

# NATIONAL LIBRARIES AND THE DIGITAL DIVIDE

## INTRODUCTION TO THE PANEL DISCUSSION

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## INTRODUCTION

Not too long ago, there was much discussion in the literature about the “information gap”, or the gap between the “information rich” and the “information poor” (Holderness, 1996; Quinion 2003). Although the term is still in current use, attention has shifted to the “digital divide”. The digital divide is a “hot” topic. A great deal is being said and written about it. Conferences and seminars are held on it and – regardless of whether people on the other side of the divide can access them – web sites have been set up to deal with the digital divide (e.g. Bridges, 2002; Digital divide network, 2002; Digital opportunity channel, 2003; DigitalDivide.org, 2003) Librarians are also taking it seriously. At the 2002 conference of the International Federation of Library Associations and Institutions (IFLA) in Glasgow, the President-Elect of that body, Kay Raseroka, organised a brainstorming session on “bridging the digital divide” to identify widely supported strategic priorities for IFLA (Parker, 2003). As suggested by the title of this workshop, the concern is mostly with “bridging” the digital divide or “narrowing” it (Paul, 2002), although the conference booklet for a recent conference in South Africa bore the title “Damn the digital divide” (2001).

This paper does not attempt a scholarly exposition of the digital divide in general. It is concerned with the role of national libraries in respect of this phenomenon. In approaching this topic it is necessary to consider briefly what a national library is and which roles it can play nationally. We also need to analyse the concept of the “digital divide” into a number of dimensions before we can attempt to identify possible roles for the national library in dealing with it.

## NATIONAL LIBRARIES

National libraries vary widely in their origins and functions. In one or another form they are found in more than a hundred countries. In the UNESCO *Guidelines for legislation for national library services*, a national library is defined as

an institution, primarily funded (directly or indirectly) by the state, which is responsible for comprehensively collecting, bibliographically recording, preserving and making available the documentary heritage (primarily published materials of all types) emanating from or relating to its country; and which furthers the effective and efficient functioning of the country’s libraries through the management of nationally significant collections, the provision of an infrastructure, the coordination of activities in the country’s library and information system, international liaison, and the exercise of leadership. These responsibilities are formally recognised, usually in law (Lor 1997a:7).

The origins of national libraries are closely linked to those of legal deposit and the acquisitions of bibliophile monarchs and wealthy individuals, but over time a range of

national library types emerged. At the risk of oversimplification three main national library orientations can be distinguished.

The older national libraries, such as those that evolved from European royal libraries, are characterised by an emphasis on the nation's documentary heritage, the management and preservation and exploitation of rich collections of old, rare and valuable materials ('treasures') and service to learned scholars and researchers.

A second group arose in the 19<sup>th</sup> and 20<sup>th</sup> centuries in response to nationalistic and modernising movements (e.g. South Africa, Thailand, Venezuela). They place emphasis on the development of a national infrastructure (e.g. national bibliographies, national union catalogues, national interlibrary lending schemes) to support the work of the nation's libraries and information agencies. Today most national libraries in the developed world combine the characteristics of these two orientations.

A third group arose in developing countries (e.g. Namibia, Papua-New Guinea), where the national library is often called a 'national library service'. These aim to offer services to the general population through a network of public libraries, school libraries and other (e.g. hospital and prison) libraries, much as a metropolitan or county public library service would in a developed country.

In the *Guidelines* three national library "orientations" are described (par. 1.3.1, pp. 5-7) which correspond roughly with the above three groups. The orientations can be summarised as follows:

*Heritage:* Learned scholars and researchers are the primary clients. The strategic emphasis is on collections.

*Infrastructure:* The primary clients are other libraries. The strategic emphasis is on national leadership.

*Comprehensive national service:* The primary clients are the people. The strategic emphasis is on service delivery to end users.

Most national libraries experience a tension between the functional demands of two or more of these orientations, which imply diverse client groups. It must be borne in mind that the orientations are not mutually exclusive.

## **THE DIGITAL DIVIDE: DEFINITIONS**

The term "digital divide" is said to have been coined a decade ago by a former United States Assistant Secretary for Commerce for Telecommunications and Communication, Larry Irving, Jr, to focus attention on "the *existing gap in access to information services* between those who can afford to purchase the computer hardware and software necessary to participate in the global information network, and low-income families and communities that cannot" (Dragulanescu, 2002:139). Over time, the scope of the concept has expanded. The American Library Association's Office for Information Technology Policy defines the digital divide as

Differences due to geography, race, economic status, gender and physical ability

- in access to information through the Internet, and other information technologies and services
- in the skills, knowledge, and abilities to use information, the Internet and other technologies (ALA 2002).

The ALA's definition is appropriate when the emphasis is on disparities between groups and individuals in one country. However, the term "digital divide" has come also to refer to disparities between societies and nations:

The phrase "digital divide" refers to the unequal and disproportionate pace of development in societies in having access to digital infrastructure and services (Paul, 2002:13).

Not surprisingly the term has come to refer especially to the gap between developed and developing nations (Mutula, 2002). Hence the digital divide relates to disparities between countries (Naughton, 2001; Paul, 2002), communities within countries, such as economically disadvantaged groups or ethnic and linguistic minorities (Dorr & Akeroyd 2002; Worcman, 2002), and individuals on the basis of gender, income and other demographic variables:

Current access to the Internet runs along the fault lines of national societies, dividing educated from illiterate, men from women, rich from poor, young from old, urban from rural (UNDP, 1999:62).

## **DIMENSIONS OF THE DIGITAL DIVIDE**

To be able to get to grips with the digital divide, we need to first problematise the term. As suggested earlier, the last decade has seen a shift from the notion of an information gap to that of a digital divide. The word "divide" suggests a significant barrier, one on a massive scale and hard to shift, as in "continental divide" or "great divide". What started as a "gap" seems to have become larger. The word "digital", on the other hand, appears to narrow the gap down to a technological problem. The technological dimension of the digital divide is emphasised in much of the literature and in most discussions of the digital divide issues of hardware, technical infrastructure and connectivity loom large. But these are not the only dimensions of the digital divide.

To be able to identify possible roles for national libraries, we need to clarify the dimensions of the concept "digital divide". The "eight Cs of success in the Internet economy" formulated by Rao (2000), provide a classification that is strongly orientated to technological and economic dimensions. They are:

- Connectivity (access to PCs, telephone lines, Internet connections, etc.)
- Content (number of web sites in the country, local relevance of content, languages, etc.)
- Community (inclusiveness in respect of sections of the community)
- Commerce (e.g. development of infrastructure for e-commerce)
- Capacity (of the workforce, capacity to harness the Internet, development of cyberlaw)
- Culture (government attitudes to telecommunications, Internet awareness of decision makers and bureaucrats, business culture, entrepreneurial culture)
- Cooperation (between government, the private sector, academia, civil society, etc., locally, nationally and regionally)
- Capital (investment climates hospitable to economically self-sustaining Internet initiatives)

It is suggested that the following dimensions, which modify and add to Rao's eight Cs, can be identified on the basis of barriers and their effects as described in the literature (Bridges, 2002; Chandra, 2002; Dragulanescu, 2002; Fahmi, 2002, Goswami, 2002, Kagan, 2002; Kargbo, 2002; Mutula, 2002; Orji, 2002; Paul, 2002; Rao, 2000; Singh, 2002, Worcman, 2002). Unfortunately they do not all start with the letter C:

*Connectivity:* Not only the telecommunications infrastructure and teledensity but also availability of state-of-the-art (or almost) workstations, peripheral equipment and software. A good computer environment, free from excessive heat, dust and humidity. Access to these by the general population, not merely an urban elite. Appropriate technology for rural and disadvantaged communities.

*Capacity:* Sufficient trained IT professionals to install and maintain hardware, software and networks. Professional information workers who are able to interpret, provide insight, motivate and train users. Education and professional associations of IT and library/information professionals. Professional networking and willingness to cooperate. Brain drain a problem.

*Content:* Content not only from the developed countries but also from the country itself and communities, in vernacular languages, relevant to national and local issues and concerns. Quality of content. Indigenous directories, portals and search engines. Advertising revenue. Revenue-generating third-party services.

*Community:* Clients and potential clients, client base depends on literacy rate and level of education. Access to resources for minorities and disadvantaged groups, including rural communities, women, children, the elderly, persons with disabilities, the unemployed, the rural and urban poor. Inclusiveness.

*Finance:* Capital for investment in infrastructure and implementation. Ongoing revenue for sustainability of systems and projects: maintenance, upgrading of systems, licence fees, personnel, etc.

*Business environment:* Business culture, adaptability, entrepreneurial spirit.

*Legal/regulatory environment:* Legislation and regulatory bodies impacting on telecommunications, the flow of content (censorship, intellectual property, privacy, etc.), e-commerce, availability of foreign currency, import duties and tariff barriers, flow of funds between levels of government, budgetary constraints (e.g. roll-overs), tender procedures, competition (monopolies, etc.), non-governmental organisations, inter-institutional co-operation, etc.

*Policy framework:* National information policy/policies. Policies on education, IT, knowledge society, e-government, technology transfer, rural development, culture, language, literacy and libraries. Articulation of such policies with national development plans, etc.

*Moral/ethical framework:* Issues of information sovereignty versus information, media and cultural hegemony of the powerful Western industrialised nations. Use of economic power to force principles of market capitalism on small economies. Democratisation, tolerance of diversity, inclusiveness and transparency.

## **POSSIBLE ROLES FOR NATIONAL LIBRARIES**

What national libraries can and will do to help narrow the digital divide will depend on factors such as their primary orientation (heritage, infrastructure or comprehensive national service), their resources, and their position and influence in the national system of library and information services. The following is an attempt to identify possible national library roles relating to the nine dimensions of the digital divide outlined above.

## **CONNECTIVITY**

It is unlikely that a national library in a developing country would have the resources to provide the telecommunications infrastructure and systems needed to provide Internet access to the general population, other than in the form of providing some hardware and software for demonstration or pilot projects. This is a task for larger players such as the national telecommunications company or companies, national ministries (education, communications, rural development), and major foreign partners. A national library in a developed country would not need to provide the infrastructure for connectivity, since it would be in existence anyway.

A national library tasked with providing a comprehensive national service would need to provide at least technical support (e.g. assistance with systems implementation and a help desk) for its public library branches.

A national library emphasising the infrastructure orientation could play a useful leadership role in respect of standardisation and providing specifications for suitable workstations and software. In some cases the national library might develop or commission certain types of software, for example systems for bibliographic networking and resource sharing.

## **CAPACITY**

National libraries in most developing countries experience an acute shortage of IT staff and are unlikely to be able to make a national contribution in this respect. Even national libraries in more developed countries are not always in a position to attract and retain highly skilled IT staff. However, national libraries that are able to access resources such as grant funding may make a useful contribution to research and development (for example, in respect of electronic legal deposit and the preservation of born-digital documents). Such activity provides training opportunities and can help to build national expertise.

## **CONTENT**

This is an area in which national libraries can make a major contribution, the main thrust of which would be to add to the critical mass of national content available on the web. A basic way to do this would be to make the national library's online public access catalogue (OPAC) available on the web, thereby giving bibliographic access to its collections and also to the national bibliography, periodicals index and other databases.

A further and more significant step is to provide digitised full-text content through digitisation programmes focussing on the national heritage: manuscripts of historical importance, early printed works, maps, photographs, sound recordings, motion pictures, etc. National libraries in developed countries are already doing this on a large scale. Probably the best known example is the American Memory project of the United States Library of Congress, which comprises more than seven million "digital items" from over 100 historical collections (United States. Library of Congress. 2003). Many more national libraries are digitising specialised items or collections. In many cases "treasures", selected on account of their particular beauty, rarity or interest, are displayed on the world-wide web as "virtual exhibitions", for example, *Treasures from Europe's National Libraries* (Treasures... 2003). Priority is often given to materials which are (a) fragile, since digitisation reduces pressure for access to the originals, and (b) in the public domain, since obtaining permission for the digitisation of copyrighted works is very time-consuming. This is a highly appropriate activity for national libraries emphasising the heritage orientation.

A further role for national libraries is that of providing national portals to digital information resources, with particular emphasis on information relevant to their countries. If the resources are carefully evaluated, selected and organised, such portals can add a great

deal of value by seamlessly integrating rapid and powerful access to a huge range of resources, in effect creating a virtual library (Jackson, 2002). In Europe work is under way to do this on a continent-wide basis (Brindley, 2001).

Once we bridge the digital divide, which way will the information flow? Will the flow be only from North-South, reinforcing the cultural and media dominance of the industrialised, western countries? In the developing world, national libraries have a particular responsibility to add to the digital content on the Internet, to ensure that indigenous languages (cf Thomsen, 2002), cultures and concerns are reflected there. But in developing countries, with limited resources, projects have to be selective. The selection of material for digitisation should be keyed to cultural, heritage and nation-building objectives and school curricula, and could include documents now held by former colonial powers. Another category of material to be considered for digitisation in developing countries is legislation and government information.

It is also suggested that national libraries can add to local content by recording, documenting and digitising oral history and indigenous knowledge (Mutula, 2002). Oral history is of course not uniquely important in developing countries. Recently much emphasis has been placed on indigenous knowledge, both in developing countries and in developed countries with populations of "first nations". Indigenous knowledge is local knowledge, unique to every culture or society, where it forms the basis for local decision making and problem solving in agriculture, health care, food preparation, education, and many other activities. As tacit knowledge embedded in community practices, institutions and rituals, it is difficult to codify and organise (World Bank 2002). It has been suggested that indigenous knowledge could be made subject to legal deposit (Lor 2002). National libraries should play a role in the preservation, accessibility and appreciation of indigenous knowledge, a national treasure which has for far too long been overlooked and undervalued.

To add to the complexity of the above tasks, the national library should not neglect the country's electronic heritage of born-digital material. More and more journals are now being published electronically. The National Library needs to collect these and ensure that they do not disappear from the Internet after a few years. Even more widespread and worrying are web sites. Web sites are an important reflection of national politics and culture, but they are very ephemeral. Already much of this material has been lost, both in developed and developing countries.

## **COMMUNITY**

National libraries have a responsibility to see to it that their services reflect the needs of the full spectrum of their society. This means that the content provided in digitised form should as far as possible be in all the country's languages, and should be relevant to minorities and disadvantaged groups, including the illiterate and newly literate.

In some countries library services to the blind or visually challenged are provided by the national library. New digital technology may open more opportunities for users with disabilities, but to provide these opportunities will require the national library to make an investment in specialised hardware and software.

In some countries the national library may be tasked with promoting literacy or information literacy, for example by collecting, evaluating and making available literacy materials and reading matter for the newly literate, developing, piloting and coordinating literacy programmes, promoting indigenous writing and publishing, coordinating book development policy, and promoting information literacy. Not all of these activities are directly relevant to the digital divide, but it has to be borne in mind that illiteracy is one of the greatest obstacles to participation in the knowledge society.

## ***FINANCE***

Rare indeed is the national librarian who has enough money to spend, let alone has any to spare. But in many cases national libraries have the capacity and expertise to provide leadership to a group of libraries in putting forward a grant proposal to a foundation or foreign donor. The national library may also play an advocacy role, helping to persuade government to make more funding available to the country's libraries and information services. This will depend on the status of the national librarian and on how the national library relates to organs of state.

## ***BUSINESS ENVIRONMENT***

National libraries do not appear to have a particular role to play here. However, they need to be attuned to the business environment of their countries, if only to be able to provide appropriate services to the private sector.

## ***LEGAL/REGULATORY ENVIRONMENT***

The national library may be able to play an advocacy role, coordinating inputs from the country's other libraries and putting forward well-motivated proposals for appropriate adjustments to laws and regulations. Relevant areas would include taxation, trade barriers, telecommunications tariffs and intellectual property.

## ***POLICY FRAMEWORK***

The national library should play an advocacy role, as above. Furthermore the national library should play a leadership role in engaging the country's library professionals to participate in national information/knowledge society debates and initiatives. In many developing countries public information agencies utilising modern ICTs, such as information kiosks, "telecentres" (IDRC, 1999), "multipurpose community centres" (Modjadji, 2001) and "digital villages" (Africare, 2000) are being set, without the involvement of librarians, who could have made a useful contribution. This leads not only to the marginalisation of libraries, but also to costly duplication of effort and – not infrequently – to failure. Libraries should be central to the information/knowledge society. The national library needs to take the lead to make sure that libraries in their countries do not miss golden opportunities to help bridge the digital divide.

## ***MORAL/ETHICAL FRAMEWORK***

The national library should play an advocacy role, as above. It should provide national leadership in the promotion and defence of freedom of access to information and freedom of expression. In its delivery of services to its clients and in its management, especially the management of its human resources, the national library should set an example by applying sound democratic and ethical principles.

## ***CONCLUSION***

National libraries, like other institutions, are affected by the digital divide in various ways. This is particularly obvious in the poorer developing countries. Nowhere is it likely that national libraries can make a huge impact on the digital divide. They lack the resources and expertise to deal with all the dimensions outlined above. Nevertheless we have identified some areas where national libraries can make a useful contribution. National librarians should consider their institution's strengths and weaknesses vis-à-vis the digital divide and select the actions which will have maximum impact with the available resources.

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