internet is democratizing information, empowering the masses and allowing end-users access to a vast array of resources.



It is also significantly altering the work of information professionals. This paper will look at some of the roles that information professionals have developed and will suggest that the skills that support these are as relevant as ever in this new networked information era. This paper will go on to consider how these roles and skills transfer into a networked environment with reference to experience drawn from my own work as an Internet Librarian.

Changing Environment

The main focus of this paper will be on the most notable change to affect the working practices of librarians in recent years - the increase in electronic information and communication technologies and in particular networked information.

These network advances have transformed modes of communication and will result in significant changes to traditional library structures to accommodate organized

information and access to it. From your desktop it is now possible to "link easily and cost effectively into services, systems and information which were previously either not accessible or not even known"¹. The characteristics of the environment in which librarians are now working include: greater access to a range of information; increased speed in acquiring information; greater complexity in locating, analysing and linking information; constantly changing technology; lack of standardization of both hardware and software; continuous learning for users and library staff and substantial financial investment for technology².

Traditional Roles and Skills

The information that users require may be accessed differently but the skills information professionals need to manage this information can be adapted from established practices. There is no denying that this is a new global library environment and it is one in which librarians are still finding their way. However, the foundations of the profession and the skills and roles associated with it will help to ensure librarians, survival. The core skills traditionally associated with information professionals, which include information handling skills, training and facilitating skills, evaluation skills and concern for the customer, are all still relevant. These skills cover cataloguing, classification, indexing, enquiry work and user education, all functions which if managed by librarians will help to make the Internet an easier place to navigate. Librarians in all sectors have built up roles and library services based on collections and users needs and according to Creth the "values that are the foundation of the library profession should remain the same into the next century...values of service, quality,

universal access, and cooperation".³ It is the way in which these values are translated into operations and activities that will undergo substantial change.

Lancaster correctly states that in order to justify its existence in the electronic world, "the library must continue to perform one of the most important functions it now performs in the print-on-paper world: to organize the universe of resources in such a way that those most likely to be of value to the user community are made most accessible to this community, physically and intellectually."⁴ The vast amount of information available in a networked environment suggests that there is more than ever before a role for trained intermediaries with search skills, abilities to analyse and evaluate resources and match needs with sources. The traditional library skills mentioned above should be reassessed and their value to information services in the electronic environment applied. For example, the skills of cataloguing and classification can be used to improve the end user's, experience of networked information retrieval. The creation of meaningful metadata files based on cataloguing principles can help users find needles in the Internet haystack. The creation of catalogues including electronic resources can ensure access, authenticity, reliability and validity of networked resources.

The increasing amount of information available to users and the ways in which it can be accessed has in theory made it easier for users to get the information they require. However, in practice there is now a danger that they can be overwhelmed by the amount of information they receive making it difficult to locate the exact information they seek as well as overseeing issues of accuracy and authenticity. The role of librarian as both user-educator and intermediary is prevalent in this environment.

The foundations of librarianship, which include skills such as cataloguing and user education are, as

explained above, as relevant in an electronic age as they are in a print based one and will continue to provide a solid base of skills.

New Roles and Skills

In addition to the professional skills mentioned, the librarian of the future must be equipped with a wide range of personal and transferable skills in order to manage the changing environment in which he or she works. The importance of transferable skills over information technology skills should be highlighted here. Management and interpersonal skills will make librarians more effective managers of networked resources and services. As Hastings says "it is more important that digital librarians possess particular personal qualities (which are innate) rather than specific technical expertise (which can be learned)."⁵

This is not to say that the way to avoid the electronic age is for library professionals to stick their heads in the sand. The information professional must change and adapt to the new electronic information environment, he or she must learn about new technologies and be aware of the strengths and weaknesses of them. Librarians should not feel threatened by computers and technical developments but should move forward with the new technology and take a pivotal role within organizations.⁶

Information professionals within libraries are playing an increasing role in dealing with information in electronic formats by creating Web pages to promote their services to external customers and choosing automated library management systems. Skills in information organization are more necessary in this age of information explosion. Library and information professionals have a key role to play in this era. For example, librarians are well equipped to take Intranet projects through the various stages of design and maintenance as they understand their users, and their organizations, information needs

and have the range of skills to manage knowledge effectively.

The role of the librarian in this context is to help users find the information they require then provide them with the tools to assess and use the resources for their individual needs. Creth suggests that librarians achieve this by "actively seek(ing) out users in a variety of settings" and by making "full use of information and multimedia technology" by offering instruction in a variety of formats (including Web based instruction and online tutorials).⁷

Working in an Internet Environment

I am project manager for Biz/ed⁸ which is based at the Institute for Learning and Research Technology⁹, University of Bristol¹⁰. Biz/ed is an Internet based educational resource for business and economics academic staff, librarians, researchers and students. The management of the Web site itself is a good example of transferring traditional library skills to the Internet environment. Biz/ed itself contains over 4000 static Web pages which have to be organized in a way which will make it easy for users to find the information they require.

One of my main responsibilities as project manager for Biz/ed is to oversee resource discovery in the areas of business, management and economics for the Social Science, Business and Law Hub (SOSIG)¹¹. SOSIG is one of the 'faculty' based hubs which make up the RDN (Resource Discovery Network)¹². The RDN is the UK's 'academic library of Internet resources', supporting academics by offering access to thousands of networked resources.

Cataloguing the Internet

The Internet resources selected by the three information professionals who currently contribute to Biz/ed are entered into an Internet catalogue which is available on Biz/ed

or by cross searching SOSIG. The catalogue is a collection of high quality Internet resources located on servers around the world which holds over 1600 records. The catalogue can be searched or browsed and has the added value of resource descriptions which allow users to decide whether the resource is worth accessing. The Biz/ed Internet Catalogue is the Internet version of an academic library. The gateway points to Internet resources but applies many of the principles and practices of traditional librarianship to the collection. Every resource has been selected, classified and catalogued by an information professional. Biz/ed has a collection management policy, quality selection criteria, a classification system, and catalogue records and rules. These methods are widely recognized as being essential for the organization of printed information, and they translate very effectively to the electronic environment.

Gateways such as Biz/ed can be seen as the electronic equivalent of academic libraries. The librarians submitting resources into this catalogue are serving a similar function to those building traditional print collections based on journals and books.

User Education on the Internet

As the Web is increasingly becoming the first place that students will look for materials the role of information professional as intermediary will also grow in importance. As librarians working with this medium it is up to us to introduce the strengths and weaknesses of the Internet as we would any other library resource during our user education programmes. Just as a traditional academic library offers a programme of 'user education' to students and lecturers to maximize the benefit they receive from the library, UK librarians working in the Internet environment in conjunction with the RDN are developing networked user education to help people to get more from this

very rich information service. It is our experience that many users do not realize how rich a source the Internet can be and that it can be used to find many research and teaching materials. Traditional library user education in a university, college or school offers users:

- library tours - to become familiar with the layout of sections of the library
- library induction sessions - to learn about the services available and to learn how to use them
- subject guides - to identify the key information resources for a particular discipline
- support from subject librarians - to get specialist help
- information skills development - to learn transferable skills in information handling.

By applying a traditional library role such as user education and the knowledge of the best resources available for their subjects in the Internet environment an Internet librarian is well placed to provide a comprehensive Internet information seeking skills induction.

I am currently producing 'Internet Business Manager' for the RDN Virtual Training Suite¹³. The RDN has funding to create ten Web-based, interactive tutorials designed to help students and lecturers develop their 'Internet information skills' and to offer a subject-based introduction to discovering, choosing and using high quality Internet resources and materials. The RDN Training Suite will cover the key information skills for the new Internet environment. They will introduce basic ideas, techniques and examples of how the Internet can be used in education within specific subject disciplines. The tutorials will be free to access via the World Wide Web, and will each offer a self-paced lesson lasting around 15-30 minutes. It is also envisaged that these tutorials will help academic librarians who need tools to support their user education programmes

The tutorials will be based on the Internet Detective¹⁴ model. Internet

Detective is an interactive, online tutorial that provides an introduction to the issues of information quality on the Internet and teaches the skills required to evaluate critically the quality of an Internet resource. It offers a variety of learning methods, including tutorials, exercises, worked examples and quizzes.

Working on this project I am able to bring my subject expertise, library skills and Internet knowledge together to create a user education programme for Internet users interested in the areas of business and management in effect becoming a subject librarian of the Internet.

This paper has discussed the relevance of traditional library skills in the new era of networked information. It has shown that librarians in all sectors have an important role to play in shaping the Internet through resource discovery and by familiarizing themselves with Internet cataloguing standards they can help to ensure consistent records are built. They also have an essential role in teaching their users about critical information seeking on the Internet and assessing the materials they find for quality. If librarians successfully transfer the foundations of the profession into this new medium they will continue to be seen as vital information intermediaries.

References

- ¹ Pantry, Sheila. (1997) "Whither the information professional? Challenges and opportunities. The cultivation of information professionals for the new millennium." *Aslib Proceedings*. Vol. 49, No. 6, June 1997, pp. 170 - 172.
- ² Creth, Sheila D. (1996) "The electronic library: slouching toward the future or creating a new information environment." Follett Lecture Series. Available from: <http://www.ukoln.ac.uk/services/papers/follett/creth/paper.html>.
- ³ Ibid.
- ⁴ Lancaster, F. Wilfrid. "Artificial intelligence and expert system technologies: prospects." In: *Libraries for the new millennium: implications for managers*. London: Library Association Publishing, 1997, pp. 19 - 37.

⁵ Hastings, Kirk and Tennant, Roy. (1996) "How to build a digital librarian." Follett Lecture Series. November 1996. Available from: <http://mirrored.ukoln.ac.uk/lis/november96/uch/11hastings.html>.

⁶ Medhurst, Jamie. "Do or die: the librarian in the 21 century." *Manag-*

ing Information. Vol. 2, No. 9, September 1995, pp.30 - 31.

⁷ Creth, op. cit.

⁸ Biz/ed: <http://www.bized.ac.uk>.

⁹ Institute for Learning and Research Technology: <http://www.ilt.bris.ac.uk>.

¹⁰ University of Bristol: <http://www.bris.ac.uk>.

¹¹ Social Science, Business and Law Hub (SOSIG): <http://www.sosig.ac.uk>.

¹² Resource Discovery Network (RDN): <http://www.rdn.ac.uk>.

¹³ RDN Virtual Training Suite: <http://www.rdn.ac.uk>.

¹⁴ Internet Detective: <http://www.sosig.ac.uk/desire/internet-detective.html>.

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The Future of Copyright Management: European Perspectives

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Introduction

First, a few words about the landscape of intellectual property rights in Europe. It is not monolithic and this point is significant.



Then, I will speak about the European Community legal policy that relates directly to our activity. With regard to this, I remind you that, when directives are adopted at the Community level, the national laws of the various Member States of the European Union must then be adapted to conform to them. Finally, after this long but essential introduction, I will cover, in the last part, the main evolutions one can expect in the area of copyright and 'droit d'auteur' management.

In Europe, Different Principles Exist

I have just used the words 'droit d'auteur', which are words that cannot be translated by that of 'copyright'. The field of intellectual property is interpreted in different ways in Europe. There are various historical reasons for this. For example:

- In the United Kingdom, it is the dissemination of knowledge that is invoked in the introduction to

Queen Anne's Law, which dates from the early 18th century. Priority is given to social worth, and the corporate and impersonal character of the scientific process is what justifies protecting the investment required for its dissemination.

- In France, the land of 'droit d'auteur', the starting point is creative writing, literature, which is no longer that of utilitarian designs. At the end of the 18th century, the idea prevailed that a work is the product of an individual, and the focus was on the rights of the author-creator.

These differences have consequences and I will now sum them up in a very simplified way.

In Copyright Countries:

- The author releases almost all his rights to his work to the rights holder, who is usually an investor, responsible for the distribution of the work, and often a corporate body.
- In accordance with the principles of common law, touching the rights of the producer can be justified if it is for the common good. This is the theory of 'fair dealing', presented very briefly, as it is regulated by very precise authorizations.

The theory of copyright rests on the idea of a contract between the author and society, on an economic logic based on the common usefulness of the work. The scope of creation is the profit to the author and the benefit experienced by the public, but not the desire to express oneself. The work is an economic object responding to the logic of distribution.

In 'Droit d'auteur' Countries:

It is the author, a physical person, that retains the initial rights. He can never transfer the rights attached to the personality (moral rights) but

he can transfer the economic rights. The logic applied here is one where the person is protected above all. The work of the mind can no longer be placed at the free use of third parties. The driving spirit is no longer the necessity to support an economic activity, but to support creativity. Some exceptions to these exclusive rights of authors do exist nevertheless. Not as significant as those allowed by 'fair dealing', they respond mainly to private use and some secondary uses such as the right to citation, to realize a summary or a parody.

This very schematic introduction on the legal systems seems necessary since the European Union is trying to harmonize our legislation in an effort to de-fragment the European market and because this attempt raises some tricky issues. If the United Kingdom is the prototype country for copyright, and France that for 'droit d'auteur', the landscape is not all that simple. Overall, Southern European countries are mostly countries with 'droit d'auteur' and Northern European ones are copyright countries.

European Union Policy

A must in a European context, European Community law plays an important role in our legislation, and intellectual property cannot be an exception. As a reminder, here are a few of the directives that have been adopted recently and that can be consulted on the web site of the European Commission:

Directives adopted:

- 1996 databases
- 1993 harmonization of the term of copyright protection
- 1993 satellite broadcasting and cable retransmission
- 1992 rental and lending rights
- 1991 computer programs.

and some proposals:

- copyright and related rights in the information society ('digital environment')

- resale right for the benefit of the author of an original work of art.

There are too many such directives, applying too narrowly to specific circumstances, sectors or countries, and because of that, they are disparate and poorly coordinated. They may also result in strange new legal figures, as they would often be the result of compromise. However, they do meet specific issues at stake, such as the need to ensure the free circulation of goods through the harmonization of the intellectual property rules in Europe, including, in the long term, countries of Eastern and Central Europe. (Let me remind you that these texts are issued by the Internal Market Direction of the European Commission.) There is also a need to safeguard authors' and performers' rights in a digital environment, in order to meet the requirements of international conventions and to be able to ratify the 1996 WIPO treaties.

I will not make a detailed list of the contents of these directives, but instead will attempt to underline the thorniest points in the debates they have caused and still cause. Two examples:

The Directives for Software and Databases

In France, in the name of protecting heavy investments, unfair competition could have been blamed. Instead, legislators have favoured the development of exclusive rights, similar to those of an economic monopoly, such as 'neighbouring rights' and copyright. For software, curiously enough, the choice was based on the work instead of the patent. 'Droit d'auteur' countries must therefore protect an investment in the same legal framework and with the same concepts as for personal creations. In French law, there has thus appeared an 'hybrid' item, because:

- the criteria for protection come from the 'droit d'auteur' theory, the originality, that is the person's imprint but in the framework of a technical development

- the rules of ownership are borrowed from copyright since it is the employer that holds it
- the right of reproduction is 'sui generis', I mean new, to account for the utilitarian character of the tool and only one backup copy is allowed
- and only a small residual of an artificial moral right remains.

For databases, a new right was set up in order to protect the investments, but there too is a reference to copyright in order to protect the selection and organization of the database, which meet utilitarian criteria but do not express a personality. As to real works, they were already protected by the 'droit d'auteur'. Finally, here too, a complex system of three levels had to be built.

The Proposal for a Directive on the Harmonization of Copyright

This text is a good illustration of the views of copyright and 'droit d'auteur' defenders. Thus, there is much discussion concerning the nature of fair compensation planned for some exceptions which, if too burdensome, could harm the rights of users. On the other hand, one should also point out that a special clause concerning the right to adapt would have minimized the possibility of damage to the integrity of the work, so easy in the digital environment. Of course, this is an issue of moral right.

In the end, the text, the final version of which is not yet known, is more of an adaptation of the law rather than a genuine harmonization, since the range of exceptions to monopoly is longer and longer to progressively include all traditional exceptions from all the Member States of the European Union. And Member States will be able to choose which exceptions suit them.

One can also add that the loose interpretation of definitions that can be made by the various courts in Member States, definitions at times very vague, will possibly emphasize the differences even

more. On the other hand, the European Court of Justice may contribute to unifying, but in the very long term, the practice of European jurisprudence.

Copyright Management in a Digital Environment

Several modifications can be foreseen in the near future:

- the loss of the exception for a private copy
- a strict control over use
- the extension of pay-per-view systems
- the domination of contracts
- the circumvention of collective management societies
- the development of collective work and weakening of moral rights.

The Loss of the Exception for Private Copy

In an analogue environment, copying of works for strictly personal use is one of the main exceptions in French law. Digitization, that allows for the multiplication of exact copies has been interpreted as an exploitation of works. For this reason, the exception for private copy, already abolished for software and electronic databases, may also end for all digital media. Finally, in the latest known version of the copyright directive, they admit, in return for a fair compensation which takes account of the application of technological measures, an exception for private copy.

I put the stress on the private copy because the exception for teaching and research does not exist in France. Yet, and it is worth underlining, some actions are in progress now in my country, in university circles, in order to obtain recognition of this exception.

A Strict Control Over Use

The distribution of works will be monitored by technical means that allow the identification of works

through a system of digital tattoo and the control of their use. But these systems could slow the access of information and increase the cost of distribution. Mainly, they substitute for legal protection. In fact, they lessen the margins for negotiation since there is no way to freely determine a fair use. In addition, they could raise questions as to respect for privacy.

The Extension of Pay-Per-View Systems

The use of these techniques involves pay-per-view systems, though all information and use are not of a commercial nature. Actually, even the mere bringing up on the screen, without downloading, can be subject to payment. This is an excessive protection as screening could be compared to leafing through a book or a journal and this has never been recognized during the negotiations related to the copyright directive. It has even been considered that technical copies be submitted to an authorization request and the lack of economical value be proven. They usually are, in fact, and only those that are totally transient, such as mirror sites, are not included.

On the other hand, I repeat a point that is also one that France particularly supports, that the privacy of citizens must be protected and that these systems provide a way of monitoring the use of works that could threaten the anonymity of everyone, be it an individual or an organization. Besides, the system of paying by the unit downgrades the mission of libraries and constitutes an obstacle for the availability of information to all publics, whatever may be their financial means.

The Domination of Contracts

Whatever the final text of the copyright directive will be, contracts will be the usual tool in a digital environment.

If the principle of fair use or fair dealing is often mentioned in the world of libraries and institutions of learning, it is, on the one hand, a foreign concept to the French tradi-

tion, while on the other hand, in the United States, one is seeing a progressive transformation of common law - copyright which incorporates fair use - to a private right by the adding on of signed contracts with libraries.

We are therefore clearly moving towards contractual solutions. But the contract belongs to private law and leaves a great deal of liberty in the negotiation. The rights holder is left free to dictate a price and to define the conditions of use according to the market conditions. In this case, to carry adequate weight during the negotiations, it is important to form consortia, buyers' groups, which represent the model one is seeking.

Licence models can be used, but they do not solve all the problems and usually require legal assistance. In addition, once the licence is established, one must be able to ensure its maintenance within one's institution.

I might add that there is no plan to mention in the copyright directive that contractual law does not override intellectual property law, something that would ensure that the legal exceptions would have to be taken into consideration in contracts or licensing agreements.

In the case of contracts for electronic media, there are new precautions to be taken before signing, in addition to an examination of costs. Besides, the choices will be different depending upon the type of structure, and the negotiations can be individual or within a group (consortium). One must not forget that digitized works are sold and purchased, but that only their access and use are covered by a licence. The licence allows one to give the right to use a work without giving up the ownership.

Many pitfalls should be avoided during negotiations. A brochure published by EBLIDA (European Bureau of Library, Information and Documentation Associations) defines what these pitfalls are. One might also perhaps add that teach-

ing how to read contracts and the different types of negotiations should be integrated in the basic and lifelong training of information professionals.

The Circumvention of Collective Management Societies

These societies are in charge of collecting reproduction and communication rights. They are many since each category of work has its own and technological evolution leads to their increase. But it is unlikely that these societies, anyway in their current form, can facilitate creativity on the Internet, mainly because they do not always have the rights they pretend to manage and because it is becoming a tough job to correctly define the type of agency that should be collecting the rights. The crumbling and, indeed, the conflict between rights, makes any kind of management complex. In addition, economic barriers will possibly arise to add to legal barriers. A recent study on the various ways the European collective management societies operate has just been issued by the European Commission and will no doubt lead to a stand on such issues.

The Development of Collective Work and Weakening of Moral Rights

The French 'droit d'auteur' makes difficult to acquire rights through the employer for the works of its employees as well as commissioned works. Only the category of collective work could authorize the fixed payment of authors and limit their moral rights, reduced to the recognition of the paternity.

But even if the collective work is recognized, such as with newspapers, there have been lawsuits filed by journalists to obtain new payment for all digital dissemination of works on paper, considering it a new commercialization. This is the origin of the attempt to consider multimedia works, whose legal status is not yet clearly defined, as collective works, so that they could be commercialized in a way similar to copyright. This would be easier for

employers and commissioners to manage.

The numerous French collective management agencies have a lot at stake in this debate, as they are the ones who must collect the royalties of authors and co-authors, physical entities. If multimedia works are considered as collective works, they risk losing huge amounts of money if they do not change their status and the way they work.

Conclusion

Regarding the major principles of intellectual property management, each of the two systems - copyright and 'droit d'auteur' - presents some advantages. Copyright gives more weight to users, but the 'droit d'auteur', thanks to a stronger moral right, allows the author to control the use made of his work, through the right of paternity and the right of the integrity of his work. This would allow him to prevent any reuse that he sees as going against his ideas or his interests.

In fact, all works should not be dealt in the same way. Some are closer to personal creation; others meet an industrial logic. Therefore, when the industrial stamp is stronger, French law draws on neighbouring rights and economic rights and it becomes more like a collective work. In copyright countries, some categories of works are accompanied by a moral right when they have a personal stamp.

It seems difficult today to give a precise definition of the systems that will soon be offered to us to manage our documents in digital formats. Several systems could co-exist; pay-per-view systems by the way of technical systems, the payment of rights to collective management societies, taxes on blank media, contracts, ... Besides, a balance must be obtained if the objectives of the information society are to be met, through the desire and need to disseminate for purposes of fame, training, public information and cultural dissemination.

With regard to the proposed directive on some aspects of copyright, exceptions should be allowed in the public interest for copies made for educational reasons, training and research, including personal research. Governments should allow these exceptions to balance the interest of rights holders. There is a real danger in allowing the users to negotiate exceptions with the rights holders who, obviously, want to have complete control over access to their works.

We can see that the digital environment raises economic and ethical issues linked to the flow of information. There is a serious risk of decreasing global access to information, to create a social divide, problems of privacy protection. Only political will can promote appropriate solutions for equal access to culture while respecting legal principles.

Sources

- Gaudrat, Philippe. "La législation face à la technologie: l'exigence de législation sur le droit d'auteur devient-elle moindre?" Colloque: *Gestion et utilisation légitime de la propriété intellectuelle*. Strasbourg: 9-11 juillet 2000, 17 pages.
- Buffet, Xavier, Delmas d'Aubane, Elsa de Noblet. "L'adaptation communautaire du droit d'auteur et des droits voisins à l'environnement numérique." *Gazette du Palais*, 23-34 juin 2000, 26-33.
- Le droit d'auteur et les bibliothèques*. Direction Yves Alix, Paris, Editions du cercle de la Librairie, 2000.
- von Hielmcrone, Harald. "The efforts of the European Union to harmonise copyright and the impact on freedom of information." *Libri*, 2000, n°1, 32-39.
- Lemu, Michèle. "Les professionnels de l'information et la proposition de directive communautaire sur le droit d'auteur." *Documentaliste-Sciences de l'information*, 1999, n°2, 99-104.
- "ECUP, licence de ressources électroniques: Comment éviter les pièges juridiques." *Documentaliste-Sciences de l'information*, 1999, n°2, 105-112.
- Etienne, Anne-Sophie. "Actualités du droit d'auteur dans la société de l'information." *Bulletin des Bibliothèques de France*, 1998, n°3, 8-11.

"Propriété intellectuelle et bibliothèques françaises. Leçons américaines et opportunités européennes." *Bulletin des Bibliothèques de France*, T.43, n°3, 1998, 12-16.

La protection de logiciels, André Bertrand, Paris, PUF, 1994 (Que sais-je? 2853).

SITES: Commission européenne. DG Marché intérieur; Rubrique 'Propriété

intellectuelle': europa.eu.int/comm/internal_market/fr/intprop/intprop/docs/index.htm; OMPI: www.wipo.org.

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Literacy, Libraries and IFLA: Recent Developments and a Look at the Future

John Y. Cole

has chaired the IFLA Section on Reading since 1997. A librarian and historian, he has served the Library of Congress since 1966. In 1976, he chaired the Library of Congress Task Force on Goals, Organization, and Planning. In 1977 he became the founding director of the Center for the Book in the Library of Congress, which was established to use the prestige and resources of the Library of Congress to stimulate public interest in books, reading, and libraries, nationally and internationally. Today the Center for the Book has affiliated centers in 41 U.S. states and the District of Columbia and a reading promotion partnership network consisting of 90 national and international organizations and institutions. In 2000 he was the recipient of the American Library Association's Lippincott Award for distinguished service to the profession of librarianship. He has a Ph.D. in American Civilization from the George Washington University and a Master's degree in Librarianship from the University of Washington in Seattle. He is the author of three books and dozens of articles about the history and role of the Library of Congress and has edited 14 books published by the Center for the Book. From 1990-1992, he served concurrently as Director of the Center for the Book and Acting Associate Librarian for Cultural Affairs. From 1993-1995, he had the additional duty of Acting Director of Publishing. From 1997-2000, he was co-chair of the steering committee for the celebration of the Library of Congress's bicentennial. He may be contacted at the Center for the Book, Library of Congress, Washington, D.C. 20540-4902, USA (e-mail: jcole@loc.gov).

(Paper presented at the 66th IFLA Council and General Conference, Jerusalem, Israel, 13-18 August 2000, in a meeting of the Section on Reading.)

Introduction

IFLA has been interested in the issue of literacy for about a decade. However as an organization, we haven't quite known what



to do with the issue. I think that one reason for this uncertainty is a nagging belief on the part of many librarians that literacy is not, at heart, an important issue for libraries. I think the opposite: that it is not only an important issue but, when coupled with reading promotion, in many ways it is at the heart of librarianship. In retrospect it seems to me that the other problem within IFLA-and in some ways the reverse side of the coin-has been the earnest desire of some literacy advocates for IFLA to jump right in and perhaps try to do too much too soon. As an organization, IFLA has backed away from this approach.

At the 1999 IFLA conference in Bangkok, IFLA's three-year-old Literacy Working Group submitted its final report and recommendations to the IFLA Professional Board. In her report covering the years 1997-1999, Professional Board chair Sissel Nilsen announced that in the future the Section on Reading, working with other groups, would "have responsibility for literacy questions-a theme that might well

be one of IFLA's core activities in the future." The Working Group was disbanded and the Professional Board turned the report and its recommendations over to the Section on Reading for incorporation, as we saw fit, into our Action Plan for 2000-2001.

This paper addresses the Section on Reading's plans for keeping the literacy issue alive within IFLA and for moving ahead with specific (if limited) programs and projects. First, however, I want to provide you with some historical background and context for the Section's approach to the topic.

IFLA and Literacy

Several forces converged between 1989 and 1995 to put literacy on IFLA's agenda. In 1989, IFLA sponsored a pre-conference in Paris on the topic of public libraries and the illiteracy problem. The next year the IFLA Public Library Section participated in a pre-conference in Sweden on literacy and the role of the public library.

To focus world attention on the problem of illiteracy, the United Nations declared 1990 as International Literacy Year, and the United Nations Educational Scientific and Cultural Organization (UNESCO) was designated as the lead agency. The two principal messages International Literacy Year presented to the public were: 1) education and literacy were essential to the well-being of society; and 2) literacy and education were the responsibility of all sectors of society, not only schools and professional education. In 1990 the United Nations, UNESCO, the World Bank, and other international organizations sponsored the Education for All conference in Bangkok. The background papers on education and literacy did not mention libraries or the potential role that they might

play in the campaign to eradicate illiteracy. IFLA and the American Library Association decided to send Lucille C. Thomas, an American school library leader, to the conference to represent libraries and their interests. Her report on how libraries could be "partners in meeting basic education needs" was submitted to IFLA and distributed at the 1991 conference in Moscow.

Literacy was the topic of an IFLA preconference seminar held in India in 1992 prior to the 58th general conference in New Delhi. Lucille Thomas presented a paper that was published in the *IFLA Journal* in 1993 under the title "World Literacy and the Role of Libraries." She provided an overview of developments around the world since 1990, focusing on the question "What Can Libraries and Librarians Do in the Literacy Effort?" In general, her answers-all valid today-focused on developing and interpreting collections, especially for new adult readers; cooperating and collaborating with literacy and literacy-related organizations; helping educate the public about literacy problems; creating and supporting family literacy programs for preschool children, and encouraging school libraries to reinforce basic literacy instruction by bringing children and books together.

Also in 1993 UNESCO published *Guidelines for Public Libraries Promoting Literacy*, which was prepared by Barbro Thomas, a Swedish librarian, under contract for IFLA. She drew on the proceedings of the 1989 and 1990 preconference seminars, particularly the one in Sweden, which she had helped plan. Many of her recommendations coincided with those made by Lucille Thomas, especially the need to work in concert with other organizations at the national, regional, and local levels. In her report Barbro Thomas also advocated greater cooperation at the international level.

At the IFLA conference in Havana in 1994, Sissel Nilsen and Francis Kaiser proposed the creation of a new IFLA core program for literacy

and reading promotion. Their plan was based on a previous proposal made by the Standing Committee on Libraries Serving Disadvantaged Persons. The new core program's aim would be to "promote the advancement of literacy in the world and promote reading skills through libraries, including support for literacy among young people and people with disabilities, thus ensuring everyone's right to know and helping to secure democracy throughout the world." The proposal was broadened to include the promotion and implementation of the UNESCO Public Library Manifesto and endorsed by the Professional Board. However, at a joint meeting of the IFLA Executive Board and Professional Board in 1995, the recommendation for the new core program was rejected on financial and organizational grounds. Instead it was decided to create a Literacy Working Group that would study the feasibility of a major IFLA initiative in support of literacy programs in libraries.

Also in 1995, the Professional Board agreed to establish a new Section on Reading, combining the Round Table on Research in Reading and the Round Table on Children's Literature Documentation Centres. Seven goals for the new Section are outlined in the final 1995 issue of the *IFLA Journal*. Although these goals emphasize reading promotion, research about reading, and work with children, three of these goals-interestingly enough-also concern literacy. Maybe someone had an eye on the future!

The Literacy Working Group held its organizational meeting at the IFLA conference in Beijing in 1996. It was charged by the Professional Board (PB Doc 95-111) to propose a policy and specific course of action by IFLA, over the long run, to support the promotion of literacy and the development of reading skills through libraries, including support for literacy among young people and people with disabilities and to support the 'right to know.' Several members of the Working Group met at The Hague in March 1997,

and the group was reorganized. Irene Sever volunteered to be chair and Martin Kesselman volunteered to be secretary. It was agreed to undertake an international survey "to determine the current state of affairs of libraries and literacy and to have some baseline data on where we are today." The questionnaire was reviewed at the conference in Copenhagen in 1997, and in March 1998 the Professional Board approved additional funding to support the distribution and subsequent analysis of the questionnaire. At the 1998 Amsterdam conference the goal of the survey was changed: it was to become "a worldwide snapshot of the role libraries and library associations play with literacy programs rather than a country by country analysis." A progress report/financial report was made to the Professional Board in October 1998, and a market research consultant was contracted to help with the analysis of the survey results. This is the report that was presented to the Professional Board last summer in Bangkok. It was prepared by Working Group secretary Martin Kesselman, and consultant Dennis Blyth on behalf of the Working Group.

Based on its discussions, its review of IFLA activities and documents and the survey results, the Working Group made six major recommendations in its final report:

1. IFLA must advocate the major role libraries play in the promotion of literacy
2. IFLA needs to continue to develop guidelines for libraries in promoting literacy activities
3. IFLA should serve as a clearinghouse for literacy programs in libraries
4. IFLA should provide leadership in the development and provision of continuing education and training manuals for libraries and, where needed, translations of these into various languages
5. IFLA should serve as a major communications channel for literacy programs in libraries; and
6. IFLA should have a major role in focusing research on libraries and literacy.

In order for IFLA to begin carrying out these recommendations, the Working Group recommended "that IFLA request funding by UNESCO for a full-time Literacy Officer for Libraries for a trial period of two to three years." The officer would work closely with several IFLA Standing Committees and other organizations, developing grants and project proposals. After a period of two years, "this position should be evaluated and at that time the need for a permanent Literacy Officer, the establishment of a new core program or the designation of literacy activities within another core program should be re-examined."

Literacy and Libraries

I now would like to step back and look at specific ways that libraries might become involved in literacy. First, it is useful to expand on the distinction between illiteracy, which is the inability to read, and what Librarian of Congress Daniel J. Boorstin in 1980 labeled as 'aliteracy.' An 'aliterate' is a person who knows how to read but for various reasons, does not. Closely connected is the person who knows how to read but whose abilities are limited. Such persons, at least in the United States, often are labeled 'functional illiterates.' The solution to illiteracy, an education problem, is teaching someone how to read. The remedy for 'aliteracy' is motivational: reacquainting, or in some cases 'reconvincing' people about the power and satisfactions of reading. For 'functional illiterates' the answer often involves both education and motivation.

UNESCO defines a literate person as someone who can with understanding both read and write a short simple sentence about his or her everyday life. However, as the IFLA Working Group's report points out, it is difficult to come up with a single definition for functional literacy, which can differ among countries, cultures, and time frames. My major point is that libraries can help in each instance and no matter which definition one

uses. Libraries are, above all, community education resources and places. Through their collections and services they can stimulate literacy, help instruct, and motivate interest in books, reading, and life-time learning.

The Working Group report outlines three areas in which libraries can assist literacy activities: providing collections in support of literacy, actively participating in instructional programs for learners, and providing support services for literacy efforts by the library and other organizations. Regarding IFLA's potential role, the report is a little ambiguous. It acknowledges that the traditional route would be for IFLA to work through library associations, performing, I assume, mostly an educational function. Yet the report also notes the effectiveness of many grassroots literacy programs and, I think, implies that direct connections between IFLA and such programs should be considered.

It is this latter route, working directly with literacy organizations, that I think we should emphasize. This approach takes into account and might even bring together two recent trends. The first is the broadening of the role of libraries into community information centers, whether that community be a school, rural district, town or city, college or university, government agency, or an institution with a specialized clientele. The second trend is the expansion of the definition of literacy to include not only functional literacy, but also family literacy, information literacy, and even computer literacy. Moreover, library and information services are being expanded to include literacy in its expanded forms. In every case, whether information is available in a book, newspaper, or on a screen, the ability to read is a basic survival skill. As the American Library Association's 1999 pamphlet *21st Century Literacy* points out, new technologies are increasing, not decreasing, the importance of the ability to read. The new literacy encompasses what libraries do best: enable everyone, without cost, to obtain,

interpret, and use information from print sources, computers, and other media.

Immediate Plans of the IFLA Section on Reading

I think it was logical for the Professional Board to turn the report of the Literacy Working Group over to the Section on Reading for review and incorporation, as best we can, into our program and action plan. The advantage is that for several years literacy has been specified as one of the Section on Reading's interests. Moreover there are close personal and organizational links between the Literacy Working Group and the Section on Reading. Valeria Stelmakh, the past Section chair and Irene Sever, a longtime member, both played important roles in the Literacy Working Group. A bibliography about literacy by Irene Sever has been one of the Section's long-standing projects.

The disadvantage, at least for those who wish that IFLA would move faster and in a bolder fashion, is that literacy is only one of the Section on Reading's several areas of interest. The others are reading promotion and development, promoting research, educating others about the broad field of reading and reading research, and a special concern about the role of reading in the lives of children and young people. These topics are not unrelated to literacy, but each has its own set of interests and, if you will, its own constituency.

Nevertheless the Section on Reading hopes to increase IFLA's interest in literacy and its importance. By necessity our efforts will be limited and focused on specific projects. We hope and trust, however, that the momentum will build and we think there is a good chance of this happening. But first we need the help of others in IFLA who share our belief-and the belief of the IFLA Literacy Working Group-that libraries have a major role to play in the worldwide reduction of illiteracy and in promoting literacy generally.

The Section on Reading began including literacy as part of its IFLA programming in 1998. At the Amsterdam conference that year and again in Bangkok last year, the Section sponsored open sessions about reading promotion activities in the Netherlands and Southeast Asia, respectively, and both of these sessions included information about literacy as well as reading promotion projects. In Amsterdam we hosted a very successful all-day workshop on the topic "Literacy and Reading Services to Cultural and Linguistic Minorities." It featured six presentations that combined research findings and descriptions of successful projects, a panel discussion among experts who work with minority language groups, and poster presentations describing literacy and reading projects from around the world. A booklet containing the papers is still available.

The Section on Reading also has expanded its newsletter to include more news about both reading promotion and literacy projects. A new column, "Current Research in Literacy and Reading," contains selected abstracts and descriptions of current research in the fields of reading and literacy. This column as well as the entire newsletter and other Section news can be found on IFLANET, the official IFLA Web site.

In Jerusalem, in addition to this program, we are sponsoring a workshop on "Library-Based Programs to Promote Literacy." The goal is to bring together librarians and other experts from several countries and regions to explore library-based programs for promoting literacy. We are interested in programs for both children and adults, as well as

in the factors which make for a successful program, the sustainability of programs, the training of staff, providing materials for new literates, and of course obtaining funding for literacy programs. Our objective is to work towards a program or workshop at the Boston conference in 2001 on developing guidelines for libraries in promoting literacy activities. Such guidelines, as pointed out in the Literacy Working Group's report, must be cooperative efforts involving several IFLA groups.

This leads me to a final point. The Section on Reading cannot perform this task alone. Partners are needed within IFLA, particularly from various Standing Committees, Sections, Round Tables, and, when appropriate, Core Programs. A valuable appendix in the Working Group's report lists the various literacy and literacy-related activities of IFLA's various standing committees and round tables during the past decade. It includes the expert meetings, seminars, workshops, projects, and publications. IFLA, this record shows, already is deeply involved with literacy as a topic and issue. Our problem, as I mentioned earlier, is the lack of a focal point. The Section on Reading cannot by itself be that focal point, but we can help through specific programs and projects and through trying to raise IFLA's awareness of the importance of the issue. More time is needed, but so is more help. As Section chair, I welcome participation in the programs we have planned and ideas from other IFLA unit heads about how we can work together. I also point out that on the literacy issue, IFLA also needs outside partners, including UNESCO, the World Bank, and other organizations concerned with literacy and education.

I will close with a quotation from the Literacy Working Group's report that succinctly describes both the importance of the issue and IFLA's possible future direction: "Literacy is an issue that touches all parts of our lives and is of concern to all libraries worldwide. Reading and its promotion as well as information seeking skills are and will continue to be critical skills for lifelong learning. A major thrust for literacy programs by IFLA and by libraries, with assistance and leadership from IFLA, can be a major catalyst for global change and have a positive impact on many levels-(including) education, health, and social and economic vitality."

Bibliography

- IFLA, "Final Report: Working Group on Literacy," Typescript, 20 pages. 1999.
The text of the report can be found under the Section on Reading on IFLANET. The report was prepared by Martin Kesselman, secretary of the Working Group on Literacy, and Dennis Blyth, consultant, Motive Research, on behalf of the Working Group. It was submitted to the IFLA Professional Board in August 1999.
- American Library Association. *21st Century Literacy*. 8 pp., 1999.
- "Core Programme on Literacy," *IFLA Journal* 21 (1995), no. 3, p. 227.
- "Final Report of the Working Group on Literacy," *IFLA Journal*, 25 (1999). No. 5-6, p. 310.
- "New IFLA Section on Reading," *IFLA Journal* 21 (1995), no. 4, pp. 317-18.
- "Report of the Professional Board, 1997-1999," by the Chair, Sissel Nilsen, *IFLA Journal* 25 (1999), no. 5/6, p. 298.
- Thomas, Lucille. "World literacy and the role of libraries," *IFLA Journal* 19 (1993), no. 2, pp. 162-69.

Libraries and Literacy: a Preliminary Survey of the Literature

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has taught in the areas of youth library services, storytelling, youth literature, and has developed special institutes and courses in library services for people with disabilities including literacy programs and services.

During the summer of 2000, she received the American Library Association's prestigious Beta Phi Mu Award for "distinguished service to education for librarianship." In January 2001, she was the recipient of the "distinguished service" award from the Association for Library and Information Science.

She is currently a member of the Standing Committee of the Section on Reading of IFLA, and formerly served as the chair of the Section on Children's Libraries. An active member of both the American Library Association and the Association for Library and Information Science (ALISE), she most recently served as the president of ALISE.

Her most current publications include "School-Public Library Relationships: Essential Ingredients in Implementing Educational Reforms and Improving Student Learning." Commissioned Paper by the U.S. Department of Education, 1998 which is available in *School Library Media Research*, Vol. 3 (2000). (www.ala.org/aasl/SLMR) and "School and Public Library Relationships: Deja Vu or New Beginnings." *Journal of Youth Services in Libraries* (Spring 2001). Recent research has also included content analyses of poverty in books for both young children and young adults and studies of reading motivation.

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Background

A search of two major English language databases, *Library Literature* (United States) and *LISA* (*Library and Information Science*



Abstracts, United Kingdom) for the dates 1990-2000, was undertaken for the latest reports pertaining to literacy including: major surveys, evaluation studies, manuals on libraries and literacy, plus recent major national or regional literacy movements that involved libraries. The search could only be characterized as cursory, mainly English-language based, and selective for materials available from a local research library or from interlibrary loans. Though an attempt was made to secure materials on literacy and libraries in other countries, mainly documents from the International Federation of Library Associations and Institutions (IFLA) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) were located. Published reports from the US, the UK, and Canada dominated this literature. Several documents were found only on the World Wide Web through web home pages of literacy agencies or governmental organizations.

Though no attempt was made to define literacy for this search,

almost all the publications included some type of definition. Historically, in the United States, literacy has been defined in terms of years of schooling, which has constantly increased, from three or more years of schooling in 1930 to having completed eighth grade in 1960. By 1992, the definition used in the United States National Adult Literacy Survey included: "...using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential." An increasingly sophisticated and differentiated scale of literacy skills has been identified in several major studies. In these recent studies, adult literacy was broken down into three scales including: prose literacy, document literacy, and quantitative literacy; these scales have a 500 point basis which allows five major breakdowns of levels of literacy (*Adult Literacy*, 1993; *Literacy, Economy and Society*, 1995). Types of literacy have been expanded to include family literacy (or intergenerational literacy), and information literacy - often including computer literacy (much of which was not considered relevant to the current search). Literacy among specific groups of people has sometimes been the focus, such as that of the language minority community (Constantino, 1997, IFLA, 1999), the blind (Leach, 1992), the poor (Venturella, 1998), the labor force (Sum, 1999) and families (Thomas and Fisher, 1996). However, most of the studies and reports focus on the adult illiterate, which usually includes those 15 or 16 years of age and older. Some interesting trends in the 1990s have been the movement toward family literacy and special consideration of women in literacy programs in recognition of gender inequity in literacy rates. Another trend in literacy activities has been an increased focus on the learners' needs and preferences through the establishment of New Reader (learners) Advisory Groups,

the inclusion of learners on Literacy Advisory Groups and in local and regional forums on literacy activities, and providing a voice for the learners themselves, especially in community-based programs.

Several centers of literacy have been established, such as the National Literacy Secretariat of Canada and the Literacy Resource Centre in Ottawa, Canada, the National Literacy Institute (US), the International Literacy Institute at the University of Pennsylvania in the US, sponsored by UNESCO; and the National Center for Family Literacy in Louisville, Kentucky (US); and many websites of these centers and other literacy-related organizations were found. (See list of websites with Bibliography). Several manuals and workbooks which describe library literacy programs have been written. Though before 1990 there had not been many countrywide surveys of literacy in general, nor much attention to evaluation and research studies relating to literacy, that has begun to change, as will be noted later in this paper.

Several books discuss the role of libraries in literacy including Salter (1991) and Weibel (1992) in the United States and Scheel (1989) in Canada. There are several manuals for developing literacy programs in libraries such as Quezada's guide for small and medium-sized libraries (American Library Association, 1996) and the *Literacy Tool Kit: a resource for libraries* (Regina Public Library and the Saskatchewan Library Association, 1996). National efforts at establishing policy for literacy programs and libraries are found in Quigley, developed for the Canadian Library Association (1995) as a result of a summit on libraries and literacy.

Most of the journal articles centered on national or local literacy and reading initiatives, and campaigns such as the UK's National Year of Reading (NYR) (Attenborough, 1998, 1999) and their Reading Is Fundamental project, with a focus on access to books for school

children. Many efforts in the United States have focused on youth, reading, and book access including: Reading Is Fundamental, and a series of family literacy projects such as Born to Read, a program for babies and their parents; the Bell-Atlantic/American Library Association Family Literacy projects starting in 1989, and California's Families for Literacy program begun in 1988 (Monsour, 1993). More on some of these projects will be found in a later section, and much more can be found in the items in the attached bibliography. Articles on literacy covered many parts of the world: most of the English-speaking countries, France, and several developing countries such as India, Malaysia, Peru, islands in the South Pacific, and several African countries and regions. Most of that information is not reviewed in this paper.

A Brief History of Literacy

According to Kaestle (1991), "very little evidence is available about the extent of literacy before 1850 except that provided by people's ability to sign such documents as marriage registers, army rolls, and wills." In Europe, the literacy rise between 1850-1900 was rapid, for both men and women due to national consolidation, state intervention, and wider male suffrage along with expanding capitalism and establishment of school systems. In the United States, literacy rates in colonial British America were quite high, and America's rise to nearly universal white literacy was earlier than Europe's. By 1850, the rudimentary literacy rates of white men and women, self-reported to the US Census, were nearly equal. In 1979, only 0.6 percent of all persons fourteen years of age and older reported that they were illiterate, but this equaled nearly one million people (Kaestle). As early as 1930 the term 'functional literacy' gained popularity, usually defined as the ability to read at the fourth or fifth grade level. As the definitions of literacy have changed, there have been few studies of liter-

acy on a national level until the 1992/93 Adult Literacy Survey in the United States.

Bramley (1991) commented that during the 1960s it became very apparent that, in both Britain and the US, there were adults in society with severe literacy problems. What followed were the literacy campaigns of the 1970s and the 1980s. The adult education movement and the term adult basic education (ABE) have tried to focus on the academic skills needed to function in society (reading, writing, spelling and handwriting, and basic numeracy). Later, the concepts of social and life skills (coping or survival skills) became part of ABE. Educational opportunities centered around these concepts. Bramley presents the role of public libraries in Britain and the United States in both the early literacy and the later adult basic education programmes. He believes that these literacy campaigns sparked the incentive for the emergence of public library services to ABE students and also to the educationally disadvantaged. Literacy needs and services through public libraries are presented not only for ABE programs but also for those with special educational needs including racial and ethnic groups (African Americans in both the U.S. and Britain, the Hispanic communities in the United States, Asian communities in Britain, and groups with physical disabilities).

In the 1970s the US Office of Education commissioned the Adult Performance Level study, to establish what was meant by functional literacy, including relating levels of academic competence to economic achievement. Three levels were established, with only one level being established as less than functionally literate. Until the 1960s it was assumed that the introduction of compulsory, full-time education had led to the elimination of illiteracy. Suddenly it was recognized that this was not true, first in the US, and then later in Britain. This led to several waves of literacy campaigns and advocacy. Also in 1973, the Russell Report in Britain concerned itself with adult education

and adult literacy. In May 1974, the British Association of Settlement and Social Action Centres (BAS) published a document, *A Right to Read: action for a literate Britain* after two million adults were identified with literacy problems. A series of TV programs was introduced by the BBC for adults with reading problems. An Adult Literacy Resource agency was established in 1975, to allocate funds to local bodies for literacy purposes. Later the Adult Literacy Unit was established with Education and Science. Britain has in the 1990s established a National Curriculum, trying to ensure all would have a "good basic education."

In the United States a similar pattern can be found but occurring a bit earlier. Evidence of a large number of illiterates was found due to the large number of non-English speaking immigrants in the 19th and 20th centuries; and later, during the two world wars, an alarming number of registrants in the armed forces were found to be lacking literacy skills. As part of the literacy movement in the US, voluntary organizations continue to make a substantial contribution to teaching literacy skills, especially Laubach Literacy International (LLI) and the Literacy Volunteers of America (LVA). Laubach, a one-on-one teaching method for adults, began in the 1930s in the Philippines (though established as a formal organization by Frank C. Laubach in Syracuse (NY) in 1968); while LVA began in Syracuse (NY) in 1962 through the Church Women United.

The role of federal and regional governments in each country is very important in literacy efforts. Early on in the United States, efforts were tied to employment issues such as with the Economic Opportunity Act in 1964. In 1966 the Adult Basic Education Act (ABE) was approved as part of the Elementary and Secondary Education Act, and the establishment of a National Advisory Committee on ABE. In 1969, the Right to Read Campaign was started, and in 1974, the National Reading Improvement

Program. The general population was startled and perhaps stimulated to action by the stark picture of illiteracy in the US presented by the well-known writer and educator, Jonathan Kozol, in 1985 by his book, *Illiterate America*. Consequently, Congress authorized the Department of Education in 1988 to address the need for information on the extent of adult literacy. Finally through many efforts, the National Adult Literacy Survey (NALS) was designed and conducted in 1992 (*Adult Literacy*, 1993).

The 1990s have seen a major response by the US government concerning the literacy problem. For example, at the 1989 National Governors' Association, one of the six national education goals listed was the following:

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Congress passed the National Literacy Act of 1991 "to enhance the literacy and basic skills of adults, to ensure that all adults in the US acquire the basic skills necessary to function effectively and achieve the greatest possible opportunity in their work and in their lives, and to strengthen and coordinate adult literacy programs." In 1993, a report from the US Office of Technology Assessment described the current patchwork of programs that provide adult literacy education, suggesting that even the governmental programs had led to greater fragmentation of efforts. This report analyzed the ways technology (computer software, interactive video, and multimedia) can expedite literacy training in an efficient way. Though the authors felt the technology had great potential, they found only about 15 percent of programs utilizing such technology. Some advantages of the use of technology included:

- reaching learners outside of the institutional setting both in

- recruiting and retaining learners through sustaining motivation
- using learning time efficiently through improved curriculum and individualizing instruction
- meeting staff development challenges
- enhancing assessment and evaluation
- streamlining administration and management
- augmenting funding and coordination.

Though libraries are listed in the report as one of nine providers of literacy, only one example of a specific library literacy program was noted. The report strongly recommends more funding to encourage public and private partnerships to bring technology to literacy training.

The book trade has been closely associated with campaigns for national literacy, including an intensive effort with the Coalition for Literacy, which was mainly an informational and marketing campaign to expedite literacy training. The Coalition was administered by the American Library Association (ALA). Private foundation monies have been and continue to be important. Workforce literacy needs have brought the business community into the various efforts and coalitions.

Major National and International Studies of Adult Literacy

A study of literacy was conducted in the United States in 1992, the National Adult Literacy Survey (NALS), sponsored by the National Center for Educational Statistics in the US Department of Education (*Adult Literacy in America*, 1993; also see Kirsch in Smith, 1998). This was a very major study in terms of methodology and population studied. Trained staff interviewed nearly 13,600 individuals aged 16 and older during the first eight months of 1992. All had been randomly selected to represent the adult population. Another 1000 adults were

surveyed in each of twelve states to look at state-level results comparable to the national data. Also, 1100 inmates from prisons were interviewed to ascertain information on the literacy of the prison population. Over 26,000 individuals were surveyed. This study developed the methodology later used in the international literacy survey; with the three scales (prose, document, quantitative) used to define levels of literacy.

The study made connections between literacy skills and social, educational and economic variables. For example, "where one is in the literacy distribution is strongly associated with the likelihood of living in or near poverty" (Kirsch). It was found that there was a relationship between literacy and employment status: individuals with more limited literacy skills are less likely to be employed, less likely to work full-time, less likely to be professionals, managers, and technicians but more likely to be "laborer, assembler, or involved in fishing and farming," or in "craft, or service jobs."

In general, a clearer view of why so many US adults demonstrated limited English literacy skills was presented including the following profile of those with lower literacy skills:

- 25 percent who performed at the lowest level were immigrants
- nearly two-thirds of those at the lowest level did not complete high school
- one third of those at the lowest level were over the age of 65
- 19 percent had some visual difficulty
- 12 percent had some type of health condition that kept them from participating fully in daily activities.

African-American and Hispanic adults were disproportionately represented in the lowest two levels of the NALS. Yet, perhaps the most interesting results included these:

- half of all American adults performed at the two lowest levels of literacy proficiency

- 21-23 percent (40 to 44 million of the 191 million adults) were at the lowest of five levels of literacy
- 25-28 percent (50 million people) were in the next higher level of literacy
- educational attainment was associated with literacy proficiency.

Many of the definitions and levels of literacy in this study were used as the basis for a series of international literacy surveys. Internationally, a series of studies of adult literacy in countries of the Organization for Economic Cooperation and Development (OECD) were conducted between 1994 and 1999. The first International Adult Literacy Survey (IALS) was published by the OECD and Statistics Canada (*Literacy, Economy and Society*, 1995). The survey included interviews and tests of representative samples of adults aged 16 to 65 in the following countries: Canada, Germany, the Netherlands, Poland, Sweden, Switzerland, and the United States. For the first time, the literacy and numeracy of adults in different countries can be profiled and compared. The survey provided pertinent information on the economic performance and strength of each country, and the information needed to improve literacy. The survey used large samples of adults (ranging from 1500 to 8000 per country) in Europe and North America during 1994 in a uniform test of their literacy skills using the same methodology and scales of the National US Adult Literacy Survey. The IALS also followed the procedures of the 1989 study by Statistics Canada, another national assessment of adult literacy, which was the first study to assess literacy in a valid and reliable way across language and culture (English and French).

Building on these two major studies of the US and Canada, the Educational Testing Service on behalf of the US Department of Education and Statistics Canada joined with the OECD, the UNESCO Institute for Education in Hamburg, and the Commission of the European Communities to encourage national gov-

ernments to participate in the study. The Canadian results were published also separately in *Reading the Future: a portrait of literacy in Canada* (1996). Warren Clark has issued a report comparing three of the countries: Canada, the United States, and Germany (Clark, web report).

The first IALS study included data from the seven countries listed above. A second study included data collected from the following countries: Australia, New Zealand, Great Britain, Ireland and Flemish Belgium and the report presents comparative data from all twelve countries (*Literacy Skills for the Knowledge Society*, 1997). A third study included an additional eight countries: Chile, the Czech Republic, Denmark, Finland, Hungary, Norway, Portugal, and Slovenia (*Literacy in the Information Age*, June 2000). There are now twenty countries in this international database with comparative data on literacy levels. According to a press release on the World Wide Web regarding the final report (newly released, not available to the writer), the following conclusions were noted:

- The higher a nation's literacy skills, the more likely its population will work in better quality jobs, earn more and have healthier habits and lifestyles.
- There is a measurable, net return to literacy skills.
- Literacy proficiency has a substantial impact on earnings when other aspects of human capital, specifically educational attainment and experience, are taken into account. The higher a nation's literacy skills, the higher its economic output measured in gross domestic product per capita. For example, Canada ranked among the top countries on both gross domestic product per capita and prose literacy.
- No nation did so well in literacy attainment that it could be said to have no literacy problems. (Statistics Canada website: <http://www.statcan.ca/Daily/English/000613b.htm>)

Additional information on countries can be found in the UNESCO work on illiteracy gleaned from national reports done for Education for All Year 2000 (EFA), which provides data on 167 country reports. The UNESCO Institute for Statistics prepared the report based on these country and regional reports enhanced by the Institute's global estimates and trends (*Education for All 2000 Assessment*, 2000). Two groups of persons have been used in the study: young adults (aged 15-24 years of age) and adults (aged 15 years and over). Because countries collected data in different ways (household surveys, school surveys, population censuses), resulting in differences in samples and frequency/recency of data collection, the report suggests caution in interpreting reported literacy rates, especially the very high literacy rates. Some of the findings and projections include the following:

- four out of every five adults (aged 15 years and over) in the world are literate
- literacy rates have risen over the past thirty years, to approximately 79 percent in 1998
- there were still some 880 million illiterate adults in the world in 1998 and:
 - two-thirds of them were women
 - more than 98 percent live in less developed regions
 - includes one in seven young adults
- the adult literacy rate is the lowest in Sub-Saharan Africa and South and West Asia (median rates of 57 and 58 percent respectively)
- Latin America, the Caribbean, the Arab States and North Africa have intermediate rates of 88 percent and 80 percent
- the highest adult literacy rates are in East Asia and the Pacific (94 percent), and in Central Asia and Central and Eastern Europe (98 percent).

The report also points out the considerable inter-country disparities within each region. Significantly, for the majority of reporting countries, substantial progress was

made in raising adult literacy rates over the decade, for example, a reported 21 percentage points in Bangladesh. Yet in some regions adult literacy rates dropped as in Honduras (from 27 percent in 1990 to 21 percent in 1998). Gender disparities in literacy only improved slightly over the decade though where the literacy rates are the highest, disparities are the lowest. Gender disparities remain high in South and West Asia, in the Arab States and North Africa, and in Sub-Saharan Africa. It is important to point out that the statistical report not only included findings on young adult and adult literacy levels (and gender disparities) but also examined several core indicators that assess education overall but which are obviously related to literacy over the long-term such as enrollment in early childhood programs, educational levels completed plus expenditures and trained personnel related to the educational systems. This assessment effort is a follow-up on the UNESCO 1990 World Conference on Education held in Thailand in 1990, entitled Education for All (EFA) which set a global agenda for education and literacy with several goals including the reduction of adult illiteracy. This global agenda was part of the World Declaration on Education for All adopted at the Conference which was also part of the International Literacy Year of 1990.

For Asia and the Pacific, the task was assigned to the Asia-Pacific Programme of Education for All (APPEAL). Progress has been made in the Asia and Pacific area according to a UNESCO assessment of the region; from a literacy rate in 1960 of almost 40 percent to close to 69 percent, with the projected rise to 77 percent by 2000. Whether this has been met has not been ascertained. Yet, southern Asia has a rising number of illiterates in terms of absolute numbers even though the percentage has declined. Countries included in these studies included: Bangladesh, China, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, the Philippines, Thailand and Vietnam as part of the Asia-Pacific Programme of Education for All (see

website for Asia Pacific Library Database.) According to a UNESCO Education News in Brief (UNESCO website), a recent survey carried out in India, Nepal, the Philippines and Thailand reveals their adult education programmes' positive impact on personal development, women's empowerment and the economy. A UNESCO-E-9 initiative, which began in 1993, included nine of the world's most populous countries (Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan) and involved planning and management of literacy campaigns and efforts. A UNESCO News in Brief item (UNESCO website) outlined some findings of "What Works in Asia in Literacy Campaigns" including:

- the need to involve the future learners and sensitize them to the usefulness of literacy
- that literacy classes be community-based and designed to improve daily lives
- NGOs have the know-how in mobilizing the community
- the need for attractive, relevant, and accessible literacy and post-literacy materials
- the need for libraries and resource centers
- sustained commitment and perseverance even as governments change.

Role of International Agencies

Several international agencies have been vitally involved in advocating for life-long learning and the acceptance that literacy is a human right. According to Rogers and McChesney in 1984, UNESCO "has played a key role in the promotion of books and libraries... (their) book development program ... Starting out primarily as a promotional program to emphasize the importance of books and reading, it has since laid even greater emphasis on action designed to provide technical advice, equipment, and materials, and professional training, and has above all stressed the need to develop national book policies." (p. 270).

The International Book Year stimulated activities in the world community for book promotion and UNESCO with a plan of action called Books for All. In 1980, UNESCO convened a World Congress on Books in London, with the theme, 'Towards a Reading Society', for the purpose of assessing progress in book promotion since the International Book Year.

UNESCO declared 1990 the International Literacy Year to continue public awareness of illiteracy and to encourage cooperation among countries in combating illiteracy. In 1993, UNESCO published *Guidelines for Public Libraries Promoting Literacy*, a project contracted through IFLA and its Section of Public Libraries. In 1994, UNESCO, in cooperation with the University of Pennsylvania's Graduate School of Education, established an International Literacy Institute in the US for the purpose of providing leadership in research, development, and training in the broad field of literacy at the international level, with an emphasis on developing countries. They have published a CD-ROM and website, which provides an overview of literacy issues and practices, statistics, and innovative projects (see list of websites).

The International Federation of Library Associations and Institutions (IFLA) has had several workshops and pre-conferences on illiteracy: including work by the Section of Public Libraries in 1989 and 1990. Other sections have had workshops such as the combined efforts of the Sections of Children's Libraries, the Blind, Multicultural, and Public Libraries during the India IFLA Conference in 1992. IFLA continues to have an important role in connecting libraries with literacy. In 1994, a proposal was made for a new core program for literacy and reading promotion; in 1995, that recommendation was rejected but a working group on literacy was formed to study the feasibility of such an initiative by IFLA. In 1999, the Final Report of the Working Group on Literacy was submitted to the IFLA Professional Board. The current work of the Sec-

tion on Reading, including the papers at this program, is a follow-up to that work. The Section also sponsored a workshop at the 1998 IFLA Conference on Literacy and Reading Services to Cultural and Linguistic Minorities. The work of the International Reading Association is important to the field of reading and literacy also.

National and International Literacy and Reading Campaigns

In both developed and developing countries there have been major attempts to promote reading and literacy through publicity campaigns which have involved libraries, library associations, the book industry, business, foundations, the media, and governments. Internationally there have been UNESCO efforts with both World Book Day (April) and International Literacy Day (September). Several countries have used these campaigns as the basis for their own national efforts, such as Great Britain's free book vouchers in 1998 to children between 4 and 18 years of age still in school. These efforts are often well funded and generate not only promotional materials but also specific programs and activities in many school and public libraries.

In the UK, their National Year of Reading (September 1998-August 1999), was a major effort administered by the National Literacy Trust which distributed funds for innovative projects that stimulate reading. Several pilot literacy projects were included and several book giveaway programs were part of the efforts. Their theme of Read Me was extended to one of Read On as the project continues for three years. One of the main strengths of such campaigns is the networking that is involved and hopefully continues. Since 1989, the Canada Post has devoted some attention to literacy including the release of three literacy-oriented stamps and stamp sets, with proceeds going to literacy organizations.

In the US there are two specially designated weeks a year, Children's Book Week in the Fall and National Library Week in the Spring. National Library Week (NLW) has been strengthened in the last few years due to a great deal of promotion by the American Library Association with special activities such as the Night of a Thousand Stars (celebrity involvement in reading in each community). In 1991, the Year of the Lifetime Reader was sponsored by the Center for the Book at the Library of Congress, and funded by donations, with then First Lady Barbara Bush as honorary chair.

In Nigeria, since 1981, a Library Week is sponsored by the National Library and with help from the International Reading Association (Loho, 1991). In South Africa, the United States Information Agency, the READ Educational Trust (a 20-year old private NGO which tries to improve education, and provides access to books and libraries in the townships), and local organizations worked with ALA's Peggy Barber to establish a major reading campaign as a five year project beginning in 1995. These are simply examples in an area where almost all parts of the world have similar campaigns or join those of the international organizations such as World Book Day or the International Literacy Day.

Book Access and Funded Projects

Though many of these projects become a part of the reading and literacy campaigns described above, they also have a life of their own in some instances. Several developed countries have established book donation programs, usually targeted at developing countries, such as Book Aid International in the UK (until 1994 known as the Ranfurly Library Service) which sends books donated by publishers and charities to more than sixty countries worldwide and especially targets Sub-Saharan Africa. They also helped set up the Intra-African Book Support Scheme along with the African Books Collective to distribute

African books overseas, to encourage African writers and publishers, and to work closely with World Book Day. The Canadian Organization for Development through Education (CODE) sponsors several projects as well as having formerly served chiefly as a book donation program. Their projects have been predominantly in rural, isolated areas of Africa, usually with partners in other overseas organizations along with those in local communities. Their current target audiences include children up to the age of fifteen and adults with six or fewer years of schooling. For example, they initiated the Children's Book Project in 1991 to support the production and distribution of Tanzanian books, especially books in indigenous languages. Most of their work has been in Africa and the Caribbean. Many other countries have similar international aid organizations, either private or governmental, such as the Danish International Development Agency (DANIDA) and the Swedish International Development Agency (SIDA). Though Japan has also had similar projects, descriptions of their work were not found in the current literature search. The World Bank has made major contributions in many developing countries in the area of literacy and education.

The UK and the US have the most documented reading and literacy initiatives in the 1990s, and many are governmental projects. For example, Reading Is Fundamental (RIF), backed by donations and started in the US in 1966, is a project that provides free books to children through schools and grassroots community organizations. Today RIF cooperates with several other national initiatives including some of the following. The Prescription for Reading program has, since 1997, provided free books through health care providers at each child's health check-up until age six and has given away over one million books. Similar in purpose is the Born to Read programs, and Reach Out and Read, another book giveaway program now in forty-three states. Most of these projects were expanded when the America Reads

Challenge was announced by President Clinton in 1997 for the purpose of having every child in the United States reading independently by the end of grade three, a program administered by the US Department of Education. Several of the projects are partners with the National Center for Family Literacy and Head Start organizations. Most of the projects work with the American Library Association as well as with public and school libraries.

Examples of projects initiated by the book trade include: a project called All Books for Children, sponsored by three publishers (Disney, Harper Collins, and Scholastic) in cooperation with Starbucks Coffee Shops, to provide free books to Boys and Girls Clubs of America; another called First Book started in 1992, through a national non-profit organization with donations from several publishers and bookstores, giving 'first' books to disadvantaged children; a national donation project called the Book Bank based on publisher donations and with foundation support; the Books for Kids Foundation, which provides books to day care centers, shelters, and hospitals; and the National Children's Book and Literacy Alliance (organized by children's authors and illustrators). Every Child a Reader is a 1999 pilot project to distribute remaindered books to literacy groups and children's agencies. The National Education Association (a teachers' group) sponsors an annual event to promote literature, Read Across America. The Newspapers in Education project, supported by local newspapers, the United Way, and other corporations, provides newspapers to classrooms at certain grade levels. Beginning in 2000 a PBS television series, *Between the Lions*, will promote children's reading.

Reading Is Fundamental began in the UK in 1996, backed by corporate funding, and organized by the National Literacy Trust in London. Again, RIF provides free books for young children to choose and own, to motivate reading. According to Blunkett (1998), the UK's Education

and Employment Secretary, the country's National Year of Reading is part of a National Literacy Strategy to ensure that 80 percent of eleven-year olds reach the standard in English by 2002. Also, as part of the NYR, the National Literacy Trust was established including several literacy components. The Royal Mail along with television channels promoted 40,000 adult literacy classes and development of information packs to help in literacy. The BBC television led a Books for Babies campaign. A BookStart project works through health visitors to deliver books and book information into the homes of nine-month old babies.

These are only a few examples from the literature of literacy and reading promotion initiatives but it does appear that book promotion for children and family literacy projects have been the focus of the 1990s in the US and the UK. Some apology should be made again for the many examples from the US, Canada, and the UK, mainly because they appear to be more documented in the English language publications available to the writer.

Libraries and Literacy - Historically and Currently

Libraries did become involved quite early in the adult literacy campaigns and activities though many were (and some still are) reluctant to do so. Both the Library Association in Britain and the American Library Association in the United States have played important roles - especially with school and public library involvement in literacy and reading. The access to adult literacy reading materials, the need for library education to include literacy program information, the need for studies and reports - all were major challenges that brought forth efforts and collaboration from the professional societies. Some early efforts included the establishment in 1924 of the ALA Commission on Library and Adult Education (Lyman, 1977).

The public library in the US responded as early as the 1890s to the language and literacy needs of a large influx of immigrants, providing English and citizenship classes in many urban libraries. Lyman reported on a Reading Improvement Program begun at the Brooklyn Public Library in 1955, which was financed by a grant from the Carnegie Corporation of New York. Public libraries initially provided print materials to help in literacy activities. A focus on social responsibility and outreach was clearly delineated for public libraries during the 1960s and 1970s; literacy activities and an activist approach to users falls easily into the outreach focus.

Throughout the 1960s and 1970s, major efforts were made by a few libraries. Several efforts at federal intervention and federal aid, mainly through the Library Services and Construction Act (LSCA) and the Title IIB of the Higher Education Act, encouraged these efforts at the state level, especially in public libraries. These efforts also showed the need for literacy training through state libraries, networks, and schools of library science. The American Library association was influential in promoting and providing advocacy and training for literacy activities in libraries. In 1978, ALA's Office for Library Outreach Services (OLOS), the office charged with literacy activities, with a grant from the Lilly Foundation, conducted a series of workshops to train librarians in the techniques of establishing literacy programs

Public libraries realized the need for better easy-to-read print materials, the importance of providing space and resources, and sometimes even access to literacy training. Helen Lyman, a pioneer in literacy activities sponsored by public libraries, published two important books, *Library Materials in Service to the Adult New Reader* (1974), and *Literacy and the Nation's Libraries* (1977). By 1980, many libraries were providing the easy-to-read materials, accommodating literacy activities, encouraging staff involvement, providing referral services,

and even financial resources. In the 1980s, ALA's activity and the stimulus of federal funding brought literacy and public libraries more to the forefront. The ALA's work with the Coalition for Literacy, beginning in 1981, allowed the combination of efforts by associations, advertising, the book industry, and literacy organizations, all coordinated by ALA's Office for Library Outreach Services and with the expertise of the Advertising Council Incorporated. This three-year literacy promotion campaign highlighted the existence of widespread illiteracy, the resulting problems in society, and stimulated local efforts with recruitment and involvement including libraries. Statewide and local coalitions were formed; and a great deal of information and networking resulted. In 1984, the federal program of funding libraries, LSCA, was amended with a new title, the Library Literacy Program, which gave more substantial monies to state and public libraries for their literacy efforts. Several states, such as California, were especially successful in their efforts, with statewide planning and major literacy grants from these monies.

In 1986, a major study funded by the US Department of Education, and conducted by the University of Wisconsin-Madison's School of Librarianship, examined the literacy programmes of publicly funded libraries (Johnson, Robbins, and Zweizig, 1990; Bramley, 1991). Johnson (1987) produced a planning manual for the American Library Association, which examined the public library's role in literacy activities and recommended the process of planning such services. The study found that though libraries are active partners in the national literacy effort, public libraries report the greatest involvement in all three literacy roles - collections, instruction, and support services. Over 25 percent of the libraries provided direct literacy instruction. Through a major literature search and questionnaire results they confirmed that public library literacy programs have the longest history. As early as 1963 public libraries were offering litera-

cy services. In many of these libraries, the programs had become a part of 'traditional public library services.' Nearly 50 percent of the libraries reported involvement in literacy coalitions. State library agencies have the most consistent profile of any type of library of literacy services in a 'supporting role'; they are a key information source on literacy providers and the problem of illiteracy; they provide advice and guidance on the use of materials and development of services; and they offer continuing education on the topic of literacy and libraries. Historically, as a fiscal agent for the national LSCA funds, they administer monies for local literacy projects; and sometimes provide state-level funding as well for literacy. This study called for more research on the impact of literacy services and activities at the local and state levels including inclusion of some of the variables they identified as a set of community variables: percent for whom English is a second language, ethnicity, educational levels, and poverty levels. Despite not finding a direct relationship between level of literacy and these community variables, the researchers felt they should be explored further. The main relationship they did find was that between the level of literacy activity and the managers' attitudes toward library literacy services. They found that materials to evaluate literacy programs in public libraries were not available; this led to a major effort in that area, with the publication of the manual, *Evaluation of Adult Library Literacy Programs* (Zweizig, Johnson, and Robbins, 1990).

Salter (1991) provided a discussion of all literacy efforts in the US, in libraries and beyond libraries. This historical and descriptive overview of literacy efforts is still useful today. The White House Conference on Library and Information Services held in the US in 1991 included literacy as one of three major issues, along with democracy and productivity, for discussion during the conference.

Though this brief review of literacy and libraries is primarily based on

the US, similar efforts have been made by the UK, Canada, Australia, and New Zealand according to much of the literature found.

Evaluation Reports

Beder (1991) has synthesized many fragmentary articles and research which provide information about literacy and influenced both policy and practice. His book is helpful as a prelude to the work cited in this paper which is predominately post-1990. His chapter on "Outcomes and Impact" is useful for thinking about evaluation and assessment of literacy programs. His recommendations are based on theoretical principles which have been tested in several studies. Most importantly, he recommends:

- It is more useful to conceive adult illiteracy as being a social construction maintained by social forces than to view illiteracy as being a collection of individual deficits spawned by personal failure (stop blaming the victims).
- Because the great majority of those who are eligible for the federal adult literacy program do not participate, we need to differentiate service to meet the multiplicity of individual needs and provide new models of education to appeal to nonparticipants.
- The adult literacy program which adapts to local needs and conditions has been successful and should not be limited but rather maintain adaptive, pluralistic orientations.
- Though the social justification for federal involvement may be dictated by human capital outcomes, limiting literacy goals to this is not useful, but rather should include attention to individual goals and needs.

Some evaluation efforts of specific library literacy projects provide useful information on the issues and processes of evaluation such as Quigley's 1994 publication on the Vancouver Public Library (Canada) project. Other manuals on evaluation of library literacy projects were found: one by the New York State

Library (*Evaluating Library Literacy Programs*, 1991).

Evans (1998) describes an evaluation process used for evaluating CODE's activities in Africa, a process developed by Gwynneth Evans and Raymond Genesse in the 1990s as a framework for identifying basic benchmarks and measuring progress. As noted before, CODE projects have been predominantly in rural, isolated areas of Africa, and include partnerships with overseas organizations and those in local communities. Retrenchment of funding from the Canadian International Development Agency in the early 1990s required CODE to close regional offices and form even stronger partnerships with local agencies. This necessitated the need for more results-based management and a framework of monitoring and evaluation. The process consisted of surveys at local sites of management committees and target audiences both as baseline data and outcome data. This helped establish profiles of library services in each community and provided information on the program's impact on reading behavior. All types of data were used: interview, quantitative (census data), use of libraries, reading habits, and level of satisfaction with library services. Consultants traveled to local communities and collected the data including observational and anecdotal data. Using the benchmark data and information from many international studies of literacy, six key assumptions were used as the organizational and analytical framework:

1. Literacy is a concept, a process, and a skill that has meaning in relation to the demand of the economy and society or individuals and communities.
2. Literacy is a mode of behavior, which enables individuals and groups to gather, analyze and apply written information to function in society.
3. Communities have a responsibility for creating a culture of literacy for their members, if they value development.
4. If literacy is to culminate in a print mentality, the importance

of the oral tradition and the communal nature of learning in African society must be understood and integrated into the approaches and programmes of local groups.

5. If libraries are to support the reading habits of their citizens, they must understand the information needs of their communities.
6. Literacy assists citizens in taking advantage of the changes affecting all societies, as well as allowing them to safeguard their traditions and values.

According to Evans, the rationale for evaluation was the need to develop indicators which would allow the programs to assess their own performance. They also wanted to involve each project's African and Caribbean partners. This allows the communities to both know their own communities and to assess their own effectiveness. This allows them to plan and manage their programmes, and also puts them in a position to make their needs and successes known beyond their communities - perhaps for future funding. Their evaluation efforts made it very clear that community members are rarely involved in identifying their own needs, and one of the strongest needs is providing appropriate materials (i.e. information related to agriculture, health, and community development) in languages used by the people. Evans and Genesse applied this mode of evaluation and these assumptions to a literacy and libraries project in Peru, and found that several of the assumptions proved applicable. The Peruvian project dates from the early 1970s with recognition of community needs - common languages, and cultural commonalities. The aim of CODE, and its motto throughout the 1990s, 'self sufficiency through literacy in the developing world' is at the core of their evaluation processes.

Several case studies of rural communities in Zimbabwe are presented by Moyo (1995) of projects sponsored by the Rural Libraries and Resources Development Programme (RLRDP) in establishing

forty-two rural school/community libraries (some in storerooms or unoccupied classrooms). Their emphasis on community involvement is obvious even though several organizations within Zimbabwe (Book Development Council, Library Association, National Library) serve as partners as do some international organizations including CODE (Canada). Specific outcomes of these efforts included: progress in academic examination passes, income-generating projects, and community-based meetings. Here, as in most of the projects in developing countries, one of the greatest constraints is the lack of reading materials; another is the need for more training on the part of library or literacy managers.

The work of Zweizig et al (1990) is the major evaluation tool developed in the US for libraries and literacy. The manual introduces an overall process for evaluation and specific measures of relevance for literacy programs, beyond measures of student progress alone. The manual drew from previous work on public library planning and evaluation models commissioned by the American Library Association. Seven steps in the process include the following:

1. Determine the target area (specific goal(s): what you want to accomplish (effectiveness) and/or how well you want to do it (efficiency).
2. Set the target (measurable objectives).
3. How will you know? (Types of measurement, assessment).
4. Take a look (gather the evidence).
5. How close are you? (Comparison with target and actual figures).
6. So what? (Is it good enough? Should you reassess the targets? Analyze the reasons for not achieving targets).
7. Rethink (need to refine the target, involve other constituents).

They recommend that a sample program profile should be developed with the kinds of information needed to understand the literacy

level of the community, the current literacy efforts beyond the library, and the resources available to the library, such as space, personnel, collections, and equipment. Specific literacy program measures are suggested along with specific criteria for three areas of measurement: collections, support services, and instruction. In addition to these quantitative measures, some suggestions for other evaluation approaches are described including qualitative measures such as the degree of cooperation between the library and other service providers, and information from both tutors and learners. This work reflects current thinking on evaluation, the importance of outcomes especially to end-users. Johnson (1987) pointed out the critical area of a need for evaluation of literacy programs - what differences do these programs make? This highlights the need for well-specified objectives for literacy programs so that they can be adequately evaluated including all aspects of the library's role in literacy, rather than limited to only the learner's progress, such as: collection development, support services, and adequacy of funding and resources.

More recently, much has been written about the need to break the cycle of illiteracy through generations, mainly through family and inter-generational literacy programs. Much of the literature has been devoted to family literacy projects, including *Library-based Family Literacy Projects* (Monsour and Talan, 1993). These projects have been suggested as models for public libraries nationwide in cooperative work between libraries and other community agencies. The concept of partnerships in the joint coordination of each organization's resources and expertise led to the most successful projects. The authors feature these projects as ones that should be replicated and they tried to identify components of such projects that have led to their success. All of the projects developed individual evaluation plans for their libraries based on the specific goals for the project in the community. Included in the 'lessons

learned' are: team building, the difficulty and importance of recruitment, the need to plan for the different age groups of children including child care during tutoring sessions for parents, the importance of quality literature for sharing, the need for coalition building with other community agencies including marketing and publicity, the need for personal contact and follow-up, and the recognition of the public stake in family literacy including information and feedback to community leaders.

Outside the library field, there is a great deal of work on both establishing and evaluating literacy programs, such as the work by Bhola (1990). These are especially useful as librarians work with those in educational systems and community-based organizations who often do not see the literacy role and activities as part of public libraries. Also, in many developing countries, the lack of a strong public library system and the lack of books and reading materials, especially in the indigenous languages, mean that some literacy projects must work without the institutional structure of libraries.

Guidelines for Libraries Involved in Literacy

Several countries and organizations have worked on guidelines, some for establishing literacy programs in libraries, especially public libraries, others for a specific type of program, such as family literacy programs, and some for developing training guidelines for library workers (Scott, 1995). The most extensive ones to date appear to be those by UNESCO in 1993 under contract with IFLA and under the direction of Barbro Thomas: *Guidelines for Public Libraries Promoting Literacy*. This follows extensive meetings organized by IFLA concerning the role of public libraries in literacy work, and follows UNESCO's 1990 International Literacy Year. Following this work, a third revision of the UNESCO Public Library Manifesto was issued in 1994 after a long period of work.

This Manifesto addresses functional literacy and the principle of human rights with open access for all.

Now that there are more studies of illiteracy around the world, more recognition of the need for individualized community programs based on local needs, as well as new models for literacy programs - including adult literacy, family literacy and workplace literacy projects - perhaps it is time for another try at guidelines for libraries and literacy efforts. There also appears to be a need for more international coordination of library and literacy efforts, as a clearinghouse of information and as a coordinator of potential funding sources, among other functions.

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Bibliography, August 2000
developed by
Dr. Shirley Fitzgibbons**

Monographs

- Adult literacy in OECD countries: technical report on the first international adult literacy survey.* Washington, DC: US Department of Education, 1998.
- International Survey of Literacy**
- Adult literacy in America: A first look at the results of the national adult literacy survey.* Washington, DC: US Department of Education, 1993.
- National Survey of Literacy**
- Atkinson, Tannis, ed. *Listen to women in literacy.* Halifax, NS: Fernwood, 1994.
- Beach, Richard, ed. *Multidisciplinary perspectives on literacy research.* Urbana, IL: National Council of Teachers of English, 1992.
- Beder, Hal. *Adult literacy: issues for policy and practice.* Malabar, FL: Krieger, 1991. Research-based with implications for policy and practice.
- Beyond literacy: the second Gutenberg revolution.* San Francisco: Saybrook, 1989.
- Bhola, H.S. *Evaluating 'Literacy for Development' Projects, Programs, and Campaigns.* UNESCO Institute for Education and the German Foundation for International Development, 1990. **Evaluation**
- Bramley, Gerald. *Adult literacy, basic skills and libraries.* London: Library Association, 1991. ABE, ESL, and library-based literacy services included. Outlines planning, staffing, collections, tutoring, programming policy and evaluation.
- Clark, Warren. *Adult Literacy in Canada, the United States and Germany.* (<http://www.nald.ca/fulltext/pat/AL/h.htm>).
- Constantino, Rebecca, ed. *Literacy, access and libraries among the language minority community.* Maryland: Scarecrow Press, 1997.
- Corcoran, Rhonda. *Student recruitment: an exploration of marketing strategies for literacy programs.* Chapel Hill, NC: University of North Carolina at Chapel Hill (thesis), 1996.
- Education for All 2000 Assessment: Statistical Document.* World Education Forum, Dakar, Senegal, 26-28, April 2000. UNESCO Institute for Statistics for the International Consultative Forum on Education for All, 2000. (UNESCO web page: www.unesco.org).
- Evaluating library literacy programs: a manual for reporting accomplishments.* Albany, NY: University of the State of New York, State Education Department and New York State Library, Division of Library Development, 1991. "Provides a comprehensive explanation of a four-step model for evaluating library literacy programs. Discusses current practices, presents the new model, discusses issues in evaluation, model application and information use." (ERIC Document Reproduction Service no. ED 345722). **Evaluation**
- Final Report: Working Group on Literacy.* IFLA, Literacy Working Group, August 1999.
- Includes regional literacy reports on Russia, Asia and Oceania, Africa, the Caribbean, the US and Canada.
- Hladczuk, John, et al. *General issues in literacy/illiteracy.* New York: Greenwood Press, 1990.
- Hladczuk, John, et al., eds. *Literacy/illiteracy in the world: a bibliography.* New York: Greenwood Press, 1989.
- Humes, Barbara A. and Carol Cameron Lyons. *Library literacy program: analysis of funded projects 1992.* Washington, DC: US Department of Education, 1992. (Microfiche/SUDOCs).
- Humes, Barbara A. *Public libraries and community-based education: making the connection for lifelong learning.* Washington, DC: US Department of Education, 1996.
- Johnson, Debra Wilcox. *Libraries and literacy: a planning manual.* Chicago, IL: American Library Association, 1987.
- Johnson, Debra Wilcox, and A. Leslie Edmonds. *Family literacy library programs: models of service.* Des Moines, Iowa: Iowa State Library, 1990. Outlines different partnership models, family literacy activities, planning, and issues. **Role of libraries in literacy**
- Johnson, Debra Wilcox, Jane B. Robbins, and Douglas L. Zweizig. *Libraries: partners in adult literacy.* Ablex Publishing Corp., 1990. Discusses libraries' roles in literacy activities. Examines current levels of library-based literacy activities. **Role of libraries in literacy - US**
- Kaestle, Carl F. et al. *Literacy in the United States: readers and reading since 1880.* New Haven: Yale University Press, 1991. **History**
- Kozol, Jonathan. *Illiterate America.* Garden City, NY: Anchor Press, 1985.
- Lancy, David, ed. *Children's emergent literacy: from research to practice.* Westport, CT: Praeger, 1994.
- Literacy and reading services to cultural and linguistic minorities.* Section on Reading, 64th IFLA General Conference, Amsterdam, August, 1998.
- Literacy, economy and society: results of the first international adult literacy survey.* Organization for Economic Cooperation and Development and Statistics, Canada, 1995.
- Literacy in the information age: final report from the international adult literacy survey.* OECD and Statistics, Canada. (June 2000).
- Literacy of older adults in America: results from the National Adult Literacy Survey.* Washington, DC: US Department of Education, 1996.
- Literacy skills for the knowledge society: further results from the international adult literacy survey.* Organization for Economic Cooperation and Development and Human Resources Development Canada, 1997. (www.oecd.org).
- The literacy tool kit: a resource for libraries.* Regina, Saskatchewan: Regina Public Library and the Saskatchewan Library Association, 1996. Initiating literacy activities including planning, needs assessments, promotion, partnerships, and program evaluation. "Divided into four sections: *A Vital Link: Libraries and Literacy* discusses literacy and libraries' roles in the literacy movement; *Making the Link: Libraries Taking Action* outlines the practical considerations involved in initiating literacy activities, including planning, community needs assessments, partnerships and promotions, and program evaluation; *The Ideas File* offers

- ideas on assessment and evaluation, programming, funding and partnering, and promoting and marketing; *Extra Tools* includes a copy of *Libraries and Literacy* (Ontario: Ministry of Culture and Communications, 1989) and *Public Libraries and Literacy: toward a national front line strategy* (National Working Summit on Libraries and Literacy (1995: Calgary, Alta.)." Thomas Quigley).
- Lyman, Helen H. *Library materials in service to the adult new reader*. Chicago, IL: American Library Association, 1974. **History**
- Lyman, Helen H. *Literacy and the nation's libraries*. Chicago, IL, American Library Association, 1977. **History**
- Monsour, Margaret. *Library-based family literacy projects*. Chicago, IL: American Library Association, 1993.. Synopsis of successful family literacy programs. **Role of libraries in literacy**
- Quezada, Shelley. *Developing literacy programs in small and medium-sized libraries*. Small Libraries Publications, 22. Chicago, IL: American Library Association, 1996.. Outlines library-based activities and issues involved, development of library-based instructional programs. Bibliography of sources including literacy listservs and library-literacy websites. **Role of libraries in literacy**
- Quigley, Thomas. *Public libraries and literacy: toward a national front line strategy*. Ottawa, Canada: Canadian Library Association, 1995. The report of CLA's summit on libraries and literacy (National Working Summit on Libraries and Literacy (1995; Calgary, Alta.) **Role of libraries in literacy - Canada**
- Quigley, Thomas, Stephanie Kripps, and Tim Firth. *Vancouver Public Library literacy evaluation project*. Victoria: British Columbia, Ministry of Skills, Training and Labour, 1994. "Offers a good example of the issues involved when evaluating library literacy services. Includes an extensive bibliography and a survey of literature in the area of evaluating literacy services, and a history of the VPL's literacy activities." Evaluation, **Role of libraries in literacy**
- Reading the future: a portrait of literacy in Canada. Statistics Canada, Human Resources Development Canada and the National Literacy Secretariat, 1996.
- Salter, Jeffrey L. et al. *Literacy and the library*. Englewood, CO: Libraries Unlimited, 1991.. Includes collections, outreach, partnerships and evaluation. **Evaluation**
- Scheel, Grace. *Libraries and literacy: a manual*. Toronto, Ont.: Ministry of Culture and Communications, 1989.. "Outlines ways libraries can support literacy. Provides a brief background to literacy, explains possible relationships between literacy and libraries, suggests activities and sources of funding, as well as provides some issues for practical consideration." **Role of libraries in literacy - Canada**
- Seager, Andrew J., et al. *Embracing the tiger: learning from public library literacy programs*. Portsmouth, NH: RMC Research Corporation, 1993. Examines twenty libraries with integrated literacy programming with an in-depth analysis of five of the libraries. **Evaluation**
- Senator, Rochelle B. *Collaborations for literacy*. Westport, CT: Greenwood Press, 1995.
- Shockley, Betty, et al. *Engaging families: connecting home and school literacy communities*. Portsmouth, NH : Heinemann, 1995.
- Smith, M. Cecil, ed. *Literacy for the twenty-first century: research, policy, practices, and the National Adult Literacy Survey*. Westport, CT: Praeger, 1998.
- Sum, Andrew. *Literacy in the labor force: results from the National Adult Literacy Survey*. Washington, DC: US Dept. of Education, Office of Educational Research and Improvement, National Center for Education Statistics, 1999.
- Taylor, Maurice C. and James A. Draper, eds. *Adult literacy perspectives*. Malabar, FL: Krieger, 1993.
- Thomas, Adele and Bram Fisher. *Assessment and evaluation strategies in family literacy program development*. St. Catherines, Ont.; Brock University, Ottawa: Bonanza Press for the National Literacy Secretariat and Ontario Training and Adjustment Board, 1996. Experiences of four community-based literacy programs and a variety of assessment procedures including the EPE model for evaluation. **Evaluation**
- US Congress. Office of Technology Assessment. *Adult literacy and new technologies: tools for a lifetime*, OTA-SET-550. Washington, DC: US Government Printing Office, 1993. **Literacy and Technology**
- Venturella, Karen M., ed. *Poor people and library services*. Jefferson, NC: McFarland, 1998.
- Weibel, Marguerite Crowley. *The library as literacy classroom*. Chicago: ALA, 1992. Presents different learning models, bibliographies for collections, reading programs, sample activities and lessons, partnerships. **Role of libraries in literacy**
- Weingand, Darlene E. *Connections - literacy and cultural heritage: lessons from Iceland*. Metuchen, NJ: Scarecrow Press, 1992.
- Women in literacy speak*. Halifax, NS: Fernwood, 1994.
- Zweizig, Douglas, Debra Wilcox Johnson, and Jane B. Robbins. *Evaluation of adult library literacy programs*. Chicago, IL: ALA, 1990. **Evaluation**

Resources and Websites (useful as of June 2000)

- Asia Pacific Cultural Center for UNESCO. (<http://www.accu.or.jp/index>).
- Book Aid International (London). (<http://www.bookaid.org>).
- Canada's Adult Literacy Information Network. National Adult Literacy Database (NALD) (<http://www.nald.ca>).
- Center for the Book in the Library of Congress, Washington, DC. (<http://lcweb.loc.gov/loc/lcib/9906/cfb.html>).
- International Literacy Institute. University of Pennsylvania/Graduate School of Education and UNESCO Literacy Explorer. (<http://www.literacyonline.org/index.html>).
- International Reading Association, (Newark). (<http://www.reading.org/>).
- Laubach International (<http://www.laubach.org>).
- Literacy Resource Centre Catalogue. [Ottawa]: The Dept. of Multiculturalism and Citizenship Canada, Departmental Library and the National Literacy Secretariat, 1993.
- Literacy Volunteers of America (<http://www.literacyvolunteers.org/home/index.htm>).
- National Assessment of Adult Literacy Website. National Center for Education Statistics. 2002, US (<http://nces.ed.gov/naal/92/overview.html>).
- National Center for Education Statistics. US Department of Education. (<http://nces.ed.gov>). National Adult Literacy Survey reports are found here and some information from the International Adult Literacy Survey. (<http://nces.ed.gov/naal>).
- National Center for Family Literacy, Louisville, Kentucky (US) (<http://www.familit.org/>).
- National Center on Adult Literacy (NCAL), US, University of Pennsylvania, Literacy Online. (Shares center with International Literacy Institute). (<http://www.literacyonline.org>).
- National Institute for Literacy (US) (<http://www.nifl.gov/>).

- National Literacy Secretariat Home Page (Canada). (<http://www.ncald.ca/nls.htm>).
- Organization for Economic Cooperation and Development (OECD). (<http://www.oecd.wash.org/PRESS/PRESRELS/news9794.htm>) and (<http://www.oecd.wash.org/PUBS/PRINPUBS/rp975ed.htm>) and (<http://www.oecd.wash.org/PUBS/PRINPUBS/rp003ed.htm>) also in Paris: (<http://www.oecd.org/els/edu/index.htm>).
- Reading is Fundamental, Washington, DC (<http://www.rif.org/>).
- Statistics Canada (<http://www.statcan.ca>). Includes press releases and lists reports pertinent to literacy.
- UNESCO Institute for Education (UIE) (<http://www.unesco.org/education>). Includes: UNESCO literacy prizes, Education News, information on International Literacy Day, literacy studies and other publications.
- UNESCO Institute for Statistics (UIS), the statistical branch, was established in July 1999; now is located in Paris, France but will be moving to Montreal, Canada in 2001. (<http://unesco-stat.unesco.org>). Includes new publications such as the Education for All Year 2000 Assessment report in pdf format.
- World Bank (<http://www.worldbank.org/html>). Includes news and reports of literacy and educational activities.
- Articles**
- Attenborough, Liz. "National year of reading: quality winners." *Library Association Record* 100, no. 7 (July 1998): 344. **National Year of Reading-UK**
- Attenborough, Liz. "National year of reading: publicity for literacy in Great Britain." *Library Association Record* 100, no. 8 (Aug. 1998): 396. **National Year of Reading - UK**
- Attenborough, Liz. "National year of reading: final preparations for promotion." *Library Association Record* 100, no. 9 (Sept. 1998): 452. **National Year of Reading - UK**
- Attenborough, Liz. "National year of reading: imaginative projects in Great Britain." *Library Association Record* 101, no. 4 (Apr. 1999): 203. **National Year of Reading - UK**
- Attenborough, Liz. "National year of reading: descriptions of several NYR projects." *Library Association Record* 101, no. 6 (June 1999): 332. **National Year of Reading - UK**
- Attenborough, Liz. "National year of reading: reaching new readers." *Library Association Record* 101, no. 7 (July 1999): 393. **National Year of Reading - UK**
- Attenborough, Liz. "National year of reading." *Library Association Record* 101, no. 8 (Aug. 1999): 446. **National Year of Reading - UK**
- Barber, Peggy. "Consulting assignment - READ Educational Trust." *International Leads* 9 (Spring 1995): 5 - 6. **National reading campaign - South Africa**
- Barber, Peggy. "Computers, technology, books - yes, but literacy must come first." *American Libraries* (May 1997): 42 - 43. **Role of libraries in literacy**
- Benseman, John. "Adult literacy and libraries: the meetings of the twains." *New Zealand Libraries* 48, no. 5 (March 1996): 94 - 97. **Role of Libraries and literacy - New Zealand**
- Berkeley, Virginia. "The National Year of Reading: an idea whose time has come?" *School Librarian* 46, no. 2 (Summer 1998): 60 - 61. **National Year of Reading - UK**
- Bishop, Kay. "Literacy as a right: efforts to improve literacy in Mississippi." *Mississippi Libraries* 61, no. 3 (Fall 1997): 67 - 68. **National efforts - US**
- Blatchford, Roy. "Reading Is Fundamental: a mission to read." *Librarians' World* 6, no. 1 (1997): 2 - 3. **Reading Is Fundamental - UK**
- Blunkett, David. "National Year of Reading: reading from the same script." *Library Association Record* 100, no. 3 (Mar. 1998): 120 - 122. **National Year of Reading - UK**
- Boggs, Marlana. "The beginnings of a literacy program at Mid - Continent Public Library." *Show - Me Libraries* 46 (Fall 1995): 42 - 45. **Family literacy - US**
- Burnett, Anne. "Literacy provision at the Upper Murray Regional Library." *Link-up* (Sept. 1996): 34 - 35. **Role of libraries in literacy - Australia**
- "Cargill \$50,000 to continue international literacy efforts." *American Libraries* (Jan. 1994): 120. **Family literacy, funding**
- Church, Misty. "The National Institute for Literacy." *The Bowker Annual Library and Book Trade Almanac*, 1993, pp. 63 - 75. **National efforts - US**
- Constantin, D. "Operation villes lecture." *Bulletin des Bibliothèques de France* 43, no. 5 (1998): 22 - 26. **Role of libraries in literacy - France**
- Coomber, Janet. "Great Britain: ten million free book vouchers for pupils on World Book Day." *The Unabashed Librarian* no. 106 (1998): 31 - 32. **Access to books - UK**
- Danset, Françoise. "Conférence mondiale des ONG." *Bulletin d'Informations de l'Association des Bibliothécaires* 169 (1995): 127 - 129. **National/international campaigns - International Decade of Literacy**
- Das, I. V. "Public library movement in Kerala." *Herald of Library Science* 38, no. 1 - 2 (1999): 83 - 89. **Role of libraries in literacy in developing countries - India**
- Das, Kailash Chandra. "Library and literacy in India." *Lucknow Librarian* 25, no. 3 - 4 (1993): 95 - 99. **Role of libraries in literacy in developing countries - India**
- Davis, Nancy Harvey and Pam Fitzgerald. "Libraries and the 1991 Literacy Act." *Library Journal* (Dec. 1992): 41. **Government and literacy - US**
- DiAlesandro, Mary Anne. "From among us: literacy programs offer tangible benefits." *American Libraries* (Dec. 1998): 40 - 45, 48. **Evaluation - US**
- Dike, Virginia W. "Literacy without libraries: promoting literacy among school children in Nigeria." In *Literacy: Traditional, Cultural, Technological: Selected Papers from the 23rd Annual Conference, International Association of School Librarianship* (1995): 33 - 41. **Literacy - Nigeria**
- Di Marzo, Cindi. "Scholastic expands its role in reading initiative." *Publishers Weekly* (May 25, 1998): 29. **Funding, partnerships**
- Eiselstein, June. "Libraries, literacy, and technology: new tools for enhancing learning." *Wilson Library Bulletin* (Nov. 1990) 27 - 29, 158. **Use of technology with literacy programs**
- Ellingson, Jo Ann. "21st - Century literacy: libraries must lead." *American Libraries* (Dec. 1998): 52 - 53. **Role of libraries in literacy - US**
- Evans, Gwynneth. "Celebrating literacy - Sept. 8 and every day." *Feliciter* 43, no. 9 (Sept. 1997): 20. **International Literacy Day - Canada**
- Evans, Gwynneth. "Literacy and rural libraries: Canadian researchers in Africa draw ideas from Peru." *Logos* 9, no. 2 (1998): 80 - 85. **Role of libraries in literacy - Peru**
- "Ex - Senator Simon says literacy needs librarians." *American Libraries* (May 1999): 16. **Role of libraries in literacy - US**
- "Family literacy literature: what's out there." *The Unabashed Librarian* no. 82 (1992): 21 - 24. **Family literacy - US**
- "Family literacy workshops held." *Library of Congress Information Bulletin* 57, no. 11 (Nov. 1998): 282 - 283. **Funding, family literacy - US**

- Feehan, Patricia E. "Library and information science education literacy update." *The Bookmark* (Spring 1992): 223 - 226. **Training library educators in literacy**
- Feldman, Sari, and Robert Needleman. "Take two board books, and call me in the morning." *School Library Journal* (June 1999): 31 - 33. **National campaigns - Reach Out and Read - US**
- "Forging Forward - the national symposium on information, literacy and the school library." *School Libraries in Canada* 17, no. 3 - 4 (Summer/Fall 1997): 1 - 25. **Role of school libraries in literacy - Canada**
- Furlough, Mary. "The *America Reads Challenge* Program." *Arkansas Libraries* 55, no. 2 (Apr. 1998): 7 - 8. **National campaigns - US**
- Gallahar, Christine. "Literacy is an essential pre - condition for the effective exercise of human rights." *Florida Libraries* 38 (Jan. 1995): 8 - 9, 14 - 17. **General**
- Gibbs, R. "Libraries and literacy: the role of Australian public libraries." *Aplis* 3 (1990): 123 - 128. **Role of libraries in literacy - Australia**
- Gibson, Julie. "Lewisham, libraries and literacy 2000: a partnership approach." *School Librarian* 46, no. 1 (Spring 1998): 10 - 11. **National campaigns - UK**
- Gislason, Thora. "Alpha Ontario: an innovative provincial literacy resource." *Feliciter* 42, no. 9 (Sept. 1996): 24 - 28. **Literacy resource centers - Canada**
- Gorman, Audrey J. "The 15 percent solution: literacy and learning disabilities." *American Libraries* (May 1997): 52 - 53. **Literacy and LD students - US**
- "Guidelines for public libraries promoting literacy." Prepared by Barbro Thomas for IFLA. Paris, UNESCO, 1993. **Guidelines for libraries - international**
- Harper, Joann. "The Heartland book bank: fighting illiteracy one book at a time." *Missouri Library World* 3, no. 3 (Summer 1998): 27. **Access to books - US**
- Howarth, Alan. "National Year of Reading." *Library Association Record* 101, no. 3 (Mar. 1999): 142. **National Year of Reading - UK**
- "Innovative adult literacy project awards." *California State Library Foundation Bulletin* 41 (Oct. 1992): 27. **Funding of literacy - US**
- "International literacy awards." *IFLA Journal* 19 (1993): 110 - 111. **Funding, awards**
- "International Literacy Day highlights education." *ALA Washington News* (Sep. 1999): 6. **National campaigns - International Literacy Day**
- Jambhekar, Neeta. "National policy on public libraries in India." *Third World Libraries* 5, no. 2 (Spring 1995): 9 - 21. **Literacy and library development - India**
- Johannot, Y., et al. "Autour de l'écrit et de sa maîtrise: agir contre l'illettrisme à Grenoble." *Bulletin des bibliothèques de France* 43, no. 5 (1998): 22 - 26. **Family literacy - France**
- Johnson, Debra Wilcox. "Breaking the cycle: the role of libraries in family literacy." *RQ* 32, no. 3 (Spring 1993), 318 - 321. **Family literacy - US**
- Johnson, Debra Wilcox. "Libraries and literacy: a tradition greets a new century." *American Libraries* (May 1997): 49 - 51. **Role of libraries in literacy - US**
- Johnson, Debra Wilcox. "Measuring up: making literacy evaluation meaningful." *Wilson Library Bulletin* (Nov. 1990): 35 - 39+. **Evaluation**
- Jones, Adele. "Libraries as centres for community literacy." *Information Development* 7, no. 2 (Apr. 1991): 86 - 88. **Role of libraries in literacy - Fiji**
- Kaula, P. N. "Adult education and public libraries." *Herald of Library Science* 38, no. 1 - 2 (1999): 62 - 69. **Role of libraries in literacy in developing countries**
- Khan, Ayub. "Marketing/youth: drawing in the minority parents." *Library Association Record* 100, no. 1 (Jan. 1998): 28 - 29. **Preschool literacy - UK**
- Lavoie, Sylvain. "Literacy in New Brunswick: ça pète le feu en alphabétisation." *Feliciter* 42 (July/Aug 1996): 79. **UNESCO award projects - Canada**
- Leach, Allan. "Illiteracy and blindness." IFLA General Conference, New Delhi, 1992. **Literacy and blindness**
- Lehmusvuori, Paivi and Kukko, Ulla. "Seven million pages a month - the Tuttemuj reading campaign." *Scandinavian Public Library Quarterly* 31, no. 4 (1998): 4 - 6. **Reading campaign - Scandinavia**
- Lema, Elieshi. "Building a book industry: start with the children." *Logos* 8, no. 2 (1997): 91 - 95. **Access to books - Africa**
- "Libraries and literacy: 'one of the best systems in the world because everyone can use it.'" *Australasian Public Libraries and Information Services* 8 (June 1995): 86 - 97. **Role of libraries in literacy - developing countries/ Australasia**
- Lindholm - Romantschuk, Ylva. "The publishing of children's books and the promotion of literacy and reading in the Scandinavian countries." *International Association of School Librarianship: Proceedings of the 18th Annual Conference* (1990): 519 - 531. **General - Scandinavian countries**
- "Literacy and libraries: a spectrum of services." *Feliciter* 42 (April 1996): 26 - 39. **Role of libraries in literacy**
- "Literacy strategy embraced as priority model." *American Libraries* (March 1998): 87. **Professional association work with literacy - US**
- Lomax, Mary Elizabeth. "Promoting family literacy with teen parents." *Nebraska Library Association Quarterly* 28, no. 2 (Summer 1997): 9 - 14. **Family literacy - US**
- Loho, Sugh. "A readership promotion campaign for Nigerian youth." *Journal of Youth Services in Libraries*, (Winter 1991): 141 - 148. **Reading Campaign - Nigeria**
- Lora, Patricia. "Libraries and literacy in America 1985 - 2000." *Public Libraries* (Nov./Dec. 1990): 354 - 359. **Role of libraries in literacy - US**
- Ludman, Barbara. "A rainbow nation of illiterates." *Cape Librarian* 39, no. 7 (Aug. 1995): 42. **Evaluation, nationwide study - S. Africa**
- Lund, Leonard. "CD - ROM helps fight illiteracy." *CD - ROM World* (April 1993), 57 - 63, 65. **Work force literacy**
- MacPhee, Joyce. "Born to Read Day fosters family literacy." *Feliciter* 41 (April 1995): 16 - 17. **Family literacy - Born to Read - Canada**
- Madden, Susan B. "Stone soup: building local coalitions for literacy." *ALKI* 11, no. 2 (July 1995): 29 - 31. **Role of libraries in literacy, partnerships - US**
- Maughan, Shannon. "Checking up on literacy." *Publishers Weekly* (Oct. 5, 1998): 35 - 37. **Family literacy - Prescription for Reading Partnership - US**
- Maughan, Shannon. "Literacy gets a new spokesperson." *Publishers Weekly* (July 26, 1999): 26. **Access to books - First Book - US**
- Mayfield, Margie I. "Family literacy & the school library." *School Libraries in Canada* 18, no. 1 (1998): 13 - 15. **Family literacy - school libraries - Canada**
- McGurrin, Tim. "Canada Post and libraries team up to celebrate Winnie - the - Pooh and literacy." *Feliciter* 43 (Mar. 1997): 21. **Funding of literacy, partnerships - Canada**
- Monsour, Margaret. "Successful programs of the Bell Atlantic/ALA family

- literacy project." *Catholic Library World* 64 (Oct./Nov./Dec. 1993; Jan./Feb./Mar. 1994): 57 - 66. **Funding, professional associations - US**
- Morris, Estelle. "New initiatives for the National Year of Reading." *School Librarian* 47, no. 2 (Summer 1999): 60, 71. **National Year of Reading - UK**
- Moyo, Obadiah T. "Grass - roots activities and case studies in information provision to rural communities." In *Seminar on Information Provision to Rural Communities in Africa* (1994: Gaborone, Botswana). [Uppsala, Sweden]: Uppsala University Library, 1995: 58 - 62. **Evaluation - Case studies - Africa**
- Nagakura, Mieko. "The promotion of reading for children through library services in Japan." *International Association of School Librarianship: Proceedings of the 18th Annual Conference* (1990): 460 - 476. **Role of libraries in literacy - Japan**
- "A national reading policy?" *Library Association Record* 101, no. 2 (Feb. 1999): 76. **Government policy and literacy - UK**
- "New international literacy institute to revitalize literacy work in developing countries." *IFLA Journal* 21, no. 1 (1995): 68 - 69. **International efforts - UNESCO**
- "New literacy charity gets down to work." *Library Association Record* 95 (Nov. 1993): 607. **Funding, National campaigns - UK**
- Newa, John M. "Libraries in national literacy education programmes in Africa south of the Sahara: the state - of - the - art." *International Library Review* 22 (1990): 73 - 94. **Role of libraries in literacy - Africa (South of the Sahara)**
- Orange, Satia. "ALA's OLOS: reaching out to library outreach programs." *North Carolina Libraries* 57, no. 1 (Spring 1999): 20 - 21. **Professional association work with literacy - US**
- "Outreach success story." *The Unabashed Librarian* 103 (1997): 4. **Role of libraries in literacy - US**
- Paavo, Adriane. "Zimbabwe's literacy magazine: Read on." *Alternative Library Literature* 1990 - 1991 (McFarland & Co., 1992), 199 - 202. **Literacy - Zimbabwe**
- Paparella, L. "Cultural diversity in South Australian libraries." *Link - up* (Dec. 1995): 14 - 15. **Role of libraries in literacy - South Australia**
- Pateman, John. "Keep the red flag flying." *Focus on International and Comparative Librarianship* 26, no. 2 (10 Sept. 1995): 108 - 113. **Government and literacy - Cuba, China, North Korea, Vietnam**
- Pelzman, Frankie. "BBF literacy grants." *Wilson Library Bulletin* (Feb. 1992): 19. **Funding, Family literacy - Barbara Bush Federation - US**
- Pelzman, Frankie. "Can everybody out there read this?" *Wilson Library Bulletin* (Nov. 1990): 15. **Family literacy - US**
- Poole, Janet. "Libraries and literacy in rural and remote areas." *Link - up* (Sep. 1995): 12 - 15. **Role of libraries in literacy - Australia**
- Prete, Barbara. "Family literacy: an intergenerational approach." *Publishers Weekly* (May 25, 1990): 38. **Family literacy - US**
- Probert, Ingrid, and Janette Kerr. "Breaking the vicious circle." *Library Association Record* (Apr. 1996): 208 - 209. **Family literacy - UK**
- "Publishers join first lady's literacy initiative." *The Unabashed Librarian* 103 (1997): 28. **Family literacy - US**
- Rainey, Melvyn D. "Literacy and reading in the South Pacific: problems and solutions." *School Libraries Worldwide* 2, no. 1 (1996): 1 - 8. **General - South Pacific**
- Rake, Judith. "From the trenches: literacy recommendations for the next century." *Illinois Libraries* 81, no. 3 (Sep. 1999): 152 - 154. **National campaigns - US**
- "Reading literacy in the United States: findings from the IEA reading literacy study." National Center for Education Statistics, 1996. (<http://nces.ed.gov/pubs/96528.html>) **General - US**
- Rodriguez, Jill, and Maria Tejada. "Serving Hispanics through family literacy: one family at a time." *Illinois Libraries* 75 (Fall 1993), 331 - 332. **Family literacy - US**
- Rupp - Serrano, Karen. "Workplace literacy: a selected bibliography." *Reference Services Review* 21, no. 1 (1993): 79 - 91. **Workplace literacy - US**
- Rustam, Rohani. "Dewan Bahasa Dan Pustaka and the promotion of literacy and reading in Malaysia." *International Association of School Librarianship: Proceedings of the 18th Annual Conference* (1990): 428 - 439. **General - Malaysia**
- Rustam, Rohani. "Promoting literacy and reading in Malaysia." *Information Development* 6 (July 1990): 150 - 153. **General - Malaysia**
- "S&S launches literacy at work program." *Publishers Weekly* (Nov. 16, 1990): 10. **Workplace literacy - US**
- Sanders, Joan. "Share a book ... at home." *North Carolina Libraries* 54 (Fall 1996): 122. **Access to books - US**
- Scott, Peggy. "Youth education literacy and learning - YELL." *Missouri Library World* 3, no. 4 (Fall 1998): 30 - 32. **Funding of literacy, partnerships - US**
- Scott, Sue. "Developing training guidelines for literacy services in public libraries." *Link - up* (Sep. 1995): 17. **Guidelines for literacy services**
- Scott, Sue. "Literacy response." *Link - up* (Dec. 1996): 11 - 12. **Role of libraries in literacy**
- Sharma, Shobha. "Promotion of reading and literacy: the India experience." *International Association of School Librarianship: Proceedings of the 18th Annual Conference* (1990): 477 - 493. **General - India**
- Singh, Sandra. "Literacy planning, evaluation, and programming." *Feliciter* 43, no. 9 (Sep. 1997): 32 - 39. **General, Evaluation**
- "Six library projects cited as literacy program models." *American Libraries* (July/Aug. 1991): 682 - 683. **Family literacy - US**
- Small, Sandy. "Summer start: an off - site adult literacy program in a classroom setting." *Florida Libraries* 36, no. 9 (Nov. 1993): 178 - 179. **Role of libraries in literacy - US**
- Southcombe, Dianne. "Reading works FB! RIF, UK award to the Florence Brown School, Bristol." *School Librarian* 46, no. 3 (Autumn 1998): 122. **Access to books - RIF Program - UK**
- Stoffle, Carla J. "Literacy 101 for the digital age." *American Libraries* (Dec. 1998): 46 - 48. **Information literacy - US**
- Strong, Gary E. "A life in literacy." *American Libraries* (Dec. 1998): 36 - 39. **Government and literacy, Role of libraries in literacy - US**
- Stuchbery, Ann. "Mobilising family literacy." *Link - up* (Dec. 1996): 13 - 16. **Family literacy - Australia**
- Sumerford, Steve. "Creating a community of readers to fight functional illiteracy." *American Libraries* (May 1997): 44 - 48. **Funding, Role of libraries in literacy - US**
- Swaffield, Laura. "Literacy work strengthens links." *Library Association Record* 100, no. 10 (Oct. 1998): 530. **Family literacy - school libraries - UK**
- Talan, Carole. "Family literacy and parenting education." *California State Library Foundation Bulletin* no. 58 (Jan. 1997): 20 - 22. **Family literacy - US**
- Talan, Carole. "Family literacy makes sense: families that read together suc-

- ceed together." *The Bottom Line*. 3/4 (Winter/Spring 1994): 46 - 51. **Family literacy - US**
- Talan, Carole. "Family literacy: libraries doing what libraries do best." *Wilson Library Bulletin* (Nov. 1990): 30 - 32, 158. **Family literacy - US**
- Talan, Carole. "Real - life empowerment through family - centered literacy." *American Libraries* (Dec. 1998): 49 - 51. **Family literacy - US**
- Tate, Thelma H. "Moving information systems and the implementation of the UNESCO public library manifesto." *Rural libraries* 16, no. 1 (1996): 48 - 54. **General, Guidelines for literacy**
- Tilke, Anthony. "Youth matters." *Library Association Record* 100, no. 2 (Feb. 1998): 72. **Role of libraries in literacy - UK**
- Timms, Jonathan. "African books on the shelves." *Library Association Record* 98, no. 10 (Oct. 1996): 530 - 531. **Access to books - UK and Africa**
- "Using all the intelligences in literacy training: California State Library - literacy fund project nears completion." *California State Library Foundation Bulletin* no. 44 (July 1993): 35 - 37. **Role of libraries in literacy, literacy training - US**
- Vogler, Jean. "L'Illettrisme en France." *Bulletin des bibliothèques de France* 45, no. 5 (1998): 13 - 16. **General - France**
- "Welcome to the national assessment of adult literacy 2002 home page!" National Center for Education Statistics, 2000. (<http://nces.ed.gov/naal/>) **General - US**
- "World Book Day celebrated in England." *International Leads* 12, no. 2 (June 1998): 6. **International campaigns - World Book Day**
- "World Book Day: from Bedworth to Bangkok." *Library Association Record* 101, no. 6 (June 1999): 324. **International campaigns - World Book Day**
- "World Book Day: the day the book grew wings." *Library Association Record* 100, no. 5 (May 1998): 233. **International campaigns - World Book Day**
- Young, Christina Carr. "Libraries and literacy." In *Libraries and information services today* (Chicago: ALA, 1991): 162 - 170. **Role of libraries in literacy - US**
- Zapata, Maria Elena. "The Role of public libraries in literacy education." *Libri* 44(1994): 123 - 129. **Role of libraries in literacy - general**