

# Electronic Information Resources in the Caribbean: Trends and Issues



Proceedings of the ACURIL XXXIV Conference  
held in Trinidad and Tobago  
May 23 - 29, 2004

Edited by  
Shamin Renwick & Jaishree Kochhar



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## Foreword

The Association of Caribbean University, Research and Institutional Libraries (ACURIL) was established in 1969. It is a diverse, multi-lingual association bringing together information professionals from the English, Dutch, French and Spanish-speaking Caribbean region to share professional experiences in support of a broad spectrum of intellectual and educational endeavours.

ACURIL conferences are held annually and usually in a different Caribbean country from year to year. This conference was the XXXIV Annual ACURIL Conference and was held at the Hilton Trinidad and Conference Centre, Port-of-Spain, Trinidad and Tobago on May 23-29, 2004.

The conference theme, which generally addresses issues of relevance to Caribbean librarians, was "Electronic Information Resources in the Caribbean: Trends and Issues". This theme was chosen as, in recent years, there has been a considerable amount of time and energy expended on acquiring, organizing and providing access to electronic information resources. These issues are often complicated and bewildering. An exploration of the challenges and issues in this dynamic area, it was felt, would equip information professionals to effectively manage these resources and deliver them for their clients benefit.

The *sub-themes* identified for discussion were as follows:

- Electronic Information Resources in the Caribbean: Trends and Issues/ challenges and opportunities – digital divide, consortia
- Collection Management issues related to electronic information resources
- Automation in Libraries
- Professional Development/ Networking in an electronic environment

It was hoped that the conference was opportunity to highlight the trends which are shaping the information environment in which we work and the issues which we must face if we are to provide effective service in the current information environment.

Approximately, four hundred (400) participants representing thirty-one (31) countries attended. There were twenty-seven (27) presentations with twenty-one (21) complete papers, ten (10) workshops and nine (9) posters. Seven (7) Special Interest Groups (SIG) had both meetings and workshops over two (2) afternoons. For the first time, the Students Roundtable convened with a meeting and workshop. The latter activity as well as the SIGs provided an additional ten (10) presentations at the conference.

Section 1, 2 and 3 of this document contain the papers (full-text and abstracts), workshops abstracts and poster abstracts, respectively. These are presented in the language in which they were submitted. Section 4 contains the speeches presented at the Opening and Closing Ceremonies. These include the Feature Address by Dr. Lenny Saith, Minister of Public Administration and Information, Government of Trinidad and Tobago (T&T), remarks by Shamin Renwick, ACURIL President 2004 – 2005, Professor Gurmohan Kochhar, Deputy Principal, The University of the West Indies (UWI, T&T) and Mrs. Ernesta Greenidge, President, Library Association of Trinidad and Tobago (LATT), as well as the vote of thanks by Dr. Margaret Rouse-Jones, University Librarian, UWI. The inaugural address by the

incoming ACURIL President, Mme. Anique Sylvestre at the Closing Ceremony is also included.

The CD-ROM accompanying this document is an almost complete reflection of the conference. Apart from the formal papers and abstracts, also included are the PowerPoint presentations, information about ACURIL, conference documents, evaluation reports, special interest group reports and photos taken at the conference. Also included are photos and programme from the ACURIL/IFLA Preservation and Conservation Preconference 2004 held on May 21-22, 2005 at the National Library Building, Port-of-Spain, Trinidad and Tobago (Theme: Mitigating the Consequences of Natural Disasters in Caribbean Libraries and Archives). Photos were taken by Nolan Craigwell (Campus Libraries, UWI, T&T), Phillip Fredericks (T&T) and several participants. In the CD-ROM, documents are presented in the language versions that were available at the time of the conference.

We wish to acknowledge the work of the ACURIL 2004 Local Organising Committee, the ACURIL 2004 Programme Committee and the ACURIL Secretariat. We are grateful for the support of the three local hosting organisations – The University of the West Indies, The National Library and Information System Authority of Trinidad and Tobago and the Library Association of Trinidad and Tobago. With regards to the publishing of these proceedings, in particular, we thank Mrs. Camille Dalrymple for Secretarial assistance, Mr. Daren Dhoray for designing the cover of the document and CD-ROM, Mr. Marlon Sampson for preparing the CD-ROMs, Mr. Kelvin Rampaul of MPC Printers as well as the UWI Research and Publication Fund for majority funding.

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(2003-2004)

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# **SECTION 1**

## **PAPERS**



# Lightning Rod or Seismograph? The Acid Test for Librarians

Derek Law

University of Strathclyde, Glasgow, UK

*Explores issues surrounding the development of the global information society and how far as a profession we can shape the future rather than just record and manage what has already happened. The paper takes an optimistic view emphasising our roles in organisations which are producers and not just consumers of information and asserting that our professional skills, although in need of review and re-presentation, remain of critical value to the development of an information society. This is as true of digital libraries as paper libraries. Electronic information resources offer rich opportunities for developing countries both to access the wide set of readily available resources and to contribute to a truly global information partnership.*

*While the "entry costs" for electronic information are still undeniably there, they are much lower than has historically been the case. International library co-operation is a huge but unsung success story. We did it once with paper and we can do it again!*

## Introduction

When the invitation to talk at the ACURIL 2004 Conference arrived I was absorbed in reading Tom Wolfe's *The Electric Kool-Aid Acid Test*, his biography of Ken Kesey, author of *One Flew Over the Cuckoo's Nest* and central to the development of the hippie movement in 1960's San Francisco and beyond. The book is about a man who believed in new ways of seeing, of opening up to new experiences and of being a conduit for change. He summed this up in the memorable phrase "I'd rather be a lightning rod than a seismograph"<sup>1</sup>. The seismograph is a passive recording instrument, but the lightning rod channels powerful external forces and is a real participant in making change less dangerous. This seemed to me a powerful metaphor for at least my vision of the future of libraries. I contend that we can shape the future rather than just record and manage what has already happened. I believe that we must work to persuade our organisations that we are producers and not just consumers of information and that in making that argument we will assert that our professional skills, although in need of review and re-presentation, remain of critical value to the development of an information society. This is as true of digital libraries as paper libraries.

The history of librarianship over the last hundred years is one of quite astonishing and growing internationalisation and co-operation, of the development of practices and standards which we take for granted but which I believe is a triumph of professionalism. But let us return one hundred years to 1904 and the position of libraries. The Victorian era was newly passed, but three great figures had dominated libraries and the first stirrings of co-operation. In the mid-nineteenth century Sir Anthony Panizzi<sup>2</sup> dominated the British Museum Library,

developed the first modern cataloguing code and designed the famed Round Reading Room. The concept of the Universal Library was the one he espoused, but his librarianship and its influence was undeniably modern as the building plans he submitted showed in 1852. The Father of Modern Librarianship had been born the year before in 1851. Melville Dewey invented the Dewey Decimal Classification (DDC) system when he was 21 and working as a student assistant in the library of Amherst College. One hundred years ago his career was in its pomp and he was Director of the State Library of New York.<sup>3</sup> In 1904 my third great figure, the 69-year-old Andrew Carnegie<sup>4</sup> was already almost twenty years into his programme of building 2500 public libraries. Through the establishment of free public libraries he wanted to make available to everyone a means of self-education.

In 1904 a story of international co-operation began which though probably untrue is *ben trovato* and it is used to explain why in the catalogue of the library of the University of Edinburgh with great precision some books are described as lost while others are described as missing. In 1904 the Imperial Court at St. Petersburg requested the loan of a book from Edinburgh University. It was duly loaded on to a steamer sailing from Leith to the Baltic and arrived safely three months later. In 1915, the University of Edinburgh noted both that the book had not been returned and that the political situation in Russia gave some cause for concern and so the book was recalled. Within a further six months the book was carefully parcelled and loaded on a Swedish freighter sailing from Petersburg. Regrettably, as the freighter left the Gulf of Finland it was sighted and torpedoed by a U-boat. As the

cataloguing staff at Edinburgh then note the book is missing but not lost for they know exactly where it is. It lies in latitude 59°26'N and longitude 24°46'E in a steel safe in the forward hold in 27 fathoms of water.

If this little fable of co-operation is not exactly true, it does make the point that the twentieth century has been the century of library co-operation. Certainly over the last fifty years we have developed under the auspices of IFLA's UAP (Universal Availability of Publications) and UBC (Universal Bibliographic Control) a system of co-operation of astonishing power. Coupled with the development of the MARC standard and AACR cataloguing codes it is broadly true that any library user can go into any library, identify any book or journal article published in the last fifty years or so, fill in a request form, and expect the item to turn up in a few weeks. Just as amazingly when an ILL form arrives in my library requesting an item, I will cheerfully send it to Venezuela or Cambodia, in the firm expectation that it will be sent back. And it always is. And yet there is no self-evident reason why the National Library of Medicine should co-operate with the Johannesburg Public Library; or why the University of the West Indies should co-operate with a Russian School library. Yet as a profession we have done this: we have built the systems; we have developed the standards; we have learned to place trust in the professionalism of our peer group. And now we have moved to a new set of standards based around the Dublin Core, again developed by librarians. We have begun to work on metadata, which in truth is little but cataloguing in its Sunday best. We are already facing the challenges of the electronic world, but we should do so with confidence. This long preamble is intended to demonstrate that we have a near unique track record of success in delivering international success. We have done it once and we can do it again.

### **Professional skills**

Our skills can broadly be divided into three groups covering selection, storage and support for users. In each of these areas I believe that we can refocus those skills – old wine in new bottles – to ensure their relevance.

#### *Selection*

It has long been the case that one of the most critical but undervalued professional skills is that of content selection and collection building. One of the key roles of the librarian is to act as a relevance filter. We hear constantly that the web is overloaded with information and everyone is familiar with the Google search

which produces several hundred thousand hits. What we tend to forget is that the web contains a limited subset of information, a random and incoherent subset, whilst a library contains a managed subset of information relevant to the purposes of the organisation. There is in logic no reason why we should not be able to create managed subsets of information relevant to our organisations. Law's First Law<sup>5</sup> states that good information systems will drive out bad. We have all become familiar with the Internet's messages of failure: 404 error messages; system busy messages; the refresh button; the joke that an image may be worth a thousand words – unless it is a jpeg file downloading from the web. What is lacking from the web are the quite fundamental attributes of quality assurance and reliable accessibility. I believe that we can provide that quality assurance and assured access through customised information portals. We can also work in much more obvious and apparently banal areas as consortial purchasing and resource sharing. Again one should not assume this to be the prerogative of rich institutions. One of my roles is as President of eIFL<sup>6</sup> (electronic Information For Libraries). eIFL has successfully sought to create consortia in countries as varied as Kazakhstan, Peru and Senegal. Our common theme is that while no single consortium has the buying power to make a large difference to pricing, together our forty-four consortia can create good deals. We can and do also look at projects, at shared training, at workshops and at advocacy in favour of the world's poorer nations. We work with HINARI, AGORA and INASP to try to create a set of affordable and/or accessible information for countries in transition. Nor do we focus only on commercially available datasets. It is just as important that the rich variety of resources available free on the web are properly managed so that our users can be secure in the knowledge that quality is guaranteed and support and training provided.

#### *Storage*

One of the areas in which we are deficient is in the technology for the preservation of collections. There is no quality assurance standard for repositories. In the paper world if one gives a book to a legal deposit library we can be fairly sure of what the library will do with it – essentially to keep it and store it and preserve it into the indefinite future. We also know that paper is capable of surviving for over one thousand years. How different the electronic world. We have no real equivalent of legal deposit libraries in our computer centres and the recent history of computing does little

to convince one of the longevity of electronically stored data. The CD-ROM is but the latest technology to have proved wanting in this respect with some disks having collapsed in less than twenty years<sup>7</sup>. This failure to have defined repository standards is I think a critical gap. Ironically, as in so many things one can see a potential solution in looking back to the experience of the past to develop thinking on the future. The Maori tradition is an oral one and they have developed a quite specific set of criteria to guide the selection of the keepers of that oral tradition<sup>8</sup>:

1. Receive the information with utmost accuracy
2. Store the information with integrity beyond doubt
3. Retrieve the information without amendment
4. Apply appropriate judgement in the use of the information
5. Pass the information on appropriately

These seem a perfect guide to the preservation requirements of tomorrow's e-collections.

#### *Open Access Initiative and Institutional Repositories*

There has been growing interest in regaining control of information production through what is generally known as OAI. This applies particularly but by no means uniquely to universities. We produce reports, articles, books and theses; increasingly we create born digital information; we have institutional publications, exam papers and courseware; we will increasingly digitise information to share as part of the global information economy. Some examples of this kind of digitisation are described below, but again the important point is that we have the ability to lead our organisations into the future. Even where organisations claim to be too poor or too small to undertake this kind of activity one can look to the sort of consortial sharing models that are so common in the profession.

Falling somewhere between selection and storage is the whole issue of electronic collection building. Isaac Newton famously remarked that his scientific advances were made because he stood on the shoulders of giants. In the same way we all absorb and use the library collections of the past. Now it is true that libraries continue to collect special collections and archives on paper, but I see no evidence that we are building any theoretical structure, any taxonomy or any experimental

practice on how to build the electronic collections of the future. And yet more and more of the records of the custom and practice of society are moving to electronic formats. But who is storing – or even experimenting with storing – the e-mail of great men and women, the electronic output of research machines, CAD-CAM designs from architects, digital images of local, national and international events. Yet to store these is relatively cheap, certainly in shared repositories. We know that we have the skills to manage such collections. Metadata is only cataloguing in its Sunday clothes. Every library represents a community and yet we are doing nothing to hold on to the records of our communities both big and small. I have no solution to this problem but can only Cassandra like say that it seems to me one of the greatest professional failures of our time.

#### *Support*

The whole issue of user support becomes even more critical as a future skill for librarians. Law's Second Law states "User friendly systems aren't". As soon as the shrink-wrap package declares that software or data is user friendly and has only an on-line manual, you know that a training course is required. I believe that developing our ability to train information users in information management skills will be a critical area of professional activity. We have to be seen as the cadre of people for whom this is a natural role. Much work has been done on this already. For example in United Kingdom (UK) Higher Education, the so-called "Seven Pillars" model has been developed<sup>9</sup>. Plutchak<sup>10</sup> has memorably described the new Google generation as "the satisfied inept", those people who believe that because an on-line search engine produces a result, that that is an adequate and relevant result. The whole issue of information literacy and how it is to be taught and transferred provides a critical test for us. A recent series of conferences has brought together librarians, educators and computer scientists to explore this issue.<sup>11</sup> What seems clear to me from the conferences is that while many librarians are active in this area and recognise its importance, there can be no assumption that it is automatically "our" turf. We have to seize the opportunity offered to be leaders in teaching information skills.

#### **The Production of Information**

As stated above, the failure to produce any structure for the building of electronic collections is a grave one. However there are some glimmers of hope. While my dire predictions relate to born digital collections, significant progress has been made in the



creation of digital libraries based on electronic surrogates of paper and in some case image banks. A key issue for me is to see the role of the organisations and indeed libraries as producers and not just consumers of information. I contend that we all have rich opportunities both to access the wide set of readily available resources and also contribute to a truly global information partnership. While the "entry costs" for electronic information are still undeniably there, they are much lower than has historically been the case. A few examples from the Glasgow Digital Library show what can be done, but these examples can be replicated in many countries and many digital libraries. UNESCO's *Memory of the World* Project has digitised materials on an international basis taking such crosscutting themes as the Slave Route and the Silk Route. Spain has also begun work on its colonial records working with Latin American countries. PAHO has worked on the wonderful SciELO project trying to preserve and encourage local scientists to publish in their native tongue. Across the world in South Korea attempts are also being made to encourage science in the local language and again to preserve it. Massachusetts Institute of Technology recently announced that all its courseware would be freely available on the Web. I believe it a fundamental mistake for librarians to put all of their efforts into bemoaning the cost of commercial publications, especially in science, and in constructing methods for mitigating or attacking those costs. We should be putting our effort into the conceptualisation, design, creation and preservation of the next generation of research collections. As a first principle and like the examples above we should reaffirm the principles of public good in libraries, that we can all contribute to the global set of information, in no matter how small a way and that we should make the information freely available to users irrespective of their ability to pay. Let me then conclude this section with a few examples from my own institutions digital library. Not because they are special or original or wonderful, but simply because I am familiar with them.

The Glasgow Digital Library was set up like many projects in an attempt to recreate and preserve what we seemed in danger of losing. Three examples demonstrate this. Firstly, the Red Clydeside collection. In the very early twentieth century in the shipyards of Glasgow we came close to a workers revolution and the overthrow of government – or at least so the government of the day believed as it saw the Russian Revolution taking place. In 1920 the tanks were on the streets of Glasgow to

suppress the workers. The destruction of this movement also led to the scattering of its records with no coherent collection anywhere recording this last great working class revolt in the UK. Worse, eighty years on, with the shipyards themselves almost having disappeared, there was no folk memory of this great historical event. The Glasgow Digital Library has been able to assemble a whole series of digital images of photographs, pamphlets, writings and ephemera to create for the first time a single entry point to the records of this important event.

Secondly, there is the Springburn collection. Springburn was one of the great centres of the Industrial Revolution with its fortune built on the building of steam engines. These huge machines were sent to China and India and to Latin America. As the railways declined, so did Springburn, until it is now the second poorest area in the United Kingdom. But it had a wonderful local library and museum which had a huge and much loved local photographic archive of life in Springburn from about 1870 to 1950. In a cost-saving exercise the museum and library were closed and the collections moved to the central library. Although still accessible there, in practice the local community now largely unemployed could not sensibly reach the collections. So we digitised a representative sample and this is now heavily used, allowing the community to stay in touch with its past.

My third and last example is called ASPECT. Five years ago the Scottish Parliament was restored after almost three hundred years of English rule. We decided to build a collection to record this historic event. Staff and their families and friends and relatives were asked to keep and collect every bit of paper, every election leaflet, every manifesto, every lobbying document from every constituency. We then digitised this as a collection for future historians. In practice it has already been a huge success and is already much used by press and public.

## Conclusion

It is claimed that an ancient Polish proverb states rather improbably that when the task is to eat an elephant, you should begin by taking the first bite. That is what we have tried to do. The problems may be too big and too complicated and too difficult for any one library to tackle. But that did not stop us creating the great edifices supporting document delivery.

So where does this all lead? I have suggested that we have traditional skills which with some

minimal repurposing are ideally suited to the information age; I have suggested that there are areas of opportunity in training, in information production and in developing institutional repositories. These neither require huge resources nor large teams of people. What they do require us to have is a settled will to harness and drive change, not just to wait for it to happen to us. Libraries began four thousand years ago in the Middle East with the Great Library of Ashurbanipal and its tablets of stone. Our profession has managed huge changes in media in the past and has developed and managed the organisation of knowledge and the services to deliver that knowledge. I am confident we can do so again. And I am also confident that we will do that through working together, through sharing and through a set of common professional values and ambitions.

I began this paper by quoting Ken Kesey. I'd like to close by quoting President George Maxwell Richards of Trinidad and Tobago<sup>12</sup>. Last weekend he spoke at the graduation ceremony at Caribbean Union College. In his address he said that Trinidadians must become

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# Closing the Digital Divide in the Caribbean: A Leadership Challenge

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*This paper discusses the challenges of closing the gap in access and control of Information and Communication Technologies (ICTs) in the Caribbean. It takes the view that the existing “digital divide” mirrors economic, social and political global realities and is not a phenomenon that can be explained in isolation. From this perspective, it makes recommendations for how engaged leadership at all levels can be mobilised to ensure that the digital gap is closed and that ICTs serve development needs. The paper argues that implementation of the transformative agenda, requires public leadership. However, since leadership of the ICTs and development agenda is too important to be left to a single stakeholder, governments must be made accountable to and seek the involvement of civil society including private sector, NGOs, professional associations such as ACURIL, academic and research institutions. The Caribbean region will not realise benefits of ICTs without improving the manner in which it engages with global ICT governance and diplomacy. The paper is optimistic that Caribbean citizens, in the region and the Diaspora will rise to these challenges.*

## Why is the Digital Divide relevant to the Caribbean?

This paper discusses the challenges of closing the gap in access and control of information and communication technologies in the Caribbean. It takes the view that the existing “digital divide” wherein there are significant differences in levels of access and usage across and within countries mirrors economic, social and political global realities and is not a phenomenon that can be explained in isolation. From this perspective, my recommendations suggest that leadership at all levels is required to ensure that this gap is closed and that these technologies serve development needs.

In the Caribbean context, the particular developmental challenges that must be addressed include:

- Poverty
- Unequal wealth distribution
- Unequal power relations
- Unfair international trading system
- Health pandemics and limited access to social services
- Illiteracy and access to education
- Environmental sustainability

## 1. What are ICTs?

Information and communication technologies (ICTs) are a range of in-formation and communication technologies and applications used for information sharing, networking and communication.

ICTs include telephones, mobile phones, computers, radio, TV, the Internet and other new digital media. ICTs are used as end products and as intermediates.

## 2. ICTs and Development

Access and control of ICTs can provide people with many developmental benefits including: increased access to markets and information about market opportunities; more flexible access to employment and incomes; reduced social isolation; increased confidence; easier access to information about legal protection and human rights; mechanisms for political organisation across social and national boundaries; improved access to government services including social welfare grants. However, the evidence from around the world suggests that there remains a problem in ensuring that the poor are provided with equitable access to ICTs.

## 3. What are the main challenges in closing the digital gap?

The rest of this paper analyses why we are failing to close this gap and sets out an agenda for change.

### North – South Divide

The distribution of wealth, knowledge, power and opportunity that are reflected in access and control of financial resources, trade and investment are mirrored in the ICT sector. Since the ICT sector is technologically intensive the concentration on research and development in wealthy countries also gives rise to a barrier to access to proprietary technological knowledge and inputs. The intellectual property regime and trade related rules for intellectual property have also resulted in increasing limits on public flow of information.

There is an on-going effort to transform fundamental principles and values in the ICT

sector so that these become more pro-poor and pro-development. However, the prevailing governance regimes are dominated by large multinationals and their client states.

Developing country governments often lack the political, financial and intellectual resources required to engage meaningfully in the policy-making agenda for the ICT sector.

#### *Income Divide*

Even when developing countries have made progress improving access, control and articulation of ICTs at a national level, their rural and urban poor communities are often not well serviced.

The majority of people in developing countries live in rural settings (for sub Saharan Africa 70.5%) and women make up the majority of rural populations. However, as a result of uninformed and uninspired public policy, these communities are often not well served by access to ICTs even when they can afford. There are often neither incentives nor regulations to prevent ICT network providers from designing networks that concentrate on providing connectivity to large corporates and wealthy households leaving persons in shantytowns and informal settlements without access.

#### *Gender Divide*

In many countries there is also an unacknowledged divide between the rate at which women and men are able to access and control ICTs. In developing countries, high incidence of female-headed households under the poverty line exacerbates lack of affordability. In addition, rural women's communications needs are not well understood and are not considered to be important enough to require specific interventions. There is also a lack of relevant information content in ICT applications. When women are not in control of their time and financial resources, even when public facilities are made available, they may face specific problems in gaining access to facilities and training opportunities. In those countries where governments have not implemented commitments to provide equal opportunities for education to girls and women, the levels of computer literacy among this group is far lower than that of boys and men.

There is some anecdotal evidence to suggest that in the Caribbean, the gender divide in access to ICT may be negatively affecting boys and young men.

#### **4. Why are we failing to align ICTs with development?**

If it is possible to identify these key challenges, then it should also be possible to formulate responses that meet them head-on. However, these solutions require a frank acknowledgement that these gaps will never be solved by relying only on market-orientated solutions.

While it may not have been popular to make this claim in a world that was infatuated with the Washington consensus, I trust that recent disaffection with globalization has improved the context for discussing pro-development public sector leadership.

The North-South, income and gender divides that characterize access and control of ICTs result from supply conditions that are market driven. The patterns of diffusion of ICTs illustrate a case of classic market failure where private benefits that accrue to the providers of ICT equipment and services greatly outweigh the social benefits.

The opportunity costs associated with this market failure and the absence of creative public sector leadership are tremendous. It means for example that developing countries such as the Caribbean are not benefiting from the cost savings that would result from intensive use of ICTs in the delivery of education and health services. It also means that the direction of ICT policy in the Caribbean is narrowly focused and does not attempt to increase the multiplier effects of lower prices and improved quality for the enterprise sector including cultural entrepreneurs. It also means that the opportunities to use ICTs to stimulate participatory government at all levels, including within local communities have not been seized.

The agenda for Caribbean ICT policy, such as it is appears to be a connectivity agenda rather than a developmental agenda. This is not surprising since the suppliers and client governments who set this agenda are likely to reap significant returns associated with projects that regard providing broadband connectivity to multinationals operating in the Caribbean, and ensuring that the elite have access to new generation mobile technology at outrageous prices as useful and beneficial.

#### *What Can Be Done?*

It is possible to transform ICT policy and implementation in the Caribbean toward a pro-poor and pro-development agenda. To make progress on this path, it will be necessary to avoid the latest fads of ICT policy that originate from well-meaning or self-interested outsiders. It

will be necessary for the Caribbean to develop homegrown strategies and to build the necessary intellectual, policy making and diplomatic capabilities needed to implement these strategies. The region should avoid strategies that focus on creating ICT enclaves (free trade zones by another name) and programmes that result in wider access to ICT equipment and services only for the elite

I suggest the following seven key components for this effort:

- Promote widespread use of ICT applications
- Facilitate local design and adaptation of relevant applications
- Participate in globalised production of ICT equipment and services
- Provide cost-effective ICT enabled social services (health, education, political participation, community management)
- Ensure greater participation in decision making in ICT governance
- Make public investment in the public interest
- Balance diverse interests

To implement this transformative agenda, it will be necessary for the Caribbean to define its public interest in the Digital age and this requires public leadership. However, leadership of the ICT and development agenda is too important to be left to a single stakeholder. Governments must be made accountable to and seek the involvement of civil society including private sector, NGOs, professional associations such as ACURIL, academic and research institutions. It is also likely that Caribbean governments will be successful if they are able to design and manage partnerships with the international community.

In summary, it is necessary for the Caribbean to design and implement an agenda for ICT and development built on a foundation of creative public sector leadership. This strategy should involve a programme of actions by

- Public decision makers
- Technology suppliers
- Financiers and donors

## **5. An Agenda for Caribbean Leadership in ICT for Development**

### *Public Sector*

The Caribbean region is a 'latecomer' to telecommunications liberalization and efforts to align ICT with development. Policy makers and

regulators should pay careful attention to avoid short-cuts and being seduced by maximisation of license fee revenues and tax payments. The long-term benefits of ICT will accrue by using this sector as a catalyst for broader growth and development.

Regulatory authorities should provide incentives to operating companies to encourage increased provision of ICTs in rural areas and to the urban poor through licensing, universal service funds, and other mechanisms. Appropriate arrangements should be put in place to facilitate development of community owned and run ICT facilities

Caribbean governments working with international partners should provide public access to ICT facilities, and in particular should explore community radio, multimedia centres and telecentres as means for promoting rapid access to ICT training and support of entrepreneurship.

As a matter of urgency, Caribbean governments, in partner-ship with regional development and research institutions should undertake a thorough evaluation and assessment of how the region can increase social and economic benefits of ICTs. The findings from this study should be widely disseminated and used to inform practice.

Governments should work in partnership with civil society and other stakeholders in the definition of the agenda and in its implementation.

### *Private Sector*

Technology and service providers should look beyond short term profit maximising. In this regard they should undertake investment in learning and capability development and improve their ability to innovate in rural applications.

Private sector companies should investigate and implement technology adaptation. If these firms were to develop applications that met the specific needs of the urban poor and rural women they would reap benefits of developing and growing a future market.

### *Financial Sector and International Community*

The international community including financial institutions, development banks and bilateral donors should reduce the fragmentation and poor allocation of funds in the ICT for development sector.

While there has been an increase in funding for ICT related projects, there has been a great deal

of duplication and many projects are only able to support small-scale pilots.

The financial community should evaluate and measure the social benefits of ICTs projects over a sufficiently long time horizon and should set requirements for targeting rural women and the urban poor when providing funding to national governments and NGOs.

#### *Civil Society*

Caribbean civil society, including research and academic institutions, professional bodies, NGOs, trade unions etc need to become much more actively involved in advocacy on ICT and development issues.

The library and information management community, including associations such as ACURIL and the national library associations can play an important leadership role in ICT public policy formulation and implementation.

The Caribbean has a mixed record in the extent to which governments engage in consultative and participatory policy design. Many still do not understand the positive contribution that the professional bodies can make and prefer to rely on external consultants. Caribbean civil society needs to be more pro-active and professional in their direct lobbying and strategic advocacy and to use every opportunity to demonstrate the value of their contextual understanding and experience. The key component of a forward looking advocacy strategy would be to focus on the extent to which Caribbean civil society can deliver on the public interest objectives.

In addition, public libraries, and national libraries in particular, are valuable test sites for experimentation with public access technologies and applications.

#### *Regional*

CARICOM has recognised the need to promote awareness of the benefits of ICT and should be supported to move more quickly into programme implementation.

The ICT for development agenda needs to capture the imagination, hearts and minds of Caribbean people. Without this breakthrough it is unlikely that ICT projects will move beyond the current status and the region will not reap potential benefits. We should develop flagship programmes that meet the following criteria: develop ICT research and training capability, provide links to knowledge and production networks; develop human resource base; involve civil society;

demonstrate benefits of active public sector; encourage private sector participation and stimulate and promote innovation. My short list of large-scale regional flagships would include:

- E-commerce/e-tourism projects for the ICC Cricket World Cup 2007
- Disaster preparedness and environmental awareness network
- Cultural entrepreneurship skills development projects
- Participatory e-government projects at community level
- Wireless access connectivity projects

#### *Engagement in the Global Arena*

The WSIS Declaration of Principles and Action Plan agreed in December 2003 take explicit account of the burden of structural inequality in access and control of ICTs and urge the international community to use access to ICTs to promote development, in particular to contribute to the achievement of the Millennium Development Goals (MDGs). The WSIS Declaration and Action Plan also recognised the specific needs and requirements of small island states, a result won through active lobbying and advocacy of the Pacific Islands.

There is also increased support for regional co-operation and multilateralism in solving the problems associated with the 'digital divide'. On the occasion of the World Summit, the European Union and the African Caribbean and Pacific States signed an accord which seeks to stimulate greater co-operation.

Development financial institutions such as the Inter American Development bank and bilateral donors have committed funds to various projects that aim to strengthen institutional capability in the ICT sector.

The United Nations and its specialised agencies including UN-DESA, ITU, UNESCO and UNDP are actively promoting and supporting ICT for development initiatives. The United Nations Conference on Trade and Development (UNCTAD) in its upcoming general congress UNCTAD XI will include a focus on the role of ICT in promoting trade and development.

The current chair of the United Nations Commission on Science and Technology for Development, Dr Arnaldo Ventura of Jamaica is a committed advocate for the articulation of Science and Technology with development and has a keen interest in stimulating ICT sector development in the region.



The United Nations ICT Task Force remains committed to catalyzing and supporting programmes in the region, including activities that aim to link the Caribbean non-resident Diaspora with their counterparts in the region. The Latin America and Caribbean regional network of the UNICT TF has a pro-development focus and will be intensively involved with promoting links between Caribbean island states and other sub-regions.

To take advantage of the increasingly propitious and accommodating international context requires the commitment of Caribbean political leadership and strategic effort from technical specialists and diplomats.

It is possible with committed and creative leadership to make best possible use of ICTs to solve Caribbean development challenges. Time is of the essence!

5.1. This paper has outlined a strategy for transformation of the Caribbean response to the challenges of the Digital Age. It has argued that there is no need for cognitive miserliness. We should neither rely on hackneyed slogans nor borrowed ideas. Rather, what is required is that we confidently draw on the innate creativity of Caribbean people to secure the benefits for ourselves and the generations to come.

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# Consortia: Models for Library Cooperation

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*Library consortia come in all sizes and types. Successful consortia are built around the needs and characteristics of their library memberships. The diversity among consortia includes membership composition, funding, governance structure, services and programs provided, and staffing. The speaker presents several different consortia models, their relevance to differing groups of libraries, and considerations in implementing and operating consortia. Emphasis will be on assessing member needs, designing services and programs and funding.*

“Alone we can do so little. Together we can do so much.” Helen Keller

Recent years have seen the extensive development of library consortia and networks. This growth in library consortia can be seen both in the creation of new cooperatives and in the further evolution of existing cooperative library organizations. These developments can be seen in a wide variety of consortia models, from state-based consortia in the United States, to country-based consortia in such diverse countries as Canada and Greece, to multi-national efforts such as the eIFL project sponsored by the Soros Foundation.

Today I will be talking about the development of consortia and consortia models. Specifically, I will address:

- What is a library consortium?
- Consortia models, including commonalities and variations
- Consortia development

Before starting I should give you a little information on the organization I work with. SOLINET is a multitype consortium serving 2100 libraries of all types in the 10 southeastern states of the U.S. and the Caribbean. We provide and facilitate a variety of cooperative services. These include extensive training and staff development, group electronic resources licensing on both full text and A&I databases, preservation of library materials, and access to OCLC services. We work extensively to partner with consortia in our region to best serve our common memberships.

## What is a Library Consortium?

There are many kinds of organizations for library cooperation and many words that describe them. In the U.S., for example, labels for these cooperative organizations include consortium, network, association, and virtual library. For purposes of simplicity today I will consistently use the word “consortium” to

include organizations under all of these labels. Whatever the word used, these organizations have a common purpose: to bring together librarians and libraries to undertake activities or serve objectives that could not as effectively be undertaken by individual librarians and libraries in isolation.

These activities and objectives may range from very informal to highly structured. However, consortia, whatever the characteristics, share the principle belief that library cooperation is the tool to achieve desired results.

## Commonalities and Variations in Consortia

Describing consortia is much like the old story of six blind men describing an elephant.

Each has a hold of a different part of the animal. One is holding a leg and describes an elephant as like a mighty tree. Another holding an ear describes an elephant as flat and leathery. Another holding the trunk describes it as long and snake-like. A librarian's description of consortia depends very much on what kind of consortium the librarian has gotten a hold of!

Consortia can be described on several dimensions. Is it formal or informal? Does it have documented goals and objectives or does it have a more local, collegial purpose? Does it have paid staff or does it work with voluntary staff or its members? Does it have fees for services or programs? And, perhaps most important, what libraries are members?

## Model 1: Informal consortia

Informal consortia usually have a local, collegial purpose such as providing opportunities for librarians to come together to discuss issues and cooperative programming. They often have no or little funding, use the contributed staff time of their members for programming, and do not have highly

structured governance. This type of consortium is often geographically small, with its strength in the forging of relationships between librarians in a region. Often these consortia take on activities such as interlibrary loan agreements and programs to share staff expertise that enhance services without a need for much direct financial commitment. These consortia often develop over time to more formalized consortia with more ambitious and formalized agendas.

## Model 2: Formal consortia

Formal consortia usually have a well-defined and documented purpose, built around the development of and sharing of technology, expensive library resources, and staff training and development. These consortia most often have ongoing funding sources, either fees from member libraries or grant or government funding. Usually these consortia have full time staff and a defined governance structure that ensures member representation in establishing program priorities, hiring staff, and setting fees. The membership make-up of this kind of consortium can vary in geographic reach from regional to international, according to the purpose for which it was established.

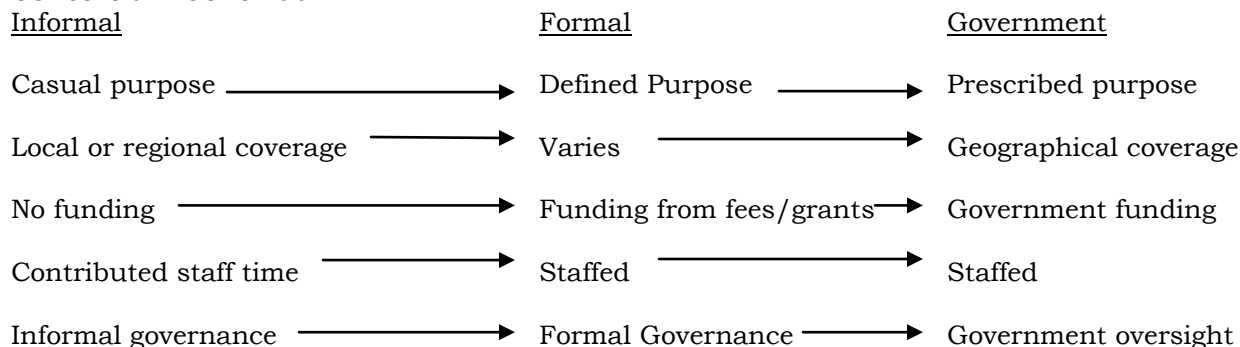
## Model 3: Government sponsored consortium

A third kind of consortium model is also common: the government-sponsored consortium. These are groups constituted by government authority, and often with full or partial government funding. This type of consortium shares most characteristics with the formal consortium model described above, with the key difference being their identified public purpose, which is often set by the legislation or other official action.

In reality, these three models do not exist as three distinctly different types of organizations. Rather, they exist on a continuum, with variations and shadings among consortia based on the realities, needs, and history of the participating libraries. Consortia are often established as informal organizations and become more formal as their programs, funding needs and/or membership grows. I should also add that these three models are a schematic simplification of the complex topography of consortia.

The continuum represents the extensive variety of models in place for library cooperation today. For purposes of this paper I would like to focus further on the purposes for which consortia are formed

### Consortium Continuum



## Purpose of Consortia

Consortia are formed by libraries for a variety of purposes. Most consortia objectives include some or all of the following:

1. Communications and networking of librarians including the sharing of expertise and the identification and resolution of library issues and problems
2. Development of cooperative programs such as sharing library materials, sharing of delivery systems, and providing continuing education.
3. Realization of economies of scale by sharing the cost of such resources as systems, electronic information resources, and staff expertise.

4. Leverage of library resources through group negotiations and purchases by pooling funds and purchasing power.
5. Procurement of government grants monies in order to fund cooperative activities.

6. Sharing of risk among groups of libraries by development and testing of new services and program. The continuum of these services across consortia can be seen

**The continuum of these services across consortia can be seen:**

Formal/Government	→	Informal	Consortia
Communications & Networking		X	
Cooperative Programming		X	X
Economies of Scale			X
Leverage of Resources			X
Funding Procurement			X
Risk Sharing			

In general, informal consortia focus on communications and cooperation that builds on resources in place in libraries. The more formal consortia focus on developing and procuring additional programs and resources, particularly those requiring financial investment from member libraries, foundations, or government agencies.

Of course, real life is never as neat and organized as charts and graphs would make it appear. In reality, consortia may be more or less formal for different characteristics.

### **Consortia Development**

Consortia provide an effective vehicle for libraries to accomplish what they could not accomplish individually. Libraries will continue to form new consortia or to evolve current consortia in new directions as their needs change.

Whether you are at the stage of forming a new consortium or developing a current consortium, the following strategic questions can help ensure the consortium's value to its members.

- What is the consortium's mission and purpose?
- Is this mission and purpose best met with a formal or informal consortium?
- Is there a consortium in place that serves or could be developed to serve that mission or purpose?
- What are the practical decisions libraries must make for consortium start-up?

The answer to these questions will help guide libraries' decisions to form or develop consortia. They will also assist libraries to avoid costly duplication, but to build on the strengths of their variety of available cooperative programs. Let me turn to each of these questions.

### **Consortium's mission and purpose?**

Libraries must be clear on the agreed upon purpose for which they are forming the consortium. Without this, any consortium will lack focus and lose the support of its members. Libraries can test their decision to form a consortium by asking, "What will the consortium do that my library cannot do alone? This should include an understanding of the benefits members libraries expect.

### **Formal or informal consortium?**

The Consortium's mission and purpose should determine whether it would be an informal or formal organization. In order to meet the mission, will the consortium require dedicated staff, significant technology, or substantial financial resources? If so, a more formal organization may be appropriate. If not, a less formal organization may be more effective.

### **Whom does the consortium serve? Is there a consortium in place?**

Before establishing a new consortium, libraries should consider existing organizations and their possible growth or adaptation to serve the identified purpose. Often, libraries have a history of cooperation that can be the

groundwork for emerging cooperative programs. Building on current relationships. Infrastructure, knowledge and/or activities can jumpstart library cooperation in new areas. However, if earlier efforts are burdened with negative history or poor relationships, formation of a new consortium may be more effective.

### **What are the practical decisions needed?**

Libraries forming or re-directing consortia must consider a variety of practical decisions. In making these, they should be guided by the identified mission and purpose of the consortium.

Decisions include:

#### **Governance:**

- which libraries are eligible for membership?
- how are governance rights apportioned?
- what is the make-up of the governing body, and how is it selected?

#### **Programs:**

- how are priorities set?
- what are the programs to be offered by the consortium?

#### **Resources:**

- is there a need for staff, infrastructure such as computers?

- where are they housed, and who controls them?
- what is the source of funding for these resources? (dues and fees, grants, government funding)
- who is responsible for the consortium's financial management?

Each of these questions will help to shape the consortium in service to its members. Consortia members or potential members should participate in the discussions in which these questions are addressed. This will build a common vision, cooperative relationships, and strong commitment to the consortium. I have facilitated several consortium-planning processes and have seen the power of librarians working together.

More discussion on the organization and management of library cooperatives is the subject of a future paper. The issues of staffing, management, financial viability, and operations of consortia is a fascinating study. However, it is in questions of purpose and mission that the consortium will succeed or fail in meeting its member libraries' needs. It is in the questions of consortial purpose and mission that libraries will build an effective consortium to meet their diverse and complex needs.



# Making Sense of the Electronic Resources Maven: A Tale of Two Caribbean Academic Librarians

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*A plethora of scholarly publications are now available in electronic format. The rapid growth in their popularity and availability has left libraries struggling to adapt to the new demands imposed by this new format. With all the ease and convenience that electronic resources provide, they have also ushered in unprecedented complexities for library functions and services. The previously straightforward activities related to acquisitions, cataloguing and the provision of access threaten to be replaced by complicated, sophisticated procedures.*

*A ten-minute skit takes a light-hearted look at life at work for two twenty-first century librarians, featuring the characters "Ruby Unruly Serials" and "Rebecca Roving Reference", from different corners of the academic library divide. It explores the issues and challenges facing Caribbean librarians in performing their multi-faceted roles as serials/electronic resources/reference/acquisitions/liaison librarians as well as information literacy skills trainers, in an increasingly electronic information environment. The skit is followed by a paper presentation, highlighting possible strategies for improving acquisitions, collection development, access and usability of electronic resources in academic libraries in the Caribbean. This paper discusses cost saving mechanisms; workflow steps required to support electronic resources from acquisition to access; issues relating to access versus ownership; enhancing accessibility; incorporating electronic resources in information literacy training and marketing strategies for electronic resources.*

Before moving into the focus of this discussion, we must first explain what is meant by *electronic resources*. Young and Diaz suggest that electronic resources are "resources not in a print format which are accessible through the use of a computer with a modem or a CD-ROM drive - deliver information to library users as a complementary alternative to printed reference collections". There is still no standard definition of an 'electronic journal' as they have been defined in numerous ways, covering a wide array of phenomena. Some definitions are restrictive, such as that which suggests that electronic journal must be "peer-reviewed or edited" (Tomney and Burton 420). Yet different types of serials are now available in electronic form, including scholarly journals, newsletters, newspapers, magazines, as well as self-published zines. The term has also been used to describe journals that are available on CD-ROM, online, through databases such as EBSCOHost; or networked, available as single titles on the Internet or Bitnet. An electronic journal may be an electronic only title, an electronic only title of a former print title, or an electronic edition of a simultaneously published print title.

## Benefits of Electronic Resources

The benefits of electronic resources are many. Among them are: -

- the provision of better reference services resulting from anytime, anywhere access the provision of current information.

- the elimination of storage issues associated with the print version (Peterson). The increased cost of keeping the printed material makes the electronic version more attractive from an economic standpoint (von Ungern-Sternberg and Lindquist 296)
- the elimination of the need to browse through the paper journal contents pages hoping to find an article of interest
- the ability to register areas of one's interest in electronic databases or journal websites and have the system deliver articles to your desktop, which match those interests.
- the ability to search electronic abstracting services, get results and be able to transport this data into bibliographies or reference listings all at once.
- that some documents, such as those allowing statistical calculations to be effected, are more useful in the electronic format due to enhanced searchability and manipulability.
- The electronic form may sometimes be the only alternative, so it represents a net increase in the library's information base.

The many advantages of having electronic resources in libraries are clear and this is why Tomney and Burton believe "Electronic journals, and what they evolve into, will be at the heart of scholarly communities that are created tomorrow". (420) There is a growing demand among library patrons to have the

library come to them instead of their visiting the library to satisfy their information needs. Electronic resources make this demand attainable.

### **Growth of Electronic Resources**

As we move into the fourth year of the new millennium, we continue to be engulfed into an age that has dramatically altered the theory and practice of library and information science - the birth and proliferation 'electronic resources' has been especially daunting to the profession. In 1993, Ulrich's Periodicals Directory estimated that there were 2,941 journals available in full-text on the World Wide Web, while 558 were available on CD-ROM. Today, only, eleven years later, this estimate has risen to 39,900 full-text journals on the World Wide Web, 6,630 on CD-ROM and a total of 160,190 registered URLs and e-mail addresses. Another measure of the frightening size and magnitude of electronic resources is the *Internet Archive* which, by 2001, contained more than 10 billion entries dating from 1996 and growing at a rate of 10 terabytes per month. The *Internet Archive* in working to prevent the Internet and other "born-digital" materials from disappearing into oblivion now contain over 300 terabytes of data, growing at 12 terabytes per month. (Internet Archive) Part of this rapid increase in the availability of electronic journals in particular, can be attributed to the efforts of projects worldwide such as *Project Muse*, *JSTOR* and others of similar nature.

With all that was happening on the international scene, The University of the West Indies, Mona Library (hereinafter referred to as the UWI Mona Library) was determined not to be left behind. As early as 1997, frustrated by frequent telecommunication problems affecting dial-up access to its databases such as DIALOG, OCLC FirstSearch, and STN, as well as the cumbersome access to MEDLINE on CD-ROM without a tower, the UWI Mona Library, began to look to Internet access for these and other databases as a solution. During the 1998/99 academic year the library began to pursue electronic access to the journal literature as well as non-journal materials in two ways. Firstly, by activating the electronic option of over 57 free, and free with print subscriptions, and secondly, through subscription to online full-text databases such as EBSCO's Academic Search Premier providing access to over 450 aggregated full-text journals. Complementing this access were our very own locally maintained in-house

databases, WESTINDIANA, CAREN, MedCarib and recently commenced CARDIN databases. In January 1999, added to this success the Library Automated System, VTLS EasyPac resulted in our users no longer having to register their library membership manually. This was implemented to enable our clientele to use the Online Public Access Catalogue (OPAC) to conduct literature searches of the library's print collection much faster and gain more access from a single search by utilizing a variety of search options from the automated catalogue accessible from over fifteen workstations.

Challenged to provide improved access to our growing number of commercially acquired and in-house databases, The Library, under the direction of our new Campus Librarian, was able to realize this dream when in November 1999, the doors of the Mona Electronic Reference and Information Centre (MERIC) was officially opened unveiling over 48 computers in the Main and Science Libraries fitted with Internet, and E-mail access to our users, and a training room with fourteen computers. Significantly, by August 2001 the strategic positioning required to carry the University of the West Indies forward was made abundantly clear in the form of the *Draft Strategic Planning Framework Document 2002/03-2006/07* which sums up the mandate explicitly:

"The University must continue to encourage and support student use of the technology. This will not only improve the learning environment directly but it will also help build competences that will be of benefit when the students graduate and enter the workforce. In today's higher education environment the norm is to provide students with e-mail facilities, Internet accounts, access to online curricular materials and software applications appropriate to their academic programmes...in addition to library resources that include electronic journals and databases. This baseline is constantly being revised and UWI must be prepared to invest in continuous improvement." (42)

In support this mandate the UWI Mona Library continues to increase access to its resources by making the OPAC available on the World Wide Web. The electronic resources collection continued to be strengthened through the acquisition of CD-ROM products, new web based books and reference works. Midway into the academic year 2003/2004 access to

electronic resources provided by the Library had increased to over nineteen online databases (including eight West Indian databases); nearly three hundred and forty free and free with print subscription full-text journals available on the website A-Z list; in addition to over 8,382 full-text aggregated journal titles available in EBSCOHost alone (E-mail from Alison Keily of EBSCOHost).

While these resources allow for anywhere, anytime access over and above the information held in a library's print collection, there are several challenges that arise. Unfortunately, all that glitters is not gold, for these benefits go hand in hand with many challenges for librarians, particularly for those involved in serials management and reference work. The cost factor also bears heavily on the selection and de-selection of electronic resources at Mona, like any other libraries in developing countries plagued by shortage of financing. According to Lugg and Fisher "building and managing electronic journal collections is a high-cost, high-maintenance activity". (1)

### The Challenges

Librarians who entered the profession before 1990 could not have been prepared, formally, for or anticipated the overwhelming and ever expanding mass of information now available electronically on the Internet. It was widely felt amongst persons within and outside of the Library community that librarians would somehow become obsolete since the all-powerful World Wide Web would overtake them in leading users to information. Others argued that librarians would be in greater demand to assist users with the turbulence of the ocean of information that will come into being. Perhaps, it could be said that both are true. On the one hand, we have all come across patrons who consult the web before and consulting a librarian and prefer it to a library catalogue. On the other hand, there are also many patrons who are unfamiliar with electronic modes of accessing information and seek the assistance of a Librarian, perhaps, even more so than in times past. Indeed, we have seen a steady flow of reference queries since the advent of Internet access in both the Main and Branch Libraries. Periodicals staff have been faced, to a great extent, with changes in the nature of reference enquiries as every so often they must rise to the challenge of dealing with enquiries related to access to the full-text version of the journal titles in the print collection.

While information exists in hordes and droves in a variety of formats, many users are simply unaware of the methods of accessing it. Currently, without the necessary links available to lead our patrons from the OPAC to the databases and full-text journal titles and vice versa to the print edition in the OPAC the need for guidance is evident. It is also the authors' observation that the critical thinking skills necessary to brainstorm and search by a variety of related terms are underdeveloped by many of our patrons carrying out research. They require assistance in breaking down elaborate topics into possible concepts and keywords to refine their searches. Who better to assist with this process than the Librarian?

The onslaught of electronic resources therefore demands that librarians be creative and proactive in guiding users to these tools. The role of the librarian as the guide is not a new concept. In fact, Dewey's pledge to library users was not just to offer them

'the best bibliographies, *cyclopedias* and dictionaries,' but also to offer "the aid of someone fully acquainted with the resources of the library, able to discriminate between the sources of information, and adjust them to the manifold needs of readers, and at hand to impart the desired help..." (qtd. in Cullen 5).

In the past, this 'pledge' would have meant librarians who have close familiarity with print resources in their respective libraries and perhaps in a few others. Today, where more information exists outside of the walls of the library, it becomes increasingly difficult for librarians to live up to Dewey's pledge of being "fully acquainted with the resources of the library" – especially since electronic collections have grown far beyond manageable proportions. Zhang has further expanded this mandate as follows: "It is generally agreed that the primary roles of academic library public services are to assist users to identify and locate needed information, to instruct users how to retrieve and evaluate information and to ensure the availability of materials from both local and remote sources".

Whilst much of libraries' energy is geared at gathering, funding and providing access to electronic resources, another challenge lies in the fact that these products and services *must* be well utilized by the students and faculty of the institution. After all, as candidly put by Darch and Underwood, "ICTs are useless unless users are 'enslaved' and empowered to use them effectively". In addition to 'useless',

one cannot ignore the waste of financial resources that comes with the under-utilization of these resources paid for by already sparse academic library budgets. It is important that librarians involved in assessing electronic resources, ensure the relevance of such resources to the institution's teaching and research programme, and that the benefits outweighs the costs.

Moreover, many library users are found to have too little knowledge about analyzing a topic or a tutorial question, in order to articulate their information needs, with a view to finding the appropriate information to match the identified needs. This problem is undoubtedly a feature of our clientele at the University of the West Indies, Mona Campus and as the Vice-Chancellor aptly puts it:

"Graduates of the UWI should leave duly empowered...with an under-standing of the inter-connectedness of all knowledge and a mature capacity to deal with diversity." (Vice Chancellor's Report to Council 2000)

Hence, the Principal in setting the campus agenda declares that for the Campus to remain committed to delivering quality education to our students,

"The campus will emphasize sound undergraduate education...to produce good graduates capable of researching materials, analyzing and integrating knowledge...graduates who are independent critical thinkers..." (Campus Principal in *Mona Campus Development Plan, 1990-2000*)

It follows, therefore, that librarians are now being faced with the challenge of conveying information literacy skills to patrons, so that they may utilize these electronic resources in the research process. One means of achieving this is through the hosting of training sessions in the use of the library's online catalogues, subscription databases and the World Wide Web. The challenge here, however, is that the percentage of students who participate in these sessions is a mere drop in the bucket of the institution's academic community. A great number continue to be unaware of the potential of the tools such as the online catalogue and electronic databases in providing a wealth of print and electronic resources for their research needs. They miss out on valuable lifelong skills required to sift through, select and evaluate the ever-expanding resources being made available in a wide array of formats. The struggle to put in place the

most appropriate solutions, such as a compulsory foundation course in information literacy skills, may be a long way off yet.

Despite these difficulties and librarians' wishful desire to reach all students through group sessions, one-on-one training is a common feature of the reference interview at Mona. As a result, the Reference Desk often becomes a mini-classroom where these skills need to be taught, often to the student who did not foresee the value of attending one of the previously offered training sessions. The Reference Librarian is likely to find him/herself responding to reference queries and providing information literacy training at the same time. Like the Reference Librarian, the Serials Librarian is also constantly on the frontline, answering reference queries and resolving the technical difficulties encountered in accessing e-journal. They too must assist students who arrive at the periodicals section to fulfill the requirement nowadays of most courses to access, use and cite a set number of electronic journal articles. Another source of frustration arises when students attended the relevant training sessions, but did not pay close attention or see the relevance of the strategies being taught at that time creating the need to go through the necessary concepts once again at the point of the user's need.

Following closely on the heels of information literacy is competency in the use of computers. Gordon notes that this form of training is important in those "countries where computers are still not widely used in the school system, in information literacy and in Internet navigation skills" (4). Brandt posits that Internet training is a *precursor to information literacy*, as it "ensures that learners will be able to master software and applications that will be needed when preparing to learn advanced skills in information retrieval and evaluation" (257). His definition could be further expanded from 'Internet' training to 'computer' training on a whole. Without an overall understanding of the use of a computer, students would have great difficulty utilizing search tools and materials available in electronic format. While some may argue that computer training does not fall under the mandate of the library, what are librarians to do when they must help students, who have no computer skills, to access information on the Internet? Thus, basic instruction or assistance with computers becomes a necessity. At the UWI Mona Library, student assistants are employed to provide this basic type of instruction, in MERIC, at the point of need. In addition, there are several free tutorials on the Internet, such as the BBC's

*Absolute Beginner's Guide to a Computer*, which may be used to assist in this process. Students can be directed to use such aids to gain these much-needed skills in an independent learning mode.

On the other side of the coin are users who are fully adept in the use of the Internet and electronic databases. When Librarians look to these tools to attempt to answer a query, the user has already perused them and expects to be guided on to more sophisticated tools. Included in this group are those users who require Librarians to guide them to information regardless of the subject emphasis of the main or branch libraries to which the librarian is attached and where the patron visits to make their enquiries. It simply means that librarians must be well versed in the use of various search engines and subject gateways on a wide array of topics, to better assist users and to prove their relevance in the academic setting. As Stephney Ferguson posed the challenge in a recent e-mail:

"Whenever possible, we should underscore the fact that whether it is the science, medical or main libraries, we are expected to provide access to resources, unless we know for a fact that the information required is only available in the print format. Every effort should be made to assist the client from whichever Branch. We should always remember that in these days information does not reside exclusively within the walls of a building we now operate in "Wall-less libraries"."

The broad knowledge base needed to provide such a level of service may be acquired by attendance at relevant workshops and conferences and regularly perusing scholarly journals to keep abreast of trends and means of improving search strategies. The importance of networking with other information professionals internationally, as well as collaborating with colleagues in small informal groups dealing with information resources, knowledge and skills cannot be over-emphasised. Keeping a simple database or a log of reference queries along with the resources suggested would also be a useful tool to provide quick answers to complex queries. It is also useful to bookmark websites that provide free updates on new e-resources and web guides to various disciplines to keep oneself aware of resources on a variety of subjects. Marylaine Block's website "Neat New Stuff" available at <http://marylaine.com/neatnew.html> is one such useful source. Subscribers are e-mailed

weekly newsletters, which provide a list and brief abstracts for some useful tools. The creation of subject portals on the Library's website also helps to organize some of the relevant resources by field of study so that librarians may assist users more speedily and enhance usability.

At its root, librarians should not view this independent searching behavior of users as negative because it is our role to foster independent lifelong learning. Instead, we should seek to develop critical thinking and evaluative skills amongst patrons, to compliment this behaviour, to ensure that their journey on the World Wide Web may lead to more reputable and accurate resources.

Another issue arises when users have very high expectations as to what can be accessed online and the speed with which the required information may be located. These raised user expectations create additional stress on the librarian to find the information instantaneously, especially when what is needed has not been catalogued, is not readily available or has not been digitised, as is often the case with materials originating in the Caribbean. This pressure for online access to local resources comes both from library patrons and local and international researchers. Our Librarians must have an awareness of what is available locally in digital format, the ongoing projects to achieve digitisation of local materials and collections, as well as initiate or participate in projects to digitise and make local collections available on the international arena. According to Sowards, to ensure mastery of effective information seeking skills, librarians must attend ongoing training sessions and there should also be mentoring of new librarians, by more experienced ones.

A related challenge public service librarians have to face comes from some patrons who are simply not prepared to take the time to *learn* how to conduct research or to peruse the available resources to enhance their research skills. Instead, they seem driven to use only that which can be found with the greatest ease and speed. Van Dam and DiMarco observed, "undergraduates usually have a time management strategy, not a research strategy" (qtd. in Doyle-Wilch and Tracy 2-3). Doyle-Wilch and Tracy expand on this by noting that this, the "proverbial 'law of least effort' is not just the law of undergraduate nature, but the law of human nature" (3). Perhaps this results from the intense pressure of meeting course work deadlines, assignments and examinations

or perhaps there is just a general unawareness of the value of research.

Another challenge lies in the fact that more and more library patrons are not entering through the Library's physical door, but through the virtual one. Debowski refers to these as *hidden users*, since they rely on the library's information resources, but may never come in contact with librarians or the library building itself. This forces librarians to create interactive, user-friendly tutorials and guides. E-mail reference is another useful tool for reaching members of this wider community. Again, this poses additional concerns regarding the assignment of library staff to monitor virtual reference queries as well as the obvious challenges faced when reference interview is conducted asynchronously.

It goes without saying that the provision of electronic resources must go hand in hand with the hardware required to access them. Electronic resources should be accessible anywhere, anytime, but Internet-ready computers may not be accessible in students' homes or offices. One way that libraries have been addressing this problem is through the creation of computer research facilities so that students may access these resources. Thus, along with hefty subscription and access fees, libraries are expected to provide Internet-ready computers, facilities for the most up-to-date storage devices (such as USB keys), as well as printing facilities for students to gain access to these materials. Already tight budgets must therefore be further stretched to make this a reality. Once the financial hurdle has been (temporarily) crossed, more challenges lie ahead for Librarians. Often, their costly electronic reference centre seems to function more as a computer lab than a research hub. Students want to use these facilities for word processing at best and for chat rooms and web surfing at worst. Young and Diaz noted, "as libraries increase the number of databases leased or accessed, they increase local demand for convenient access to terminals. In addition they face a growing challenge in limiting what gets done on these workstations, since they access not only library materials, but a whole Web-based world of games, chat rooms, e-mail sites, pornography and e-commerce. When libraries create policies limiting acceptable use, reference librarians are put on the spot." In light of the other challenges that need to be dealt with, it is virtually impossible and counterproductive for librarians to 'police' what is being viewed on these monitors. The provision of filters on computers may alleviate some of these problems, but would create

others as filters are often costly and fail to block all 'questionable' material and inadvertently block 'unquestionable' resources. In addition, if librarians' aim were to foster critical thinking and active learning, the use of filtering software would be deemed as restrictive of patrons' intellectual freedom. There is also the question as to whether our mandate to provide information for the teaching and research needs of our clientele may not be required to extend to their 'recreational needs'!

The challenges are mounting for the Serials Librarian, as the burden of selecting, acquiring, renewing, claiming, maintaining holdings records, cataloguing, paying for and preparation of binding of print journals is being compounded with the added tasks of engaging in e-resources site license assessment and negotiation and direct contacts with publishers (who for the most part refuse to deal with agents). Lugg and Fischer warn that once activated, electronic resources require a number of maintenance tasks to ensure that "access remains constant. These include site monitoring, URL maintenance, content or coverage changes, missing or incorrect ISSNs, titles differing among multiple sources, and distinguishing multiple sources for the same content". (6) They are also engaged in researching and meeting to decide on appropriate link resolvers or in-house cataloguing and linking maintenance procedures. Where a link resolver has been configured to link from abstracts and indexes databases to the full-text those links must be maintained as soon as the publisher, provider or URL changes. Resolving such problems, as well as evaluating e-resource usage for renewal or de-selection can be very time consuming. In fact Lugg and Fischer enlists usage tracking as "critical to the ongoing management of an electronic resource list, to inform pricing decisions, and to weed and replace little-used titles". (6)

In the mean time, Serials Librarians more often than not, are required to wear their Reference Librarian's hat as they unavoidably take on the role of troubleshooting access problems to the very databases and electronic journals which they participated in selecting and acquiring. They must determine the root of the problem, whether the subscription has expired, or some problem exists with the library network or proxy server – whether the problem is technical or administrative. They too must be prepared to provide mini-instruction sessions to patrons on serials holdings and URLs on the Library's OPAC.



Additionally, Reference Librarians are often forced to become technical troubleshooters since they are often the most accessible staff members to patrons in these areas. "There is a technical knowledge/expertise that is expected at the moment of assistance... Working on technical matters (and breakdowns) takes a great deal of time away from the real, important work of librarianship." (Doyle-Wilch and Tracy, 12). They must now collaborate with Serials Librarians and Systems Staff or act as go between to troubleshoot access problems to electronic journals and databases. Sowards wonders whether this new mixture of tasks suggests new competencies for reference staff, or if it threatens the demise of reference work as an area of professional concentration. During any one shift, research queries seem to come hand-in-hand with questions and complaints about the speed with which electronic documents are being loaded, the malfunctioning of a printer or its need to be restocked. Diaz and Young argue that "while the technical staff have to bear the load of coming up with solutions to these access problems, it is the reference staff who must explain to the public why access is not available, or why it is achieved in a different manner from home". Lugg and Fischer state that the responsibility for resolving the problem may often be unclear as the broken link is brought to the attention of the public service librarians, while license, subscription and publishers' contact information may only be accessible to serials, systems or technical services staff. Indeed, public service librarians are often in the firing range as it relates to these issues and this adds another dimension of pressure to their jobs.

Resource discovery and access management of electronic resources have intensified librarians' workload. Decisions must be made whether to catalogue e-resources obtained for the OPAC or simply make it available in a list of databases and provide journals via a separate A-Z listing. Bordeianu and colleagues posit that, "for reference librarians, using the OPAC as a finding aid for electronic resources in particular is becoming increasingly cumbersome and problematic. E-resources are not always catalogued, meaning the reference worker needs to check other lists to see if the library actually provides access to the resource". One useful way of gaining control over the electronic resources is the Co-operative OCLC's Online Resource Catalog (CORC) project, which allows web resources to be catalogued, and hyperlinked for access directly from the Library's catalogue. The library must make the decision to be consistent in providing single or separate record in its OPAC where multiple

versions exist and link resolvers, which can be used to lessen the workload, must be constantly updated.

### **Other Possible Coping Strategies**

Following is a list of possible solutions to help to alleviate some of the problems faced by serials and reference librarians in an increasingly automated era. The compilation has been based on our own experiences as well as suggestions found in recent literature.

- Consider forming an Electronic Resource Committee and Internet Workgroup responsible for evaluating these resources and exploring the technical, legal and financial ramifications associated with them. The serials, electronic resources, systems, serials cataloguer, and the head of the technical services unit must form the core membership of this committee. The reference librarians would also play a useful role in such a committee as they interface directly with the persons using these tools (Jeskes 13-14).

- To reduce staffing constraints and increasing workloads, consider shifting technical service activities from serials librarians and reference librarians to a centralized Technical Services Unit. This process has already commenced at the UWI Mona Library with the centralization of serials cataloguing and holdings maintenance. There is need create an opening for an Electronic Resources Librarian within this unit, who can drive the management of and access to electronic resources, with a deep knowledge of the e-products purchased by the library, usability studies, and the evaluation process for selection and de-selection. Duranceau and Hepfer emphasizes view that the "bottom line is that in academic libraries today, more staff is needed to support e-collections which are growing rapidly in size and significance". (320) Libraries must, therefore, make a clear effort to reallocate its staff or redefine job positions to build a solid and well-equipped technical services unit, with a view to meet the rather astonishing level of demands of the volume and complexity of digital collection being generated and acquired by the library. Lugg and Fischer also cite outsourcing of some of the tasks supporting the workflow process, from resource identification to renewals/cancellations, to agents as a viable and possible cheaper option to reduce workload and added costs associated with the need for additional staffing.

- Fowler suggests that there should be greater collaboration between librarians and

the Library's systems or IT department. He offers the following as coping strategies that may result from this relationship: -

- ✓ *"Including the information technology department in collection development decisions from the start, so that technical ramifications can be made clear to collection development personnel, and so that any difficult issues can be assessed and dealt with at the front-end process, and not, as sometimes happens, at the end."*(18)
- ✓ *"Allowing the information technology department to better educate collection development personnel, so that they can better understand the technologies involved in today's electronic library, including hardware platforms, appropriate software and the authentication process "*(18)
- ✓ *"Share a common goal of developing electronic products for the public service area that behave in the most user-friendly manner possible. Also, both groups need to work to make interfaces understandable, which includes eliminating un-necessary intermediate screens, making access as fast as possible, and making the process of access intuitive, and not problematic for the patron."* (18)
- ✓ *"Preferring products that enhance existing access or that maximize the use of existing resources."*(20)
- Utilize existing search engines and e-resources that provide access to information on the region. The United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC) provides a powerful portal to free, full-text documents on the region. It would also be useful to link this and other sources from your own website or the Library's catalogue to facilitate easy access to patrons and librarians alike. Librarians, regionally, should expand this effort to attempt full-text digitization of local databases to which they currently provide abstracting and indexing services. These activities could mushroom into income generating options for Caribbean libraries, as we ease ourselves into the fee based or paid per view for electronic resources market, which characterizes the developed world.
- Conduct sessions to enhance users' information literacy e.g. use of catalogues, research skills, database and Internet searching. These can be open to all patrons or

done in collaboration with faculty. At the UWI Mona Library, the unit bearing responsibility for this training is the Mona Information Literacy Unit (MILU). This Unit has worked with faculty to incorporate training in these crucial skills in an attempt to reach a wider cross-section of students and also because it is felt that they are more likely to gather an understanding of these skills if it is of relevance to a particular field of study or a research problem. In the academic year 2002/3, the Unit offered over seventy such collaborative sessions for students in various faculties. Many open sessions were also offered. Note that this positive venture also involves administrative concerns such as additional staffing to conduct training sessions, equipping librarians with the necessary teaching skills and the provision of suitable classroom space for these sessions.

- Trying to harness the reins of e-resources, Young and Diaz posit "reference librarians themselves are participating in the electronic publication trade by creating Web pages and finding aids to assist both themselves and their users to locate information electronically on the World Wide Web. The same Web medium that poses a new challenge for librarians offers major new tools to give us the power to control our own situation." One means of doing this is through the creation of portals on the Library's website that lead users to a collection of electronic resources on their varying area of interest. At UWI Library, each librarian is assigned to an academic department and is responsible for liaising with the faculty in that department, for the building of the collection and also for suggesting electronic resources of interest and relevance to researchers in that particular discipline. This assists users by providing them with a variety relevant of electronic resources from one gateway. Liaison librarians can also play the role of advertising agents for the library's e-resources and seek opportunities to introduce them in large lectures with the permission of faculty in their liaison department.

- Where possible, employ students to assist with basic technical difficulties and trouble-shooting in electronic research centres to allow librarians to focus on in-depth reference queries.

- Utilize free tutorials that teach enhance search strategies. Google Guide, available at <http://www.googleguide.com/> is one such example as it helps librarians to manipulate this powerful search engine. Continuing education in the form of workshops, conference and on-the-job training can help to develop new ideas and workflow ideas. It can also help to rejuvenate staff members to the tasks ahead and keep them abreast of current trends and issues.

- Since, with the best of intentions, attempts at outreach and instruction only address a subset of our user population, a web site may be the most pervasive form of interaction the student will have with the library (Klein). Therefore, we need to commission usability studies to see how patrons are handling interface of the website and other electronic resources. If these tools are not user-friendly patrons are more likely to side step the (virtual) Library in favour of other tools on the World Wide Web. These studies will also help to determine if changes need to be made to enhance the functionality of electronic tools.

- Posters are another useful means of getting this valuable information to patrons. Whatever the medium, librarians must aim to make these tools as attractive as possible to entice patrons into utilizing them. Additionally, many libraries have created similar documents, which can be easily linked to your library's website. Gordon suggests that the creation of user-friendly online tutorials, web pages and databases will encourage use of the library's home page as a gateway to the virtual library and also help to minimize the problem of users by-passing the library (4).

- Increasing googlization of scholarly resources on the Web means that librarians can now team up with Google and other powerful search engines to index their scholarly materials to provide a way to search the institutions' electronic collections, and lead users back to resources at the library's website. A lot of times the richest scholarly literature is buried in search-engine results and as more and more content is on the Web, gets harder and harder to find the high-quality e-resources that you need. Libraries should also practice institutional labelling of e-resources to ensure that their users know that access is paid for by the library.

- Participate in collaborative attempts to gain bibliographic control over electronic resources. OCLC's CORC project discussed above is one such project. Another is Jeskes' example of *Sailor*, which is a collection committee amongst libraries in Maryland, USA that makes joint decisions regarding web site and database selection. These selections are then mounted to a portal that may be accessed at [www.sailor.lib.md.us](http://www.sailor.lib.md.us). By handling this on a group basis, the workload at individual libraries is reduced (8). Perhaps a similar venture could be employed amongst academic libraries within Caribbean territories or collectively in the region. This level of sharing can be further developed into formal groups for negotiating and sharing the costs of electronic database, journal and e-books subscriptions.

- Commission user surveys to determine competency levels, research needs and interest

of patrons as well as to shed light on inadequacies in the Library's services and problems in navigating the electronic resources. This survey could also bring out the relevance of the resource, or subset of the resource, to users' research needs.

- Information duplicated equals finances wasted. Consider cancelling subscriptions to resources that are already available through another database or in another format in your Library.

- Continually re-assess database and electronic journal subscriptions. It is a waste to pay for them if they are not being utilized effectively by students and faculty. If they are not being used, consider canceling those subscriptions and select more relevant resources. It may also be financially prudent to consider, in collaboration with liaison librarians and faculty, whether to cancel increasingly costly print journal collections in exchange for access to a few e-journal which form the core titles for a particular discipline. After all, what is more important to our users – ownership or access? With efficient interlibrary loan systems complete print journal collections could become a thing of the past for Caribbean Libraries, and interlibrary loan and pay-per-view access be utilized to supply information needed by our users. Indeed, these are alternative electronic access options too. The obstacle is that many of us are not psychologically ready, to make this transition to the electronic only mode, with its attendant problems, in exchange for the almost sure access to the print in times to come. We continue to be haunted by fears of the disappearance of the e-version due to unresolved archiving issues, hacking and techno-logical disasters. In time though, cost comparisons between the print, the electronic version and interlibrary loan options may force us to take the most financially viable options despite our attachments to the print.

- Evidence of consortia purchasing in the Caribbean are few. Caribbean Librarians need to realize that with static or shrinking budgets cooperative buying among Caribbean libraries, both nationally and regionally, should be made an important option to access expensive resources and attain better value for expenditure. We must move away from the practice of each library trying to own 'everything' to effectively collaborating to ensure that each library can access relevant information collectively. Stephney Ferguson believes that:

"...resource sharing strategies...in the form of library consortia which ensures cost effective

operations particularly in the use of information technology applications and products and provide access to electronic resources which are essential for the delivery of effective library services in the modern environment.”

Despite the difficulties we face in selecting, accessing and using electronic resources, we

believe that, Caribbean librarians, like colleagues elsewhere in academic libraries of the developed countries, somewhat new to the onslaught of electronic services and resources, can and will meet the unresolved challenges of they bring, thereby ensuring effective access to the patrons we serve in, the years to come.

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# Assessing digital library software: with special reference to the Greenstone Digital Library Software

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*The development of digital libraries presents many opportunities and challenges for the establishment of focused collections of digital objects. As librarians in the Caribbean seek to evaluate the existing software and systems, and to identify the most appropriate technology and methods of building digital libraries, several research issues emerge for study and analysis. These issues include, Internet-based distribution, the capacity to provide coherent and consistent views of the resources held, metadata development, representation of multimedia and hypermedia documents, interoperability, portability, data exchange, and the performance of the human-computer interface.*

*This paper identifies types of digital libraries – full digital libraries, special and “hybrid” collections, and examines definitions currently in use. The focus is on collections built for specific user communities. Open-source and commercial software are briefly examined as well generic and specific library applications.*

*The situation of Caribbean libraries is summarized and issues considered to be desirable for Caribbean libraries are examined in relation to the features of the Greenstone Digital Library Software.*

The Caribbean has the potential to develop digital libraries as a means of extending the reach of library and information systems. Users are demonstrating greater capabilities in accessing and searching for information, software and hardware is available lower cost, and an important instrument of this potential has been the increased availability of the Internet to individuals, libraries, schools, universities, corporations etc. Figures provided by NUA Surveys show that in May 2003 there were approximately 400 Internet Service Providers in the Wider Caribbean and this number is growing as service and equipment costs are being reduced.

Schwartz in discussing the development of digital libraries, identifies a variety of forms including metadata based, full-text, special collections, and fully digital collections. The current stages of development of these libraries seems to cover the full range with many which combine traditional libraries with full-text digital collections, appropriately described by Schwartz as “hybrid libraries.”

A look at the Caribbean situation shows the development of “hybrid libraries” and the following are some of the innovations in digital library development in the region:

- The Caribbean Digital Library of the United Nations Economic Commission for Latin America and the Caribbean  
<http://www.eclacpos.org>
- *The MedCarib database*
- *The CARDIN database*

both of which can be accessed via the University of the West Indies web site <http://mona.uwi.edu/library/databases.html>

There are other “digital” “virtual” and “electronic” libraries with varying forms of presentation. There is no clear distinction between the three terms and there is some overlap with “subject gateways” and “portals”. In this paper the term “digital library” will be used to cover this range of terminology.

Christine Borgman who has analysed several definitions of digital libraries has identified the major elements of digital libraries as including:

- a set of electronic resources and associated technical capabilities for creating, screening and using information;
- construction for a given user community;
- functional capabilities to support the information needs, and uses of that community.

In addition to the above emphasis on the needs of a given community of users, Borgman also identifies other elements including:

- full content of the information resources in electronic forms;
- accommodation of multimedia formats;

The 1998 definition of digital libraries by the Digital Library Federation which Borgman describes as the “first succinct definition” introduces the issues of “an institutional base” and “ensuring the persistence overtime of collections of digital works.”

The effectiveness of digital libraries depends on the ability of the digital library software to provide the required features to allow creators and users to access, make effective use, and ensure preservation of the desired multi-format collections. Building digital libraries is now being done for the development of collections of documents, institutional repositories of

records, conference papers, collections of electronic theses etc. The process of assessing and selecting software can be seen as offering two broad areas of selection, the choice between commercial and open-source software.

TABLE I lists some commercial and open-source library application software.

**Table 1**

<b>Some Commercial and open-source library application software</b>	<b>Open-source generic</b>	<b>Open-source specialized</b>
<i>CONTENTdm generic</i> <a href="http://www.oclc.org/contentdm">http://www.oclc.org/contentdm</a>	<i>Koha library system generic</i> <a href="http://www.koha.org">http://www.koha.org</a>	<i>Eprints self-archiving and open archives - designed for refereed research literature.</i> <a href="http://www.eprints.org">http://www.eprints.org</a>
<i>DLBox generic</i>	<i>DSpace generic</i> designed for research literature <a href="http://www.dspace.org">http://www.dspace.org</a>	<i>ETD-db designed for e-theses</i> <a href="http://scholar.lib..edu/ETD-db">http://scholar.lib..edu/ETD-db</a>
	<i>Greenstone digital library software generic</i> <a href="http://www.greenstone.org">http://www.greenstone.org</a>	

Open source software which is based on the tradition of open standards, shared source code, and collaborative development, provides an economical alternative to libraries' reliance upon commercially supplied software. Such software is free of cost but there are costs of documentation, training and sometimes customisation, and conversion.

With open-source software, the information technology infrastructure that is essential for library operations and services can be built according to open standards and as such would be potentially interoperable with other essential software and systems. Some of the requirements of digital libraries include:

- Facilitating networking;
- Ubiquitous availability to libraries;

- Capability of being tailored to suit the needs and circumstances of individual libraries;
- Adequate documentation – printed or online;
- Existence of an active user group.

Open-source software is usually the result of research projects and may be well supported by the project teams at least for an initial period. The *Greenstone Digital Library Software* is produced by the *New Zealand Digital Library Project* at the *University of Waikato, Department of Computer Science*, and developed and distributed in cooperation with UNESCO. Documentation has so far has been well distributed on the Internet and the Greenstone user group is actively functioning.

Another open-source software package *DSpace* was produced by the Massachusetts Institute of Technology (MIT) in collaboration Hewlett Packard. Members of the DSpace Federation project are testing and implementing DSpace and MIT periodically hosts user group meetings.

The concept of open-source software usually inspires ideas of freely available software which comes with an abundance of rights. Altman in examining Open Source Software for libraries summarizes “the broad rights it awards to the consumer” “to use modify and distribute the software” as:

- Rights to use without discrimination;
- Full rights to create derived works and access to Source Codes, freedom to modify and distribute and integrity of authorship;
- Rights to redistribute under the same license as the original.

In assessing open-source software for digital libraries in the Caribbean we can consider the three main principles proposed by Christine Borgman: “interoperability, portability and data exchange”. As databases become easier to create we can envisage the development of numerous special collections taking advantage of the availability of open-source software, and expanding information and communications infrastructure. Development of these special collections is also facilitated by the availability of multimedia formats, and collections of a variety of digital objects. The real challenge in assessing digital library software is therefore to determine the existence of features which can contribute to “interoperability, portability and data exchange”. Such advantages must be balanced against the availability of long-term support, consistency and stability.

An initial question relates to the type of materials and formats which the software can accommodate. Is the software prepared to accommodate all types of materials and of digital objects or is it prepared for a special category of materials such as conference papers, theses and dissertations etc? The parameters of the collection would therefore guide the choice of software. In the university and corporate environment there is increasing interest in developing “institutional

repositories” to expand the accessibility of the corporate records. Software such as eprints, ETD-db and DSpace are created particularly for the results of university research, and enable academics and librarians to participate in input and access. Richard Jones, who examined DSpace and ETD-db to determine their suitability for managing electronic theses and dissertations, identifies the similarities and differences between the two digital object management systems, to determine their applicability in a modern e-theses service. Inter alia Jones describes DSpace as a generic facility and ETD-db as a product designed specifically for theses. Greenstone Digital Library Software is another generic product, which is not specifically designed for a single type of document. It is able to accommodate books, research papers, conference papers, images and various types of digital objects.

In general the choice would be between the generic and the specifically designed software. Libraries seeking interoperability, portability, and data exchange would be expected to select generic software which can be used to create several types of collections as the basis of a digital library.

The Greenstone Digital Library Software provides an interesting example of an open-source software package available under the terms of the GNU General Public License. It is described as “a suite of software for building and distributing digital library collections” which provides a new way of organizing information and publishing it on the Internet or on CD-ROM ”.

Greenstone is produced by the New Zealand Digital Library project at the University of Waikato, and distributed globally in cooperation with UNESCO and the Humanity Libraries Project. Greenstone was first released in 2001 and has had several versions issued since then.

TABLE II provides a summary of features of digital library software, which can be considered desirable for libraries in the Caribbean.



**TABLE II Desirable features for the Caribbean**

<b>The situation of Libraries in the Caribbean</b>	<b>Desirable features for digital library software.</b>
Libraries are seeking to optimise their use of the Internet and electronic networking to deliver relevant content to users.	The system should be able to distribute collections via local networks and via the Internet. This distribution should also facilitate interoperability, portability and data exchange.
The UNIX and Windows operating systems are popular among those used in libraries in the Caribbean.	Options for use of popular operating systems
The development of Internet accessible databases requires also assurance that the integrity of the collections be maintained.	There should be security features such as passwords to ensure proper administration of access to the collections.
Users are increasingly expecting and requiring delivery of digital objects to their desktops.	Capability to provide not only metadata but also full text access to items in the collections.
There should be efficient and immediate creation of access structures for searching and browsing	Immediate creation of indexes for searching and browsing.
There has been some adoption in the Caribbean of Dublin Core as a metadata “standard”	Automatic extraction of metadata from digital objects and the ability to import required metadata sets.
Libraries are expanding the range of formats included in the collections.	The software should have multimedia capabilities and should be able to recognize objects in a variety of formats.
Libraries are increasing the depth of treatment of the items in their collections – chapters, journal articles etc	The software should permit the recognition of parts and subsets of digital objects in collections.
All libraries are seeking to operate within limited budgets	Free or low cost software without restrictions or costs for numbers of users or on distribution methods
There are several languages used in the Caribbean	The software should have multilingual capabilities.
There should be some assurance that there is support for the further development of the software	Regular updating of the software and of the documentation
Librarians benefit from networking among information professionals.	Existence local or international user groups.

An examination of the desirable features listed above in relation to Greenstone can be used to assess the suitability of this package for Caribbean libraries.

1. *The system should be able to distribute collections via networks and via the Internet.*

Greenstone provides access to collections via the Internet and local networks e.g. The New Zealand Digital Library is made up of a number of collections and is accessible at <http://www.sadl.uleth.ca/nz/cgi-bin/library>. Collections once created and “built” can be previewed in a Web browser and accessed via the Internet.

2. *There should be options for use of popular operating systems*

Greenstone operates on MAC OS X, Windows, and POSIX (UNIX/LINUX). Users are given the choice of operating system at the point of downloading.

3. *There should be security features to ensure proper administration of access to the collections.*

Greenstone offers administration and security features with sign in procedures which use passwords. At the time of installation the user is able to establish a password. The Administrator also has a different status from the user in a networked environment.

4. *Capability to provide not only metadata but also full text access to items.*

Greenstone offers full-text collections which can be also browsed, searched and accessed by chapters and sections of items.

5. *Immediate creation of indexes*

With the Greenstone software all searching and browsing structures are built directly from the documents themselves. Links are not inserted manually, but existing links in originals are maintained. When new documents in the same format become available, they can be automatically integrated into a collection.

Metadata is used to create indexes while the collection is being “built”. There is automatic execution of the information, which is searchable, the ways of browsing through the items, languages and where search buttons appear.

The “building” of a small collection can be done in a matter of seconds, but each time the building process is done the previous index is removed before re-building. There is also need to assess the time it will take to “build” a large collection.

6. *Automatic extraction of metadata from digital objects and the ability to import required metadata sets.*

Greenstone automatically extracts selected metadata and permits the import of Dublin Core and other metadata sets. Automatic extraction can be done for Language, Source, Title, ISO codes, ISBN etc.

7. *The software should have multimedia capabilities.*

Greenstone accommodates a variety of digital objects in text, images, audio and video clips. A collection may have source documents in different forms. Images and other non-textual material are either linked in to the textual documents or accompanied by descriptions (such as figure captions) to allow full-text searching and browsing. The architecture also permits implementation of plugins and classifiers even for non-textual data.

Greenstone has Plugins for different formats of source documents. Plugins currently exist for plain text, HTML, Word, EXCEL, PDF, PostScript, E-mail, and some proprietary formats. In order to build browsing indexes from metadata, classifiers create browsing indexes of various kinds based on metadata.

8. *The software should permit the development of expandable and extensible collections.*

The designers report that Greenstone is “designed for multigigabyte collections and collections can contain millions of documents”.

The collection structures are extensible in that new features can be added by making modifications to the configuration file for each collection. This is one area which is considered as requiring some careful study, preparation and application.

9. *Free or low cost software without restrictions or costs for numbers of users or on distribution*

Greenstone is open source software issued under the GNU General Public License and therefore attracts no direct costs. There are consequently no limitations on the numbers of users or the extent of distribution. Any modifications of the software should however, be made available to other users.

10. *The software should have multilingual capabilities.*

The user interface can be used in various languages including Spanish, French, and

English. Documents in a variety of languages can be processed. Unicode is used throughout the software, allowing any language to be processed in a consistent manner. Conversion is done from Unicode to an alphabet supported by the user's Web browser.

11. *Regular updating of the software and of the documentation.*

The versions have been regularly updated, and documentation covers much of the basic activities for set up and accessing a collection. The following are the main documents:

- Greenstone Digital Library Installer's Guide
- Greenstone Digital Library User's Guide
- Greenstone Digital Library Developer's Guide
- Greenstone Digital Library: From Paper to Collection

The software and documentation can be downloaded at  
<http://sourceforge.net/projects/greenstone>

12. *Existence of local and international user groups.*

There is a single international Internet-based user group which includes users from several regions. The discussion is active, and most responses and solutions seem to be provided by the Greenstone project team. Users can

subscribe to the Greenstone mailing list, by going to

<https://list.scms.waikato.ac.nz/mailman/listinfo/greenstone-users>

While there are no doubt users in the Caribbean, it has not yet been possible to identify a national or regional group of Caribbean users.

### **General considerations**

From the desirable features discussed above it seems that the Greenstone Digital Library Software meets the majority of the requirements. One general consideration is the fact that Greenstone is still relatively new, and seems to be mainly supported technically by the project team. It is still very early to say what the uptake will be among librarians globally and in the Caribbean.

Greenstone and other digital library software offer a new way of organizing information. Staff will require training at the conceptual level and also in the detailed functioning of the software. A possible strategy could be the development by each library of a few pilot collections containing digital images in formats representative of their collections. This would permit practical in-house assessments and evaluation of the applicability of the software to specific user communities.

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### **Discussion**

One should keep in mind that Greenstone and other digital library software offer a new way of organizing information. At the moment though, it is too early to determine how librarians in the Caribbean and globally would respond to the software. The need for staff training at both the conceptual as well as in the detailed functioning of the software was stressed. It was recommended that each library develop the strategy of using a few pilot collections with digital images that would allow practical in-house assessment and evaluation of the applicability of the software to specific user communities.

(Notes by Cheryl Sylvester (Grenada))

# Lessons Learned: Nova Southeastern University Survey Distance Students in Jamaica

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*Accrediting agencies in the United States and overseas are putting increased emphasis on libraries being accountable for student outcomes and quality assurance. When libraries try to document (1) student satisfaction and (2) students' use of online databases and services, the challenges are compounded. Nova Southeastern University surveyed the students in Jamaica to document students' perceptions of the quality of library services, resources, and training provided. Although students reported high satisfaction levels with library services, self-reported usage of online research materials raised some questions about the adequacy of library training and students' actual use of online library resources.*

## Introduction

Libraries face many challenges when trying to provide distance students with adequate access to library resources for students' academic research, but the problems are compounded when the library is supporting the research needs of international students. Surveys are one efficient method to document whether students are satisfied with their library services or not. However, because of an increasing focus on student outcomes, there has been increasing pressure by accrediting agencies in the last decade for academic institutions in general and libraries in particular to also demonstrate learning outcomes<sup>1</sup>. As a result, libraries need to demonstrate that students possess the necessary life-long learning skills needed to locate information both in print and online.

Towards this end, Nova Southeastern University (NSU)'s Alvin Sherman Library, Research, and Information Technology Center in Fort Lauderdale, Florida, used the results of a student satisfaction survey of library services in Jamaica both to analyze students' satisfaction with library services in general, and to unobtrusively look for data about students' usage patterns of online resources. Students' self-reported usage of search engines, online indices, and full-text databases was correlated with the methods of library training offered students in the various academic programs. The data was used to see if a library located in another country could adequately support the research needs of international students.

## Background

In May of 2003, the Alvin Sherman Library was asked by the university administration to assess the library services offered in Jamaica.

The library had conducted several institution-wide surveys in the past, but because of the difficulties of mailing surveys to international students, the Jamaican students had never been included in university-wide library surveys. As a result, the library decided to work with the site administrators in Jamaica to conduct the first international library survey in the summer of 2003.

Before describing more about the survey process, it is important to provide some background information about Nova Southeastern University. As one of the pioneers of distance education<sup>2</sup> in the last 40 years, NSU has developed into the 10<sup>th</sup> largest private academic institution in the United States. It currently has almost 23,000 students at 150 sites around the United States and in 11 other countries. Roughly half of these students are distance students in graduate and undergraduate programs in business, education, psychology, computer science, criminal justice, law, and the health professions. NSU has offered site-based classes in the Caribbean area for almost 25 years with classes currently offered in Jamaica, the Bahamas, Puerto Rico, the Dominican Republic, Venezuela, and Mexico. An increasing percentage of NSU's students are also taking classes online or distributed classes in place of, or in addition to, classes at field-based sites.

Nova University, as the institution was known before 1994, began offering the Business and Professional Management degree for undergraduates in Jamaica in 1980. The Human Resource Department at Kaiser Jamaica Bauxite Company had been looking for a way to retain employees and approached Nova University about offering classes there. At

the time, local institutions of higher education were unwilling to grant students with associate degrees credits towards four-year degrees, and Nova was willing to offer degree-completion programs. As a result, the first Nova site in Jamaica was started on the north coast in St. Ann's. Since then, sites have started in Ocho Rios, Kingston, Montego Bay, and Mandeville. NSU has done well in Jamaica over the years, graduating more than 1400 students in Jamaica. Currently, there are more than 300 students enrolled in undergraduate, masters, and doctoral programs in business and education.

### **The Challenges of Offering Library Services to International Students**

In the 1990s, NSU's main library faced serious challenges in providing distance students in Jamaica with library resources. The library did not become actively involved in providing support services in Jamaica until the mid 1990s. A staff person in Jamaica was trained to facilitate the ordering of documents from the main campus and provide students with Internet access at NSU sites. After the Southern Association of Colleges and Schools (SACS) re-accreditation process in 1997, the University established reading rooms in both Runaway Bay and Kingston with small print collections and access to NSU's online resources. The University hired the services of two part-time professional librarians to maintain the collections, help students with accessing the Internet at the site, and provide students with library training on how to use online resources.

Access to online resources presented problems, however. While students in the United States were being provided with an increasing array of online indices and full-text databases, Jamaican students did not have reliable access to these online resources because problems with the telecommunications infrastructure in Jamaica made online access slow and unreliable. In 1997, for example, there were times during peak periods in late afternoon when the Internet was so slow that it could take as long as two minutes for the computer to even respond to an online command.

Providing NSU students in Jamaica with access to print resources also presented challenges. All NSU students had free document delivery of 25 documents per week. Books were mailed first class to students in the United States, but

the library used DHL and FedEx to provide reliable document delivery for international students. Although expensive, this method ensured that books and other print materials did not languish in customs for weeks. However, because students usually had to wait a week or more to receive requested print resources, they requested print resources infrequently.

Document delivery of books to international students presented an additional hurdle. Because of the higher risk of losing materials in international transit, the Alvin Sherman Library was unable to routinely send books obtained from other libraries' interlibrary loan. This also precluded the library from using its host agreements with two major research libraries, the University of Michigan and Wayne State University, that provided NSU's U.S. students with access to 10,000,000 print documents. Although the library had a very current and focused collection, international students were limited to books from NSU's 250,000-volume collection.

In order to provide Jamaican students with easy and timely access to print material, NSU arranged for students to have in-house access to the library at the University of Technology, and the academic program paid for the education doctoral students to have access to the University of the West Indies' library. However, there were no major academic libraries available for NSU students on the north coast. The library's two reading rooms in Runaway Bay and Kingston did also provide students with a small but aging business collection.

Once the telecommunications issues were resolved in Jamaica, students could begin reliably accessing NSU's growing array of online resources and services. By 2003, NSU was providing students with more than 200 online databases, 16,500 e-books, 17,000 journal titles, 100,000 ERIC ED documents, and 260,000 full text digital dissertations. During that same period, the library started to provide the document delivery of journal articles electronically to international students using Prospero and later ILLiad, and the Reference Department offered students toll-free support 90 hours per week as well as e-mail and chat support. Jamaican students' ability to access these online resources broke students' dependence on brick-and-mortar facility in Fort Lauderdale.

As library services became actively engaged in taking resources to the users in what is sometimes termed the “virtual library model”<sup>3</sup>, information has become decoupled from the building and libraries have begun increasingly to serve as portals to information<sup>4</sup>. As a result, it also became increasingly important for the library to ensure that students were information literate and possessed the necessary skills to access information online on their own. This issue became more critical in 2002 when the university concluded that the telecommunications infrastructure in Jamaica had improved sufficiently for students in Jamaica to have reasonable online access from home and work. As a result, the university discontinued the funding for print collections and librarian salaries in Jamaica. By 2003, only one research room still existed, and a professional librarian no longer staffed it. As a result, the main library in Fort Lauderdale became responsible for training students to understand how to access full-text resources, document delivery, and references services online. Librarians from the main campus either trained students when they came to campus or travelled to Jamaica to provide training. Some academic programs arranged to have their students trained when they first started in their programs while others integrated the training into the curriculum when the students were actually more likely to be able to use the library skills for class assignments.

### **The Library Survey**

The library decided to use the survey of Jamaican students (1) to assess library services in Jamaica for quality assurance purposes and (2) to look for evidence that students were actually using the library resources. As part of the library’s quality assurance efforts, the Alvin Sherman Library needed to assess student satisfaction with library services and resources, particularly as these pertained to the university’s mission of supporting research and life-long learning. The survey, however, also provided the opportunity to look for evidence that the library was adequately serving students in Jamaica. For example, was the library adequately supporting the research needs of the students? The library wanted to know where students were going to locate research materials for their classes. The hope was that the library would be able to demonstrate that students were utilizing the online resources.

Reaccreditation also played an important role in the decision to survey the students in Jamaica. As part of the process of preparing for reaccreditation by the SACS, a regional accrediting agency in the United States, Nova Southeastern University is required to assess student satisfaction with support services including the library, but the university also needs to demonstrate that students are actually mastering the necessary library skills to access research resources<sup>5</sup>. According to SACS, “The library and other learning resources *must* be evaluated regularly and systematically to ensure that they are meeting the needs of their users and are supporting the programs and purposes of the institution”<sup>6</sup>. The evaluation process needs to look at whether the library is providing “collections and resources [that] are sufficient to support all its educational, research, and public service programs” and that students are actually mastering library skills. In addition, the library needs to demonstrate that it is contributing to the institution’s efforts to effectively accomplish its mission<sup>7</sup>.

The agency responsible for accreditation of institutions of higher education in Jamaica, the University Council of Jamaica (UCJ), has also been focusing on these issues. UCJ has always been concerned about the adequacy of library resources in print and online, but more recently UCJ accreditation teams have begun holding institutions more accountable for ensuring that graduates have the necessary life-long learning skills in technology and information literacy to succeed in the twenty-first century.

### **Implementation of the Survey**

The library survey was disseminated in the summer of 2003. At the time of the study there were approximately 400 students enrolled in the various programs in Jamaica. The decision was made to distribute the surveys in class, and a total of 305 questionnaires were disseminated and collected by the site administrators during class sessions in Kingston, Montego Bay, Ocho Rios and Runaway Bay, between July 5, 2003, and September 8, 2003. Students in the two Jamaican clusters attending workshops in Florida completed their surveys while attending classes on campus. However, because some programs did not offer classes during the summer and surveys were distributed in class rather than mailed, students in the Graduate

Teacher Education program were not included in the 2003 survey. Of the 305 surveys distributed to students, 214 were completed and returned by September 8, 2003. The overall completion rates were high precisely because the surveys were not mailed.

The survey instrument was designed to measure the satisfaction levels of the students in Jamaica for whom library services were being provided. Also, for accreditation purposes, the survey provided a method to document that the Alvin Sherman Library was adequately serving NSU students in Jamaica, particularly in respect to providing them with access to adequate research materials. Since use of online resources depended on students knowing how to access and search NSU's 200 online databases and 17,000 full-text journal titles, library training also needed to be assessed. In addition, because the library needed to show how well it was doing in supporting the university's mission to promote research and life-long learning<sup>8</sup>, a question addressing this issue was included in the survey.

The first section of the instrument focused on collecting demographic information of the participants with regards to the academic programs, degree level, where classes were taken and the number of courses participants had so far taken. Section II collected usage statistics. Participants were asked about their use of NSU library services (both on-campus and online), local libraries, and online search engines. Students were asked to identify the library services (document delivery, print resources, online subscription databases, places to study, reference and instruction, and resources accessed via the World Wide Web) that they employed in their studies. Participants were asked about where they obtained the research resources they used for their classes. Participants were also queried about when they had received library training and reference services and what modalities had been used (e.g. through orientation, hands-on lab, handouts, online library tutorials, class demonstration, one-on-one help in person or by telephone). Section III had students rate library services ranging for reference librarians and library training to document delivery, online resources, and local reading room facilities provided by NSU in Jamaica, to identify student satisfaction levels with these services and resources.

## **Interpreting the Data**

Overall, the results of the survey indicated that students were satisfied or very satisfied with the resources and services provided by the Alvin Sherman Library both with the facilities in Jamaica and online. Almost 70 percent of all respondents indicated that they had made use of one or more of NSU's library services at least once. When asked to rate the library services between 1 and 5, the satisfaction ratings were 3 or higher for all library services except, not surprisingly, the resource room facilities available for students in Kingston. Students reported being satisfied with the library training, reference, and document delivery services offered.

The survey also provided evidence that students were actually making use of the electronic services. The good news was that 75% of all respondents indicated that they used the university's online library services, and about one-third of all respondents indicated use of print resources (books, journals, newspapers).<sup>9</sup> Students also reported using services from the main campus. A total of 12.7% of participants reported using document delivery and 8.3% had used reference services. A total of 75% of all students in Jamaica had already received library training while taking classes at NSU. Students indicated that 4% had called the reference desk for help while 8% had e-mailed and 18% had utilized the online tutorials provided. This finding was important because it demonstrated that Jamaican students were becoming comfortable accessing and utilizing services provided online from the main campus. As for the use of local resources in Jamaica, 41% of the students indicated that they made use of the NSU resource room in Jamaica, and more than 50% of the students reported using other local libraries as well. The survey pointed out that students' expectations of what the library can and should be able to offer full text online, outstrip what the library's budget has been able to support. A total of 35% of all NSU students in Jamaica indicated that they were dissatisfied or very dissatisfied with the amount of full text resources being provided by the library in spite of the 200 databases and 17,000 full-text journal titles already provided.

A closer examination of the data revealed some problems. As mentioned already, the library had hoped to demonstrate that Jamaican students used the online resources for their

research needs since they did not have easy access to the library and its print resources in Fort Lauderdale. However, almost one third of the students had never used the library resources (30.1%). Another third used the library infrequently (33.8%), and only about a third reported using the resources weekly or monthly (36.1%). In addition, only 33% of all NSU students used library databases for locating their research materials. However, the same students reported using search engines 70% of the time so the issue was not that they lacked computer skills or online access. As a result, the library was unable to use the survey result as evidence that students had the necessary skills to make use of the library-provided online research resources. One possible explanation for the problem was that students had been inadequately trained on how to use the online resources. For example, only 51% of the responding students found the training timely and only 37% thought that the training was sufficient for their needs.

When the data was broken down by academic center, some of the problem areas became more obvious. Students in the business program consistently reported using the library's full-text online databases much less frequently than did the education students. A total of 73% of the students in the education program reported locating full-text research materials in library databases while only 30% of the business students had done so. In contrast, the business students used search engines 76% of the time to locate research materials as compared to only 42% of the education students. This result was particularly surprising in light of the fact that business students had (1) access to many more full-text databases and journal titles than education students and (2) were much more "tech savvy" than the education students. One possible explanation was that students simply did not need research materials for their class assignments and that Web resources were more than adequate, and another possible explanation was that the method of training business students did not prepare them adequately to use online library resources.

When the library looked for an explanation for the difference between these two groups, they found significant differences in the way that these two groups received library training. Students in the education program were provided with 3 hours of hands-on library

training when they were preparing to begin work on their literature reviews. In contrast, the library training for the business students was provided in a library demonstration before the students had started their programs. The library training for education students was integrated into the curriculum while the library training for the business students was provided before the students had any real research needs for class assignments. More than twice as many education students had received hands-on training and/or demonstration sessions as had the business students. The survey indicated that 90% of the business students had made use of the asynchronous, online Web resources to get library help at one time or another. Significantly, a total of 94% of the education students reported the library training to be timely in comparison to only 46% of the business students. The librarians concluded that the in-depth, hands-on training at the point of need made a significant difference in students' application of the library skills taught.

On a different note, the library survey examined the question of whether students considered the NSU libraries adequate to support the University's teaching and research goals and mission. Only 38.4% of all NSU students said that they agreed with the statement, and when the results were examined by the academic center, the results were even more troubling. Only 24% of the business students responding felt that NSU libraries were adequate to support the University's teaching and research goals/mission while 31% said that the NSU libraries were not adequate to support the University's teaching and research goals/mission. The fact that less than half of the NSU students surveyed felt this way was of concern because the university had hoped to demonstrate that "The institution provides student support programs, services, and activities, consistent with its mission that promote student learning and enhance the total growth and development of its students" (SACS-b, p. 58). When the satisfaction levels of business students were compared to those in education, the differences were even more noteworthy. Almost 58% of the education students considered NSU's libraries adequate or very adequate to support the teaching and research goals/mission of the University in comparison to 24% of the business students. Since the most significant difference between the two



groups lay in the area of library training, providing effective and timely training would seem to also be a factor in students' perceptions of the adequacy of the library to support the institution's mission.

## Conclusions

Surveying international students can have its challenges, but the results make the effort worthwhile. The results were illuminating both for what the data was able to reveal and for the issues that could not be addressed. Being able to document students' self-reported usage patterns for library services provided by the main campus as well as locally in Jamaica was useful, and just as importantly, the library needed to collect quantitative measures about their satisfaction (or lack thereof) with library services. However, the library had also hoped to find evidence that Jamaican students were using the online databases for their research needs, particularly since international students did not have the same access to print resources as students in the United States. Unfortunately, the evidence provided by student usage data was mixed. Students were utilizing online resources more frequently than print resources, but the findings that students' use of more Web-based resource were related to using search engines rather than the library's subscription databases, served as indicators that students may still lack the necessary library skills needed to effectively use subscription resources online. Students reported being satisfied with their training. Moreover, student responses by academic program provided preliminary indications that when and how the library training was provided directly impacted students research behaviors and students perceptions about the

library's ability to support the university's mission. In the last analysis, however, the survey did not definitively address questions about whether the library's provision of electronic resources was making NSU students more or less successful in their pursuit for information.

What lessons can other libraries learn from this survey? Surveys are certainly useful for documenting students' satisfaction (or dissatisfaction) with library services. In addition, surveys can be used to substantiate students' patterns of library usage and can be used to assess whether the library is successful in supporting the institution's mission. Surveys can also be used for preliminary evidence to document students' skills in accessing library research materials provided online as well as indicators of the effectiveness of library training efforts. In other words, surveys can provide evidence about a variety of student behaviors. For example, are students happy with the number of online resources? More importantly, is there evidence that students are using the library's online databases for research or are they primarily using search engines instead? Does the survey provide any evidence that the length of time spent on library training make a difference to students' research habits? In the long run, answers to these questions may help answer the underlying question of whether libraries are helping students to become more or less successful in locating information for their classes. The information gathered in library surveys about students' attitudes and behaviors with respect to library services and resources is critical if libraries are to successfully identify weaknesses, and subsequently strengthen library services.

## Endnotes

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## **La Propriété Intellectuelle et Les Droits de L'utilisateur à L'information: Le Point de Vue Européen**

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*Les règles de la propriété intellectuelle en Europe reposent sur les lois de chaque pays adhérent et sur les directives de la commission européennes qui sont implémentées dans la législation de chaque pays par leurs parlements respectifs.*

*Deux directives concernent principalement les bibliothèques : la première sur le prêt de documents la deuxième sur le copyright. Elles peuvent avoir une incidence directe sur le mode de fonctionnement des établissements et sur l'accès des usagers à l'information.*

*Les professionnels des bibliothèques se sont organisés pour faire valoir leur point de vue et celui des usagers à travers leurs associations nationales qui ont créé EBLIDA dont le siège est à La Haye aux Pays-Bas. Cette association assure la veille d'information sur la législation européenne et son application, intervient auprès des instances européennes, assure la promotion du libre accès à l'information.*

La création de l'Union Européenne est le résultat d'une très longue maturation historique et d'une volonté politique très forte des gouvernements démocratiques. C'est l'aboutissement d'un très long processus qui a d'abord reposé sur le développement économique après la deuxième guerre mondiale dans les pays d'Europe de l'Ouest. Le traité de Rome en 1956 a rassemblé les six premiers pays (Allemagne, Belgique, France, Italie, Luxembourg, Pays-Bas), rejoints en plusieurs étapes par la Grande-Bretagne et la République d'Irlande, le Danemark, la Grèce, l'Autriche, la Suède et la Finlande, l'Espagne et le Portugal. Cette Europe des quinze vient encore de s'élargir par l'adhésion de dix nouveaux pays venant principalement de l'ancien bloc de l'est : les pays Baltes (Estonie, Lettonie, Lituanie), la Tchéquie et la Slovaquie, la Hongrie, la Slovénie, la Pologne, Malte, Chypre (partie grecque). Cet ensemble politique rassemble

désormais plus de 460 millions de citoyens sur le continent européen mais également en Amérique, aux Antilles, dans l'océan Atlantique et dans l'océan Indien et Pacifique.

D'autres pays sont candidats: la Roumanie et la Bulgarie dans un premier temps, la Croatie et la Turquie ensuite et sans doute d'autres par la suite au fur et à mesure du développement politique de la démocratie en Europe, puisque c'est une des conditions essentielles pour participer à l'Union.

Cependant on peut noter que certains pays tout aussi démocratiques pour le moins ne se sont pas manifestés alors qu'ils sont à

l'évidence européens. Ce sont la Suisse (et le Liechtenstein), la Norvège et l'Islande.

La question de l'adhésion des autres pays des Balkans se posera également.



*L'EURO*: Parmi les pays de l'Union beaucoup ont adopté une monnaie commune : l'Euro. Ce sont : les six pays fondateurs et l'Irlande, l'Espagne, le Portugal, la Grèce, la Finlande, l'Autriche. D'autres sont en passe de le faire dès que les conditions économiques seront remplies.

La construction européenne est d'abord la volonté politique des Etats, les citoyens ont été consultés soit directement par référendum soit indirectement par leurs représentants élus. Cela s'explique en partie par le fait que l'Europe comme d'autres entités géographiques ou politiques n'échappe pas aux courants nationalistes, régionalistes ou démagogiques qui pourraient faire front ponctuellement sur des objectifs particuliers ou à court terme, risquant de mettre ainsi en cause une construction de longue haleine par étapes patientes et dosées.

L'Europe a bien sûr existé avant cela de César à Napoléon en passant par Charlemagne ou Charles Quint mais elle ne concernait que des dirigeants et des sujets. Alors que le projet actuel est basé sur le développement économique et politique lui permettant de prendre sa place dans le monde et de participer ainsi au concert mondial.

Enfin il semble évidemment que l'histoire de l'Europe conduit ses citoyens à souhaiter la paix et la liberté.

*Les institutions européennes* reposent sur quatre piliers:

*Le conseil des Etats* ou siègent les chefs de gouvernements qui prennent les décisions politiques et arrêtent les grandes orientations. Un Etat préside pour six mois l'Union, actuellement la République d'Irlande.

*La commission européenne* est l'exécutif. Elle rassemble des commissaires chargés d'un dossier particulier, ce sont des ministres en fait. La commission est présidée actuellement par l'Italien Romano Prodi. Elle établit des directives concernant tous les aspects des traites. Son siège est à Bruxelles.

*Le parlement Européen* délibère et donne des avis et prononce des recommandations, il entend la commission sur toutes les questions, mais il n'a pas encore de vocation législative. Son rôle sur la prise de conscience de l'Europe auprès des citoyens est cependant très important et son influence va se développer avec la nouvelle constitution. Il siège alternativement à Strasbourg et à Bruxelles.

Les prochaines élections ont lieu au mois de juin 2004.

*La cour Européenne* de justice destinée à arbitrer les conflits entre les membres siège à Luxembourg.

Un projet de *constitution européenne* a été élaboré et doit être soumis à l'approbation des citoyens suivant des modalités adaptées à la constitution de chaque membre adhérent.

*Le traité de l'Union* prévoit l'établissement d'un marché intérieur unique l'instauration d'un système propre à empêcher les distorsions de concurrence. L'harmonisation des dispositions législatives de chaque état membre contribue à cet objectif.

Actuellement lorsque la commission européenne élabore une directive celle-ci doit être obligatoirement appliquée dans chaque état et donc soumise à chaque parlement. Une directive se compose de modalités obligatoires et de recommandations laissées à l'appréciation de chaque gouvernement et de chaque parlement. Il peut donc y avoir des différences d'un état à l'autre mais la base, les principes seront les mêmes partout.

### **La société de l'information**

L'avènement des nouvelles technologies de l'information implique de nouvelles méthodes de travail dans les domaines de la culture et de la recherche. La Commission européenne a souhaité intervenir pour favoriser l'application des ces nouveaux outils. Outre le programme de recherche «pour une société de l'information conviviale», l'initiative « e Europe » vise à rapprocher la société de l'information du citoyen européen. Des programmes d'action ont été adoptés en matière d'administration (« e Content ») et d'éducation (« e Learning »). Le programme «eContent» favorise les entreprises ou les administrations désireuses d'améliorer l'accès aux informations provenant du secteur public, de développement d'un contenu multi-culturel et de dynamisation du marché du contenu numérique. Le programme «eLearning» soutient le développement de l'utilisation d'Internet et des multimédias dans le cadre des établissements de formation et d'éducation.

Consultez le site : <http://europa.eu.int/>

*Le droit d'auteur et la propriété intellectuelle* sont des concepts relativement récents qui se sont développés surtout à partir du siècle des lumières. C'est au dix-neuvième siècle que les différents états européens se sont dotés de

législations protégeant les auteurs et leurs assurant la propriété morale et le droit d'exploitation de leurs œuvres. Ceci est à mettre en parallèle avec la protection de la propriété industrielle et le dépôt des brevets. Des différences parfois notables existaient entre les pays de tradition politique anglo-saxonne, française ou plus récemment soviétique. L'Union Européenne avait donc pour tâche d'harmoniser ces différentes approches dans le contexte du marché unique.

Enfin, il faut évidemment souligner que le double développement de l'industrie audiovisuelle qui repose sur la création littéraire, musicale et artistique et celui des technologies de l'information et de communication permettant la reproduction de masse et la transmission à distance instantanée à travers le réseau mondial ou par le stockage sur des supports électroniques sont venus fortement perturber les pratiques éditoriales traditionnelles au profit de la communication et de l'information. Cette situation ne pouvait rester sans réponse de la part des états en général et de l'Union Européenne.

La commission européenne fut d'ailleurs soumise à un intense mouvement de pression (lobbying) de la part des producteurs audiovisuels, éditeurs de musique, éditeurs d'imprimés aux moyens considérables et aux intérêts pour une fois convergents.

Dans le même temps une réflexion sur les échanges mondiaux d'informations et le commerce des industries culturelles commençait dans le cadre de l'organisation mondiale sur le commerce (OMC/WTO). Les organisations de bibliothécaires et notamment la FIAB (IFLA) ont pris des positions rappelant toujours la nécessité de garantir le droit de l'utilisateur au libre accès à l'information dans tous les pays.

Concrètement cela a amené la commission européenne à élaborer deux directives qui concernent directement les pratiques des bibliothèques et le droit à l'information.

#### **La directive concernant le droit de prêt:**

La première publiée il y a maintenant dix ans concerne le droit de prêt en bibliothèque. Elle indique que les états membres doivent prendre toute disposition pour assurer une rémunération ou un dédommagement aux auteurs pour le prêt des ouvrages en bibliothèque. Il s'agit donc du principe de base qui est désormais appliqué dans la plupart des pays de l'Union, et donc, par exemple, en France où cela a fait l'objet de discussions vives

et intenses entre les pouvoirs publics, les auteurs, libraires, éditeurs et associations de bibliothécaires. Cela a permis d'aboutir au vote d'une loi prévoyant le versement de compensations aux auteurs et aux éditeurs mais concédant légalement le droit des bibliothèques à prêter gratuitement, ce qui constitue dans mon pays une avancée importante pour reconnaître le rôle éducatif et culturel des bibliothèques. Ces dispositions sont désormais appliquées dans la plupart des pays d'Europe à l'exception des Pays-Bas où une légère contribution est demandée aux usagers à titre expérimental. En France la contrepartie de la négociation fut la limitation des remises à 9% consenties aux bibliothèques sur leurs achats de livres pour permettre le maintien d'un réseau de librairies de proximité dont la contribution à la vie culturelle est ainsi reconnue.

Dans tous les pays de l'union les débats ont été souvent vifs et passionnés lorsque les interventions des éditeurs ont semblé excessives ou lorsque les gouvernants n'étaient pas suffisamment conscients des enjeux éducatifs et culturels. Dans beaucoup de pays pourtant des mesures raisonnables ont été prises et cela a pu servir d'exemple pour les autres ou les mesures les plus négatives dictées par un dogmatisme économique libéral mal équilibré ont failli être arrêtées. C'est aussi cela la dynamique de l'Union où chaque pays doit confronter sa propre culture politique à celle des autres et cela peut assez souvent jouer dans un sens progressiste et rationnel.

#### **La directive concernant le droit d'auteur:**

La deuxième proposition de directive est sans doute la plus importante au regard des conséquences qu'une application guidée par les seuls intérêts économiques à court terme pourraient avoir sur le droit à l'information. Son principe a été adopté par le conseil et le parlement en mai 2001. Elle aurait dû être implémentée dans les législations des membres en décembre 2002. Elle concerne «l'harmonisation de certains aspects du droit d'auteur et des droits voisins dans la société de l'information».

Cette directive s'appuie sur des réflexions dont certaines ont déjà été évoquées notamment les incidences du développement des techniques modernes de reproduction et de communication. Elle assure la prééminence du droit d'auteur et en définit les contours et les modalités de communication. Elle présente le droit d'auteur comme un élément de la propriété permettant de poursuivre tout travail

créatif et permettant la diffusion du savoir et de la culture.

La directive s'adresse aux auteurs bien sûr mais également aux artistes et interprètes, aux producteurs de phonogrammes et de films et aux organismes de radio.

En matière de reproduction les auteurs gardent le droit exclusif d'autoriser ou d'interdire la reproduction totale ou partielle de leurs œuvres (article 2).

Même principe pour le droit de communication au public et de distribution (Articles 3 et 4).

Dans le cadre de ces principes d'harmonisation des législations la directive laisse à chaque membre la possibilité d'adapter leurs lois pour autant qu'elles ne portent pas atteinte au fonctionnement du marché intérieur. Pour cela la directive fixe précisément la liste des exemptions possibles notamment pour l'utilisation à des fins d'enseignement ou de recherche, pour les bibliothèques et les archives, pour des comptes-rendus d'actualité, des citations, pour les personnes handicapées, ou à des fins de sécurité publique et de procédure judiciaire.

Cette liste d'exemptions possibles est suffisamment large pour que les bibliothèques, établissements d'enseignement et archives puissent continuer à jouer leur rôle normalement auprès de leurs usagers à condition que les états respectifs adoptent un minimum de ces dispositions. Pour les pays qui ont commencé leur travail d'implémentation (beaucoup sont en retard par rapport à la date de décembre 2002 prévue et des procédures de pénalisation ont d'ailleurs été lancées contre eux) la plupart ont adopté des dispositions à peu près correctes en faveur des usagers des bibliothèques.

En France le projet de loi déposé par le gouvernement actuel qui est cours de discussion devant le Sénat prévoit une seule exemption partielle en faveur des handicapés. La position du gouvernement consiste à dire que ce sont des dispositions contractuelles négociées par chaque établissement avec les propriétaires de droit qui doivent être prises. Cela choque profondément les associations de professionnelles qui voient là une remise en cause des principes de l'égalité républicaine pour chaque citoyen et dont les établissements ne peuvent assumer financièrement les conséquences financières de telles dispositions comme cela est déjà démontré pour les bibliothèques universitaires pour l'accès aux ressources électroniques malgré l'organisation en consortium.

Les associations de bibliothécaires se sont donc regroupées pour intervenir auprès des élus et des pouvoirs publics, parmi lesquelles notamment l'ABF, l'ADBS, l'ADBU (bibliothécaires français, documentalistes et directeurs de bibliothèques universitaires).

Pour en savoir plus : <http://www.abf.asso.fr/>

Et:

<http://europa.eu.int/scadplus/leg/fr/lvb/l26053.htm>

*Texte de la directive en français :*

[http://europa.eu.int/smartapi/cgi/sga\\_doc?smartapi!celexplus!prod!DocNumber&lg=fr&type\\_doc=Directive&an\\_doc=2001&nu\\_doc=2932001L0029](http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=fr&type_doc=Directive&an_doc=2001&nu_doc=2932001L0029)

*Directive 2001/29/CE du Parlement européen et du Conseil du 22 mai 2001 sur l'harmonisation de certains aspects du droit d'auteur et des droits voisins dans la société de l'information  
Journal officiel n° L 167 du 22/06/2001 p. 0010 - 0019*

#### **EBLIDA :**

L'une des conséquences positives de la mise en place des dispositions européennes en matière de droit à l'information fut la prise de conscience des professionnels de la nécessité de se regrouper au niveau européen pour faire valoir leur point de vue, participer aux débats intercommunautaires et équilibrer par leurs interventions le lobbying intense auxquels se livraient les communautés d'intérêts économiques et commerciaux notamment les grands éditeurs internationaux avec des moyens importants d'intervention.

Eblida (European bureau of library information and documentation associations) est une association parapluie associant les organisations professionnelles de la plupart des quinze pays de l'Union en 1992 date de sa création. Elle regroupe aujourd'hui 38 membres de plein exercice et de 122 membres associés et ne cesse de se développer avec l'arrivée de nouveaux pays.

Son siège est à La Haye aux Pays-Bas.

Président : Jan Ewout van der Putten, néerlandais.

vice-président : Pedro Hippola, espagnol.

Directrice : Maria Pia Gonzalez Pereira, espagnole.

Son conseil exécutif est composé de dix membres élus des différentes associations adhérentes. Il se réunit trois fois par an.

**Ses missions:**

Promouvoir et défendre les intérêts des bibliothèques et des services d'information,

Intervenir au niveau européen auprès des différentes institutions européennes ou internationales,

Travailler en partenariat avec d'autres organisations proches.

Aider et encourager les associations membres dans leurs actions auprès de leurs gouvernements et pouvoirs publics.

**Ses objectifs:**

Renforcer l'influence des bibliothèques et services d'information en Europe,

Identifier et analyser la politique européenne en matière d'information et intervenir pour la prise en compte de positions d'Eblida.

Etendre son influence auprès des nouveaux adhérents.

Eblida est désormais consultée régulièrement par les instances européennes.

Eblida se construit petit à petit et elle se crée sa propre culture et expérience politique qui la font devenir une véritable association professionnelle européenne.

Pour en savoir plus : consultez le site de :

Eblida: <http://www.eblida.org/>

**Conclusion :** La construction d'une nouvelle entité politique comme l'Union Européenne peut être considérée comme réellement enthousiasmante pour des citoyens convaincus qu'elle se fait dans le but d'assurer à ses habitants un espace démocratique de paix, de liberté et de prospérité. Ceci pour contribuer à la stabilité et à l'équilibre mondial.

Cela ne peut se faire facilement puisque chaque élaboration nouvelle peut être l'occasion de remise en cause d'équilibres chèrement acquis au cours de l'histoire sociale et économique ou des conservatismes.

Beaucoup de professionnels de l'information et des bibliothèques sont heureusement convaincus du rôle fondamental de l'éducation, de la culture et de l'information dans le développement de citoyens responsables prenant une part active à la vie démocratique. C'est pourquoi ils défendent avec conviction à travers leurs associations nationales, européennes et mondiales les principes universels du droit d'accès à l'information libre et à un équilibre juste entre ce droit et le droit d'auteur et de la propriété intellectuelle.

**Discussion**

Two questions were posed from the floor after the presentation. The first was from Dr. Wallace Koehler, School of Library and Information Science, Valdosta State University, Georgia, USA. He wanted to hear a bit more about copyright.

The second question was from Patrick Tardieu, Bibliothèque Haitienne des Pères du St. Esprit, Port-au-Prince, Haiti. He spoke of the dichotomy in the Caribbean of giving priority to moral rights as opposed to copyright an approach that differed from the European handling of intellectual property rights.

Briand responded by acknowledging that the European Union was concerned with moral rights and mentioned that the author is able to pass on his rights to others such as a distributor. The author, as the sole owner of the work, passes on these rights to relatives when he/she dies.

He concluded by agreeing that the EU is also concerned with the separation of moral rights and the right to use the work.

(Notes by Gracelyn Cassell (Montserrat))



## **Electronic Information Resources: Challenges of Collection Development for Small Academic Libraries**

Dorothy M. Palmer

*The University of the West Indies, Mona, Jamaica*

*The technological age is beset with a multiplicity of information resulting in information overload. As the plethora of information increases and the dynamism of the collection increases, the challenges faced by libraries and librarians are diverse. Librarians will have to grapple with the increasing number and expanding range of electronic resources. These resources form a crucial part of any academic library and offer both an opportunity and a challenge for the library as this relates to specific activities such as: selection, storage and cost. Concomitant with the development is the networking of the environment to provide increased resources and access such as a twenty-four hour a day access.*

*A great deal has been written and published on various aspects of collection development both as this relates to print and non print areas. Wortman (1989) articulates that a collection development programme is important and must be one that includes all aspects that are directly connected with the “development and maintenance of a library collection. In any collection development programme the realism is that librarians must look at all the available resources and make sure that all the various stakeholders are satisfied as the library’s aims and objectives are being achieved. With the varied and diverse types of materials, such as print and non-print in the collection it is important for the collection to be properly organized and managed so that there can be a level of cohesiveness within the collection as well as accessibility of the collection. The library should include some policy or guideline for the collection development. White and Crawford (1997) list certain aspects as being crucial to the development of any policy, these include: the relevance and potential use of the information, demand of the information, availability and accessibility of the information, lifespan of the information and the ease of use as well as the cost.*

*Electronic resources such as commercial databases and web-based resources are for the most part replacing the traditional print resources or databases which are accessed manually. The challenges while not insurmountable are many and must be addressed with some level of efficiency; there is the unstructured nature of the web, the insufficiency of proper guidelines or precedents and what is sometimes alarming the disappearance of or radical changes of some of the resources. The building of electronic resources in an academic library while having various pitfalls is a necessity if the library is to serve the needs of all its clients and to remain relevant. Libraries must therefore show a willingness to respond to these changes in the international community and the knowledge age society.*

The technological age is beset with a multiplicity of information resulting in information overload. These resources are usually a crucial part of any academic library and offer both an opportunity and a challenge for the library as these relate to specific activities such as: selection, storage, and cost. Concomitant with the development is the networking of the environment to provide increased resources and access.

Wortman (1989) articulates that a collection development programme is important and must be one that includes all aspects that are directly connected with the “development and maintenance of a library collection”. In any collection development programme the realism is that all the available resources must be assessed, organized and managed so that there can be a level of cohesiveness within the

collection as well as accessibility to the satisfaction of the various stakeholders.

Electronic resources such as commercial databases and web-based resources are for the most part replacing the traditional print resources or databases which can be accessed manually. These resources have increased at such a rapid pace and are now seen as playing a critical part and enjoying an unprecedented level of importance in the present technological age. For example 2 million records from the more than 53 million records in the WorldCat database have been available via Google since November 2003. As the changing environment evolves, it is important for libraries to be adaptive to the various resources so as to satisfy the needs of all the various stakeholders.

It may be argued that the rapid pace of these changes has caused certain areas of concern,

which are not insurmountable, but must be addressed with some level of efficiency. Some of the challenges include the unstructured nature of the web, the lack of proper guidelines or what is sometimes very disturbing the disappearance of or fundamental changes of some of the resources. The building of electronic resources in an academic library while having various pitfalls is a necessity if the library is to serve the needs of all its clients and to remain relevant. Libraries must therefore show a willingness to respond to these changes in the international community and the knowledge age society.

There are varied formats which can be cited and for this paper will include CD-ROMS, Internet sources including online databases whether fee-based or free, magnetic tapes and various other gateways and search engines. The Internet resources can be described as versatile and include materials that have been digitised, but there are also other materials that have been specifically developed for the web and these would include student courses or even tutorials. The tables in the appendix will show the increased use of the Internet as this relates to the Caribbean. In looking at the Internet usage in the world regions the United States shows the largest penetration of 66 percent but the Middle East and Latin America and the Caribbean show the highest user growth between the period 2000-2004, these were 174.5% and 174.0%. In looking at the Caribbean and the population penetration we found that 50 percent of the countries had 10 percent or more Internet penetration.

Collection development has always been a critical component in the library's history; it was at one stage referred to as acquisitions department. This notion has changed in most libraries as one recognizes that this is more than acquiring the material and so involves various processes. The literature has been quite extensive as this relates to collection development and electronic resources. However most of the literature tends to engage the theoretical aspects and only few persons such as Demas (1994) has articulated the practical aspects. Demas in looking at collection development shared his practical experience by examining the project at the Mann library.

In defining collection development, Wortman (1989) sees collections as involving both the print materials and online information and advocates that there should be some level of integration among print and non-print materials. Demas (1994, p.71) defines collection building as "the systematic building

of a set of information resources to which the library finds access." Both definitions are quite relevant within an academic library since there will be print and non-print material. The notion that there is some well defined plan to build up a collection is also based on the experience which Demas had in the collection development programme within the Mann library, and of course, access cannot be overemphasized as this is very important, and is really the main purpose of a collection. Demas argues that the principles pertaining to collection development and in particular electronic resources will not change a great deal from those that operate in the print arena. These principles should be in tandem with the mission of the library and by extension with the mission of the parent organization.

While there are varying components to collection development, the literature has highlighted collection development policy as playing a key role within any collection development strategy as this is a reflection of the library's role and commitment to the serving of its users. Policy is seen as vibrant and effective and should be reviewed periodically since we operate in a dynamic environment where changes are always taking place. This review of policy is emphasized in the literature and also the necessary changes should be made to reflect the dynamism of the environment. The collection is usually regarded as a reflection of the mission and policy of both the library and the parent organization. The literature has shown different views on what type of policy should be involved and discusses detailed written policy versus shortened statements or verbal understandings. Hagen (1995) does not see the need for the usual written policies and really thinks that these policies were no longer necessary; instead he advocates the use flexible statements having the information in a certain format. Norman (1997), spent some time examining the literature and conference presentations on collection development and electronic resources. He also contacted 18 collection development librarians from collection development listserv. He studied the operations of 15 academic libraries where the librarians had completed the questionnaires. These libraries were classified in terms of students' enrolment and consisted of 12 large (10,000-20,000 enrolment) or very large (over 20,000 student enrolment), and 3 small (less than 10,000 enrolment). Norman noted that some libraries do not have a collection development policy for electronic resources and found that 50% of the libraries surveyed had a

collection development policy for electronic resources, the other 50% had it incorporated into the overall policy.

The articulation of written versus verbal policy has been examined in the literature. Written policy has certain advantages in that it can address in a systematic way the selection of new materials, it also provides the necessary guidelines pertaining to the acquisition of, and access to new electronic resources such as databases, Internet sites. Policy is especially important in an academic library, and should really form the genesis of the library's collection development strategy. This strategy must reflect the needs of the various stakeholders within the university such as faculty, students and administrators and must also be able to respond to the changes in programmes. Policy is guided by identifying subjects, users, define the range of material, identifying sources such as bibliographical. Demas describes the operations at Mann University as "mainstreaming" which is the process of integrating all the new modes and forms of information into the existing collections and policies, and operations of the library. Demas also recognizes that in order for this "mainstreaming" and the integration of electronic resources to be realised, staff has to acquire new skills in the required areas of selection, cataloguing and providing the necessary access. Other aspects of collection development include a plan or operational plan, budget and the selection process. Budget is another important area the collection development scenario. Budget is also a reflection of the library's goals and objectives and should be adequate as it is necessary for long term planning and development of the library's operations. The functioning of the budget must be carefully monitored especially as this relates to the various electronic resources. Selection is an important aspect of the collection development and involves some of the following processes: Identification of items that are needed in the collection, Relevance to the users and the need to link both users and materials.

In looking at the electronic resources at The University of the West Indies, Mona, Jamaica the following was observed. The home page of the library lists the various electronic resources available and these include: Online catalogue, databases, journals, subject portals, Jamaica and Caribbean Resources, General Reference Resources and Search Engines. Online catalogue is a reflection of the library's holdings and includes the local collection of books,

pamphlets, periodicals, theses and studies, conference proceedings in both print and non-print formats. The online catalogue gives the author, title, subject headings and general keyword. The search can be done by word or phrase, combination search or Expert- Boolean Search.

The online electronic journals are filed alphabetically by titles and represent the different subject areas that are needed by faculty and students. These journals are further categorized into subject portals. For example, in the education field there are 9 journals in the Education portal, which represents 2.57 % of the total education journals that are available by subscription. These A-Z electronic journals lists include full-text journals from publishers with whom the library has subscriptions to the printed versions, and also includes free journals that are accessible via the Internet. There are approximately 350 journals that are available on the web. In focusing on the journals within education there were 13.6 percent were available as electronic journals, more than half 54.6 percent were available as full-text in EBSCO and less than one third, 31.8 percent were available in print only. (The electronic journals page clearly states the restrictions that apply to them such as Available from UWI Mona campus.) This is one of the policies of the vendors that only persons who are authorized i.e. registered students and staff to use these journals can get access to them.

In accessing the databases the terms of conditions in the licensing agreements were clearly stated and only bona fide students and faculty are allowed to access these facilities. The selection of the databases was chosen for the most part by the campus librarian with the input of some members of faculty. The 12 vendors provided some 20 plus international databases representing different subject areas that cater to the needs of students including those who are distant learners, faculty, both for teaching and research. The databases include abstracts as well as full-texts. Some of the databases include: Cambridge Scientific Abstracts which covers the following disciplines: Social Sciences, Biological and Medical Sciences, Environmental Sciences and Computer Technology. EBSCOHost Research Databases provide access to five databases. These include the Academic Search Premier which has full-text to some 4000 scholarly journals. Of these, 77.5 percent were peer-reviewed journals. Emerald Full-text and FirstSearch from OCLC lists some 8 databases

but claims it provides access to more than 15 databases which includes Wilson Select Plus, ERIC, MLA and WorldCat, Popline, ProQuest, and STN International. Norman in his research found that the libraries spend between 1 percent and 20 percent of the materials budget on electronic resources, I was not able to ascertain the percentage of budget used for these databases but was told that was quite high and had impacted negatively on the materials budget. EBSCO has some 5 databases covering various subject areas and in the Academic Search Premier are some 4,000 full-text periodicals of which 75 percent are peer reviewed. First Search from OCLC provides access to more than 15 databases in various subject areas, including education, science, medicine, MLA indexes of books, dissertations in language and linguistics, Worldcat (OCLC catalogue of books and web resources). In the education field, there is ERIC and Wilson-Select Plus. The latter database is especially used as it provides full-text articles in the education field. There are also some local databases, which provide valuable information in the various fields. These include CARDIN, which is a Caribbean database and is a part of the Caribbean Disaster Information Network, Medicare, West Indiana, and the UWI Library Staff Publications. These also either list the publications or in some cases have abstracts but do not have full-texts.

*Issues:* Ease of selecting multiple topics, access is almost immediate to accessing the end product or information, availability of multiple indexes, which allow search to be carried out simultaneously. The format allows the updating to be effected more frequently than print.

*Weakness:* Many of the networked resources are incomplete with some outdated, some of with sites which are not reliably maintained and poorly organized; difficult to keep up with the various changes. There are not many local resources found in these databases. It is not

always easy for the patrons to access the information, sometimes there is the need for the person searching to understand the keywords used. The Internet highway is unruly and needs to be organized. Younger (2002) cites the system as unwieldy and needs to become more user-friendly especially as this relates to the more complex web applications. Electronic resources can be customised to match the library's organization and user needs. There is a lot of time and energy required by the staff in acquiring and accessing the data. There are also the issues of the cost of electronic resources now becoming exorbitant as well as the high cost of printing of articles. Some scientific electronic journals do not include charts and graphs, which are important.

At the School of Education, Documentation Centre Library, UWI, Mona, Jamaica we are creating a Caribbean Database (CDS/ISIS) which will comprise all the Caribbean education publications that are in the Centre. We are in the process of inputting and editing some of the data and have started by focusing on the theses, dissertations and Caribbean Studies. The latter are those done by the Bachelor of Education students in their final year. The real challenge is for the regular staff to index and do the abstracts for the articles while continuing the normal flow of work. In indexing the articles we use of the ERIC descriptors instead of the Library of Congress subject headings. There are times also when we have to use our local terminology instead of those given in the thesaurus and make the necessary note.

Electronic resources are here to stay and will continue the rapid growth. Librarians have to be able to collect information instead of the usual collection building. Staff will therefore have to develop new skills in order to be able to maximize these resources; these involve search strategies and techniques, cataloguing, negotiating and teaching skills.

### Internet Usage Statistics for Caribbean Countries

Country	Population (2004 Est.)	Use Growth (2000 – 2004)%	Penetration (% Population)
Anguilla	12,600	0.0	7.3
Antigua & Barbuda	70,700	100.0	14.1
Antilles, Netherlands	270,300	0.0	0.7
Aruba	69,400	500.0	34.6
Bahamas	325,500	358.0	18.4
Barbados	264,800	400.0	11.3
British Virgin Islands	22,700	N/A	N/A
Cayman Islands	48,800	0.0	16.0
Cuba	11,914,700	100.0	1.0
Dominica	70,400	525.0	17.8
Dominican Republic	8,545,300	445.5	3.5
Grenada	94,200	265.9	15.9
Guadeloupe	444,900	150.0	4.5
Haiti	8,666,200	1233.3	0.9
Jamaica	2,684,000	900.0	22.4
Martinique	393,400	700.0	10.2
Montserrat	7,600	N/A	N/A
Puerto Rico	3,981,300	200.0	15.1
St. Kitts & Nevis	38,300	400.0	26.1
St. Vincent & The Grenadines	122,400	100.0	5.7
St. Lucia	160,500	333.3	8.1
Trinidad & Tobago	1,301,700	38.0	
Turks & Caicos Islands	19,300	N/A	N/A
Virgin Islands (US)	122,600	41.7	13.9

**Source:** <http://www.internetworldstats.com/stats.htm>

### Internet Usage Statistics for World Regions

Region	Population (2004 Est.)	Use Growth (2000 – 2004)%	Penetration (% Population)
Africa	905,954,600	123.6	1.1
Asia	3,654,644,200	107.0	6.5
Europe	728,857,380	102.8	28.1
Latin America & The Caribbean	39,651,600	276.7	5.3
Middle East	259,166,000	174.5	5.6
North America	326,695,500	109.5	69.3
Oceania	31,892,487	105.5	49.1

**Source:** <http://www.internetworldstats.com/stats.htm>

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### Discussion

- Caution at the acquisition of CD-ROMs and DVDs as hardware to utilize these must be present.
- Online resources can be identified in collaboration with Faculty.  
For the collection development in subject areas the Faculties can assist.  
For identified online resources a trial can be purchased before subscribing.
- The issue of duplicating to reduce the costs is not recommended.
- For Jamaica – the cost of online databases is prohibitive and therefore articles are downloaded from the Internet and printed.

(Notes by Jane W.F. Smith (Suriname))

# A HAPI Solution for Indexing Latin American and Caribbean Journals

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*The article discusses the role of the Hispanic American Periodicals Index (HAPI) in offering print and electronic access to current and historical information found in scholarly Latin American and Caribbean journals published throughout the world. It highlights the Caribbean journals indexed in HAPI and identifies major topics of research on the Caribbean treated by materials published both in and about the region.*

*Following an overview of the project as a whole, the article focuses on two key aspects of HAPI's success over the years: collaboration in the form of a worldwide network of contributors who supply much of the basic indexing data, and automation. Produced from the outset in a computerized format, HAPI was able to take advantage of technological advances as they occurred. The development of the online database is discussed, from Telnet access to full text links, as well as plans for future site enhancements and technological advancements.*

## Overview of the Hispanic American Periodicals Index (HAPI)

The *Hispanic American Periodicals Index* is a Web-searchable database and annual publication produced and published by the Latin American Center at the University of California, Los Angeles (UCLA). It provides access to materials in scholarly journals treating Latin America, the United States-Mexico border region, and Hispanics in the United States as well as the Caribbean basin. Having coverage dating from 1970 to the present, the index includes complete bibliographic citations to articles, book reviews, original literary works, documents, and other materials appearing in approximately 550 periodicals published more than 35 countries throughout the world. Indexed journals are written in English, Spanish, Portuguese, French, German, and Italian.

Subject coverage encompasses all areas of the social sciences and the humanities from art, music, literature, and film to material on popular culture, human rights, ethnic and women's studies, politics, ecology, economics, business, and more. Only the pure and technical sciences are excluded.

Each item in the database contains, in addition to the bibliographic citation, up to four multilevel, English language subject headings drawn from the HAPI *Thesaurus*. The *Thesaurus*, which is updated annually, is based in turn on Library of Congress's *Subject Headings*, adapted to meet the specialized requirements of research on Latin America. *HAPI Online* is updated weekly and presently contains more than 260,000 records dating

from 1970 through 2003. About 7,500 new records are added each year.

## Journal coverage

The journals indexed in HAPI are selected by the editor on the basis of their scholarly value and representative coverage of editorial viewpoint, subject matter, and geographical area. They vary in publication frequency from monthly to annually. Weekly news magazines and newspapers are excluded, since these are indexed by other sources such as *Info-Latinoamerica*.<sup>1</sup> For the sake of continuity, the same titles are indexed each year.

Within the selected titles, only materials pertaining to the focused areas of research are indexed. Non-Latin American items are excluded, as are institutional news and other brief news reports. Regular features appearing in the journal under a uniform title are generally listed only once each year with the notation "All issues" and are assigned an inclusive subject heading. Hence, HAPI does not necessarily reflect a complete record of the contents of the publications it covers.

Book reviews were indexed in HAPI from 1976 through 2001. They were excluded from HAPI 1970-1975 because the material for those years was indexed retrospectively for a set of print volumes, and space constraints precluded their coverage. They were deleted again beginning in 2002 because reviews, once hard to find, are now readily available through a variety of web sites and other sources. More significantly, book reviews constituted nearly a quarter of the citations indexed in HAPI. Given these factors, it was determined that the index's finite resources would be better served by including

more substantive articles from a larger number of publications. As a result, 80 new titles, including six treating the Caribbean area, have been added in the last two years. The number will continue to grow until maximum annual record capacity, based on staffing availability,

is reached. Of course, even when that occurs, significant new journals will continue to be added, since each year old ones cease or are suspended.

Of the 295 journals indexed for HAPI 2003, fifty-six are published in the Caribbean basin.

**Table 1**  
**Number of Journals Indexed in HAPI 2003 by Region**

Central & South America (other)	76	Caribbean islands	15
U.S. and Canada	72	Venezuela	15
Mexico	55	Caribbean Central America	13
Europe, Israel and Australia	37	Colombia	12

Fifteen publications originate in the Caribbean islands, including five titles each from Jamaica and Puerto Rico, three from Cuba, and one each from Barbados and the

Dominican Republic. Another twelve journals published in the United States and elsewhere are devoted entirely or in part to Caribbean studies. These are shown in Table 2.

**Table 2**  
**Caribbean Journals Indexed in HAPI 2003**

Canadian Journal of L. Am. and Caribbean Studies	Islas
Caribbean Geography	Jamaica Journal
Caribbean Journal of Education	Journal of Caribbean Studies
Caribbean Quarterly	Journal of Eastern Caribbean Studies
Caribbean Studies	Journal of Haitian Studies
Caribe	New West Indian Guide
Casa de las Américas	Op. Cit.
CENTRO Journal	Revista de Ciencias Sociales (P.R.)
Conjunto	Revista de Estudios Hispánicos
Cuban Studies	Revista Mexicana del Caribe
Estudios Interdisciplinarios de America Latina y el Caribe	Small Axe
Estudios Sociales (D.R.)	Social and Economic Studies
European Review of L. Am. and Caribbean Studies	Wadabagei
Homines	



A list of the Caribbean-related journals arranged by country of publication and with their dates of coverage is given in Appendix A. It should be noted, however, that many other publications included in HAPI also print articles about the region.

#### *Caribbean subject coverage*

A geographical subject search conducted in March 2004 indicates that HAPI contains more

than 43,000 records treating the Caribbean basin, including Caribbean Central America, Colombia, Venezuela, Guyana, Surinam, and French Guiana. About 43% of the articles, more than 18,500 citations are specific to the Caribbean islands. The remaining search results focus on these.

**Table 3**  
**Geographical Subject Coverage of the Caribbean Basin In HAPI**

Caribbean Islands	18,530	Guyana	334
Caribbean Central	10,116	Surinam	175
Colombia	7,334	French Guiana	69
Venezuela	6,650		

Not surprisingly for an index in which nearly a quarter of the journals are published in the United States, Cuba dominates HAPI's coverage of the islands with nearly 7,000 records. Puerto Rico, a controversial territory of the US, is discussed in more than 2,000 articles. Jamaica, the Dominican Republic, and Haiti each have more than 1,000 entries. Most of the other islands are represented in the index as well, although in fewer numbers. Appendix B identifies all of the geographically related subject headings for the Caribbean area found in the HAPI *Thesaurus*.

Subject coverage of the region appears to be fairly equally divided between the humanities

and social sciences, as is true for the index as a whole. Within the social sciences, foreign relations (including economic integration) is the most widely researched topic, followed by politics. Articles on economic and commercial issues are next, followed closely by historical studies. Social issues are also heavily covered. Immigration and life in the diaspora constitute only about 3.5% of the total number of records on the region (661 entries), but this is a very high percentage compared to the database as a whole (.6%). The following table shows a rough breakdown of the major areas of social science research on the Caribbean indexed in HAPI.

**Table 4**  
**Leading Social Science Topics on the Caribbean in HAPI**

Foreign relations/economic integration	1,970
Politics	1582
Economics/commerce	1445
History	1403
Social issues	1080
Emigration/diaspora	661

## Collaboration

The ability to gather all of this information each year depends, to a large extent, on the collaborative nature of the project. HAPI is a very small organization. The staff consists of three full-time editors, two part-time programmers, a part-time clerical assistant, and an occasional part-time student editorial assistant. The index receives virtually no institutional support and must cover all its costs, including salaries, through income from sales. In order to survive, HAPI has, from its inception, relied on the voluntary support of outside contributors to supply much of the raw indexing data. Most of this support has been offered by SALALM (Seminar on the Acquisition of Latin American Library Materials), a US-based international organization of Latin Americanist librarians, booksellers, and information specialists founded in 1956.

Originally, members of SALALM's Committee on Bibliography helped expand the pilot project undertaken at Arizona State University in the early 1970s by indexing Latin American journals held in their institutional libraries. The organization also strongly supported HAPI's successful 1976 grant proposal to the National Endowment for the Humanities, which enabled the move to UCLA and HAPI's annual publication in the form seen today.

For many years, new contributors have been recruited through a published "Want List" of titles needing indexers appearing in the quarterly *SALALM Newsletter*, and, subsequently, through its listserv, LALA-L. When the contributor base expanded to the wider SALALM membership, HAPI was designated an official "affinity group" of the organization, enabling annual meetings at SALALM conferences to discuss procedural changes, indexing problems, and other relevant issues, as well as to personalize relationships.

All contributors are asked to analyze the articles appearing in the current issues of 6-10 journals per year. At the beginning of every indexing cycle, individual e-mails are sent to the indexers listing the journals for which they are responsible and the starting issue for each one. They receive a detailed instruction manual and a copy of the annually updated *HAPI Thesaurus* to guide them in their work. They also receive a template to download to their word processing system, which serves as a data collection form for each article. The indexing is e-mailed an issue at a time to the HAPI server for processing and editing by the HAPI staff.

Careful records are maintained to keep track of the material that has been received throughout the year. In mid-December, a new Want List is distributed to the indexers with requests for help to fill in missing issues and titles and to identify journals that may not have been published. The Want List is also checked against the UCLA Library's holdings and is posted on the SALALM listserv. Issues that can be located are indexed either by contributors or by HAPI staff. The rest are listed in HAPI's "Key to Periodicals" section on the Web site and printed volume as "not received" or "not published," depending on information obtained from the above sources.

HAPI 2004 is represented by 27 volunteers from the United States, Mexico, Argentina, and Spain. In the past, there have been contributors from the United Kingdom, Denmark, Venezuela, and Puerto Rico. In exchange for their assistance, indexers receive recognition for themselves and their institutions on the HAPI Web site and in the front of each annual printed index to which they have contributed. They also receive a personal password to the Web site and a copy of the printed books in which their names appear. While some contributors volunteer for only a year or two, many have been extremely loyal. Four of HAPI's current indexers have been participating in the program for over twenty years and another ten have been with HAPI for more than ten years.

### On-Line access

Along with collaboration, the other key element underlying HAPI's success is automation. Always a leader among automated reference services, HAPI serves as an example of the development of computer technology for small bibliographic products in the last 30 years. Although the index was originally published exclusively as a paper publication—and continues to appear in print today—it has been prepared from the outset in computerized format, making it relatively easy to convert to an online product when the technology became available.

A pilot project developed in the early 1970s used punch cards to input all-capital letter 99-character records using a heavily modified KWIC/KWOC program. Subsequently the index was prepared for many years on UCLA's mainframe computer using PL/1X programming language.

In 1991-1992, supported by grant funds from the US Department of State a copy of the database was adapted to MARC format in order to run on the UCLA Library's ORION system for Telnet accessibility. The Telnet service was released to the public in July 1992 and a licensed CD-ROM version, which also uses the MARC format, appeared the next year.

Beginning in 1996 and supported in part by a grant from the Andrew W. Mellon Foundation, HAPI underwent a major conversion to a networked PC system that enabled Web access using customized Filemaker Pro, Webstar, and Lasso software. The Web site became publicly available in September 1997, making HAPI one of the first small bibliographic databases to offer the service and certainly the first Web-searchable index specializing in area studies materials.

To meet the needs of a rapidly growing subscription base, the site has subsequently undergone extensive hardware and software upgrades, including the current transition from Macintosh-based production web servers running on Webstar to open-source Linux-based web servers running on a combination of Apache and MySQL. There have also been numerous programming enhancements to improve functionality over the years, and many more changes are planned or in progress.

Among the more interesting features of the present site is an online thesaurus and, to aid non-English-speaking users, translations of primary level subject headings into Spanish and Portuguese that will soon link directly to the Search page. Additional descriptor terms, which use an uncontrolled vocabulary and are indexed to both the title and subject search fields, are included as needed in the record to provide more access points to the information and to translate key words in non-English titles. Users can also opt to limit searches by language or to articles on Hispanics in the United States. HAPI allows researchers to e-mail bibliographies to themselves and offers an online order form for document delivery.

### **Full text availability**

HAPI's most recent advancement, released to the public in December 2003, offers full text links to many of the cited materials. There are two types of links. "Direct" links take users directly from the citation to the article. These are provided by JSTOR, a joint, non-profit endeavor of several major U.S. universities that digitizes full runs of scholarly journals in a variety of fields, and Ingenta, a commercial aggregator that digitizes recent issues of titles

from large publishers such as Sage and Carfax presses. Together, these sources provide direct links to full text articles in 18 English language journals, representing nearly 16,000 articles indexed in HAPI as of December 2003. Of course, only individuals whose institutions subscribe to the services will be able to take advantage of these links free of charge.

Access to many more full text articles, most of which are published in languages other than English, are offered through what we call "indirect" links to publishers' Web sites. These links take the researcher from the citation in HAPI to the screen showing the available full text issues of the journal. Users must then follow the site's instructions to reach the article itself. To date, 63 publishers' web sites have been identified, totaling approximately 8,000 indexed records. Copyright is not an issue because HAPI links only to Web sites that are open to the public.

As of March 2004, nearly 1,900 articles on the Caribbean area were accessible in full text through either a direct or indirect link. This represents just over 10% of all the Caribbean-related articles in HAPI and compares favorably with the 9% overall full text availability of articles in the database as a whole.

Most publishers' sites are freely available, although a few, such as that of the Cambridge University Press, do charge for viewing articles. Similarly, if a researcher seeks an article offered by Ingenta to which his/her library does not subscribe, a notice will appear on the screen offering the item for a fee. In those instances, the user will have to decide whether the "pay" is worth the "view." The volume of document delivery requests received by HAPI, however, suggests that researchers are accustomed to paying for needed information that they can't obtain free of charge.

### **Leading edge**

HAPI's unique combination of links provides a centralized source of access to full text articles appearing in the mainstream English language journals most heavily used by undergraduate students as well as to a number of Latin American (and other) publications important for more advanced research that are not being digitized by commercial services. By harnessing readily available technology, HAPI has assembled probably the largest gateway to indexed full text articles on Latin America and the Caribbean area offered today.

The full text service will be an ongoing effort. More and more sites are expected to appear in

the future as publishers recognize the value of providing full text articles online, and these sites will be added as they become available. HAPI is also presently in discussions with representatives of ProQuest to help that company develop a collection of full text Latin American journals that will be linked to the index.

Moreover, as a by-product of the programming needed to implement the full text links, HAPI is

now poised for full compliance with current OpenURL protocols for information exchange. Open URL linking is the next objective in HAPI's ongoing efforts to maintain technological leadership among small databases. The service is expected to become available to subscribers by the end of this.

## **Appendix A**

Caribbean Journals Indexed in HAPI  
By Country of Origin and with  
Dates of Coverage

### *Barbados*

Journal of Eastern Caribbean Studies v. 28 (2003)--

### *Canada*

Canadian Journal of Latin American and Caribbean Studies v. 1 (1976)--

### *Cuba*

Casa de las Américas 10:58 (1970)--

Conjunto 3:9 (1970)--

Islas no. 35 (1970)--

### *Dominican Republic*

Estudios Sociales v. 3 (1970)--

### *Israel*

Estudios Interdisciplinarios de América Latina y el Caribe -- full text available, v. 1 (1990)--

### *Jamaica*

Caribbean Geography v. 2 (1985)--

Caribbean Journal of Education v. 23 (2001)-

Caribbean Quarterly v. 16 (1970)--

Jamaica Journal v. 4 (1970)—

Social and Economic Studies v. 19 (1970)--

### *Mexico*

Revista Mexicana del Caribe – full text available, 5:9 (2000)--

### *Netherlands*

European Review of Latin American and Caribbean Studies no. 47 (1989)--

New West Indian Guide v. 68 (1994)--

### *Puerto Rico*

Caribbean Studies 9:4 (1970)--

Homines v. 11 (1987)--

Op.Cit. no. 1 (1985-1986)--

Revista de Ciencias Sociales v. 14 (1970)--

Revista de Estudios Hispánicos v. 21 (1994)-

### *United States*

Caribe v. 4 (2001)--

CENTRO Journal v. 14 (2002)--

Cuban Studies v. 1 (1971)--

Journal of Caribbean Studies v. 1 (1980)--

Journal of Haitian Studies v. 8 (2002)--

Small Axe no. 11 (2002)--

Wadabagei v. 5 (2002)

## **Appendix B**

*Subject headings for Caribbean Articles  
In HAPI, 1970-2003*

Antigua

Arawak Indians

Aruba

Bahamas

Barbados

Barbuda

British Virgin Islands  
 Carib Indians  
 Caribbean area  
 Caribbean area in literature  
 Caribbean Community  
 Caribbean drama  
 Caribbean Free Trade Association  
 Caribbean literature  
 Caribbean poetry  
 Caribbean studies  
 Cayman Islands  
 Cuba  
 Cuba in literature  
 Cuban drama  
 Cuban literature  
 Cuban Missile Crisis, 1962  
 Cuban poetry  
 Cubans  
 Curacao  
 Dominica  
 Dominican drama  
 Dominican literature  
 Dominican poetry  
 Dominican Republic  
 Dominican Republic in literature  
 Dominicans (Dominican Republic)  
 Dominicans (Dominican Republic) in literature  
 Federation of the West Indies  
 Grenada  
 Guadeloupe  
 Haiti  
 Haiti in literature  
 Haitian drama  
 Haitian literature  
 Haitian poetry

Haitians  
 Indians of Cuba  
 Indians of Puerto Rico  
 Indians of the Caribbean  
 Jamaica  
 Jamaica in literature  
 Jamaican literature  
 Jamaican poetry  
 Jamaicans  
 Leeward Islands  
 Martinique  
 Montserrat  
 Netherlands Antilles  
 Nevis  
 Puerto Rican American drama  
 Puerto Rican American literature  
 Puerto Rican American poetry  
 Puerto Rican drama  
 Puerto Rican literature  
 Puerto Rican poetry  
 Puerto Ricans  
 Puerto Ricans in literature  
 Puerto Rico  
 Puerto Rico in literature  
 Saint Kitts  
 Saint Lucia  
 Saint Martin  
 Saint Vincent  
 Taino Indians  
 Trinidad and Tobago  
 Trinidad and Tobago in literature  
 Trinidadians  
 Turks and Caicos Islands  
 Virgin Islands of the United States  
 Wayampi Indians  
 West Indians

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# **Access to Health-Related Literature in the Caribbean: MEDCARIB/LILACS: a service delivery perspective**

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*This paper will look at the various collaborative attempts to organize the health related literature of the region, and initiatives by librarians to deliver quality information service to researchers in the field. The authors will concentrate on the MEDCARIB database, which has sought to index various types of documentation, including grey literature, from as early as the mid-1880s. Previous paper-based initiatives that gave coverage of the literature have evolved into a collaborative product that is now available on the web, giving widespread access to the regional health literature.*

*Cooperation and resource sharing among the 17 participating countries have been the hallmarks of this database. Challenges to maintain the database have arisen because of software incompatibility, lack of funding and other factors.*

*Some solutions to many of the issues raised will be offered. It is noted that the Virtual Health Library (VHL) model offers the MEDCARIB network possibilities for expanding products and services to users of Caribbean health information.*

## **Introduction**

Within the region, anecdotal reports have always pointed to the multiplicity of Caribbean health information produced but not formally organized for research by medical personnel and others. These materials existed in the form of various types of documentation including unpublished proceedings of conferences, presentations at seminars, official government reports, official speeches, newspaper reports, published research, unpublished records and other grey literature. Librarians in the field were also aware of the wealth of materials that emanated from the various health symposia held by specialist medical groups across the region, and miscellaneous serials published as early as the mid-1880s that served as organs of the medical research fraternity, and which incorporated important health research.

In this scenario, medical librarians faced the challenges of delivering quality information service to their communities. Organizing the various types of information in a systematic format, and providing quick and easy access and retrieval to users proved challenging. Over the years, levels of organization were achieved and have culminated in the provision of electronic access to Caribbean health information via the World Wide Web (WWW) today. These accomplishments were realized through the labour of health librarians in their respective areas of work and more lately through the collaborative initiatives of health librarians across the Caribbean and Latin American regions.

The Lilacs (Latin American and Caribbean Literature on the health sciences) and

MEDCARIB networks are therefore of Latin American and Caribbean origin, respectively. The networks were established to foster cooperation and resource sharing of health information in the region; to support health care programmes by providing current and comprehensive information; to stimulate the development of medical library information centers within the region; and to promote the use of information technology in the health area in the region. (<http://www1.sr.net/~t100373/medcarib/>).

Both the MEDCARIB and LILACS databases are thus products of regional cooperative initiatives. MEDCARIB comprises a bibliographic database of the literature in health sciences from the English speaking Caribbean countries, and indexes a wide range of documents such as books, chapters of books, theses, technical reports, congresses, conference proceedings and journal articles. LILACS was developed as a cooperative database product of the BIREME (Latin American and Caribbean Centre on health sciences information). Selection of materials for the LILACS database is narrower and comprises mainly articles from over six hundred well-established journals in medicine. Caribbean health sciences literature in LILACS constitutes a subset of the wider body of Caribbean literature in MEDCARIB. In this regard, and for purposes of this paper, the authors have thus chosen to focus on the MEDCARIB network, in so far as it has contributed to regional access to Caribbean health information at the broader level.

### *MEDCARIB – Collaboration past*

The MEDCARIB network was established with grant funding from W.K. Kellogg in 1990, as the Caribbean sub-regional network within the Latin American and Caribbean Health Information System coordinated by BIREME. The network was established with the participation of 16 English-speaking Caribbean countries and Suriname between 1991 and 1995.

The seventeen participating countries are: Antigua, Anguilla, Barbados, Bahamas, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts, St. Lucia, St. Vincent, Suriname and Trinidad & Tobago. Within each country, health libraries and libraries with health sciences collections functioned as participating centres, with one library unit functioning as the national coordinating centre. The University of the West Indies (UWI) Medical Library in Jamaica functioned as the regional coordinating centre.

The network of national coordinating centres in each of the seventeen participating countries input data, which the regional coordinating centre in Jamaica consolidated. This information was sent to BIREME for contribution to the MEDCARIB and LILACS databases. In the early 1990s, MEDCARIB was produced as an electronic database of health literature from the English-speaking Caribbean, and around 1997 it was made available on CD-ROM.

Criteria for selection of materials for the database remained broadly that of Caribbean literature in the health sciences. Conventional and unconventional, published and unpublished health literature produced in the Caribbean, about the Caribbean, and by Caribbean authors were indexed. It is noteworthy to record that seminal works like the "Index to Caribbean medical literature" compiled by the Medical Library Port of Spain, and the "Medical Caribbeana: an index to Caribbean health sciences literature" compiled by the Medical Sciences Library, Mona, were the very early initiatives to systematically organize the literature and would have served as secondary sources of information for initially building up the MEDCARIB database.

In terms of its subject scope the MEDCARIB database utilized health sciences descriptors based on the medical subject headings of the National Library of Medicine and supplemented by public health terms developed by BIREME. The LILACS indexing methodology was followed

and, the geographic scope of the entries was delimited by the countries of the English speaking Caribbean and Suriname.

This system basically described the functioning of the MEDCARIB network and the database. Access to regional health information on a broader scale was better enabled with automation. Countries, in which regional research institutions existed, like Jamaica, Trinidad and Tobago, and Barbados, were found to be the major contributors. A small research output from the smaller territories meant that contributions to the database were less in number, but ideally all countries had equal access to the total content of the database. In keeping with its broad selection criteria, the database was found to be useful to a wide group of health personnel including, practitioners, administrators, policy-makers, educators, researchers, and students.

### *MEDCARIB and the Virtual Health Library (VHL)*

The VHL proposal was presented by BIREME at the 6th Meeting of the Latin American and Caribbean Health Sciences Information System held in San José, Costa Rica, during the 4th Pan American Congress on Health Sciences Information on March 23-28, 1998. The proposal was approved unanimously by System members, together with the San José Declaration Towards the Virtual Health Library.<sup>1</sup>

The 1st Regional Coordinating Meeting of the VHL was held from November 30 to December 3, 1999, at the PAHO headquarters, Washington, D.C.<sup>2</sup>

Recommendations agreed upon for developing the VHL are based on the following principles:

- The pursuit of equitable access to health information
- Promoting alliances and consortia for maximizing resource-sharing
- Promoting cooperative work and exchange of experiences
- Decentralized development and operations at all levels
- Development based on local conditions
- Establishing and applying integrated mechanisms for evaluation and quality control.

According to the handbook for the development of the VHL, BIREME offered a dynamic model of cooperation and collaboration in health information for the region. In summary, the concept of the VHL aimed to bring all the

stakeholders – producers, intermediaries, and users of scientific and technical information in health to a common virtual space on the Internet. In terms of collaborative approaches for access to information, the model envisioned the convergence of producers, intermediaries, and users of scientific information expressed in practice as a dynamic information network created and operated through a cooperative and decentralized approach with explicit quality controls.

The VHL has also been described as both an evolution and legacy of more than 3 decades of cooperative work to expand and strengthen the flow of scientific and technical health information in Latin America and the Caribbean, under the leadership of PAHO, through BIREME. From the beginning, this cooperative work has been renewed continuously, based on new models for managing, organizing, and handling information.<sup>3</sup>

Both the LILACS and MEDCARIB databases are guided by the principles above and are now cooperative products of the VHL. From 1999 to the present, BIREME has hosted the MEDCARIB database on the VHL website and the network comprising the 16 English speaking countries and Suriname, has been operating with a structure of administration that has also evolved to reflect the decentralized approach. In terms of the development of the database, participating libraries could now input directly into MEDCARIB via the LILDBI-web software. Easier development of the regional products and sharing of resources were better facilitated.

### **Service Delivery**

The development of the MEDCARIB database as a product of the VHL has been a most important step in strengthening accessibility of Caribbean health information for users. The demand for Caribbean health information remains high, and medical professionals in the field welcome the existence of this type of database, and are expectant of having their research queries met and their publications archived by libraries.

In the context of service delivery, MEDCARIB on the Internet offers the researcher an enhanced set of services in the form of advanced searching techniques; access to a number of indexes for the control of search terms; and a range of search fields that allows the user to search for material according to selective elements of description. Users can also configure results according to different output formats and language; and the option to search additional regional health databases is provided.

In addition to the MEDCARIB database the VHL environment offers the researcher a portal to a number of products and services. The SciELO project - Scientific Electronic Library Online, enables access to full text journal articles published using the SciELO methodology and indexed in relevant databases. SCAD - Cooperative Service for Accessing Documents, is a document delivery service. Thus users are able to purchase an article required but held outside of their library. Users can also link to major international health resources on the Internet, like MEDLINE and the Cochrane Library, from this common space. Further access is also provided to the regional health databases, such as PAHO (PAHO HQ Library Catalog), REPIDISCA, ADOLEC, DESASTRES, AdSaude, BBO, BDEF, SIDORH, WHOLIS, and LEYES (See Appendix).

### **Issues Of Service Delivery**

The results attained for information networks in the region have not been gained without challenges along the path of progress. One of the major issues facing a user of the MEDCARIB database is the absence of items published beyond 2000 in the database. Table 1 shows the drastic decline in entries to the database. It is felt that this decline arose not for lack of interest, but as a result of issues in the administration of the network and local conditions experienced by participating libraries. It should also be reported, however, that some articles published in the West Indian Medical Journal after the year 2000, have been entered in the LILACS database.



**Table 1: MEDCARIB records searched by year of publication**

Year of Publication	Number of records	Percentage change
2001 to 2004	Nil	-100%
1996 to 2000	1883	-23.48
1991 to 1995	2461	4.99%
1986 to 1990	2344	26.63
1981 to 1985	1851	26.26%
1976 to 1980	1466	9.23%
1971 to 1975	1342	-11.77%
1965 to 1970	1521	-

We note that participating regional libraries have always supported the vision of the MEDCARIB project and have continued to use this resource successfully to find regional health information. Notwithstanding, from the perspective of service delivery, the decline does not augur well for access to Caribbean regional health information.

At the country level, participating libraries have experienced a range of problems, which have impacted on their contribution to the database.

We submit that some of these problems are:

*Technological divide* - In the area of technology, poorer countries have been slow to acquire the necessary hardware to update their systems for participating in MEDCARIB on the web. In many of these small island states, basic infrastructure is deficient for Internet access to be rendered certain and stable.

*Human resources shortages* - Some participating countries routinely experience a drain on human resources and professional librarians and other skilled library personnel are involved in this movement out of the country. Such changes result in a loss of human capital for information projects. In smaller settings, the movement of library personnel due to routine shifts within an organization may result in the loss of staff for lengthy periods of time. As a result of the various shifts in personnel, a pattern of continuous training may result and there emerges a lack of commitment and enthusiasm on the part of all.

*Monetary shortfalls* - With Kellogg funding coming to an end, the institutions involved in coordinating roles provided some of the services needed to continue the work of the

project. But many coordinating libraries were not always capable of providing such support. With seed money coming to an end, support services such as training could no longer be scheduled.

*Administration of the network* - Problems with software and the transfer of data via the WWW have been noted as major problems for the development of the database on the Internet. These problems were compounded where institutional infrastructure was deficient. The transfer of technical know-how to all the personnel and trouble-shooting needs were not always readily resolved.

*National impetus* - Change or shifts in focus of policy makers away from information services have also impacted negatively on library development projects.

Observations about the MEDCARIB network are consistent with a recent study by a consultant librarian who reported on the operations of regional information systems throughout the Caribbean. The consultant pointed to issues of development and change, which impacted on the functioning of these systems. These drawbacks continue to exist for libraries and create valid concerns for the development of the databases. In the case of MEDCARIB, the consultant reported that only about two centres could be described as active.

### **A Way Forward**

The authors of this paper are of the belief that solutions to the problems in local conditions identified above lie with aspects of collaboration and cooperation among the participating countries of the MEDCARIB network. The solutions, we feel, should be designed with a view to correct imbalances; minimize

deficiencies; promote flexibility and responsiveness; foster commitment and support; and to establish a sense of common good. In a climate of the new Internet technologies and the possibilities of a deepening technological divide; it becomes even more critical to strengthen collaborative ties.

At the level of administrators, policy makers should be lobbied to give firm commitments to initiatives at the national and regional levels. Commitments from policy-makers should be reflected in an infusion of funding which is critically needed to address costs in the administration of the network. This should facilitate not only the maintenance and update of the database, but also provide for necessary training in input methodologies, and acquisition of hardware upgrades to facilitate the use of current technologies. MEDCARIB on the web and the LILDBI-web software have created room for a decentralised approach to administration of the database within the Caribbean. This is pointing to a new system of collaboration at the regional administrative level and this should be addressed.

With respect to service delivery, BIREME's VHL environment offers the MEDCARIB network many possibilities for users of Caribbean health information. In outlining a perspective of the VHL, BIREME noted that the VHL operates under the Internet, information and communication paradigm, and Internet users were seen as the "new-age clientele". This client-base demanded direct online contact with networks of information sources, and with other users, in a dynamic context transcending the limits of geographic space, time, size, and extension. Such developments have empowered researchers to radically increase their individual and collective decision-making capacity based on up-to-date information. Meanwhile, information producers and intermediaries have been under pressure to offer new, more efficient, and more attractive options for dissemination, interaction, integration, mediation, and navigation with a wide variety of information in order to respond to the growing demand for information from the broadest possible range of user communities in diverse contexts.<sup>4</sup>

It is in this context that health librarians in the region are also being called to organize and manage information and deliver service. Emphasis must be given to interactivity for purposes of communication as in discussion groups, news, events, feedback, FAQs, e-reference or e-referrals. There must also be

capabilities for interactive software to provide for users' needs for multitasking.

In the Caribbean however, except for participation in the MEDCARIB database project, the full possibilities of the VHL model for retrieval of information for products and ancillary services via a database e-community have not been wholly explored to benefit health information users. We have seen VHL developing initiatives only in Barbados, in Jamaica and in Trinidad and Tobago. The question that therefore confronts us is how do we sustain these initiatives for the benefit of our health information users, and how do we widen the net to include other countries of the region in this programme. The authors of this paper wish to encourage participating libraries to continue contributing to this important database, and we also wish to underscore that we can only succeed at providing "regional context" to our regional communities through the continuation of such collaborative ventures regionally and virtually. We also advocate sustained efforts at promoting the databases to raise levels of awareness and encourage usage.

## Conclusion

In terms of service delivery, the MEDCARIB database is a relevant and useful resource in the Caribbean and access to and use of health information particularly by information intermediaries have been greatly enhanced by its availability via the Internet. Trends in technological developments and user education however are requiring a dynamic arrangement or mix of resources and services in one e-community. Thus, delivery of a Caribbean health information service would be best served by the adoption and continued development of regional initiatives to strengthen the Virtual Health Library.

Despite the challenges outlined above, there must be the grave realization that health information is critical to development. Through the work of MEDCARIB, significant inroads have been made in establishing the foundation for a sound health information infrastructure at the level of personnel, systems, training, skills base, automation, and awareness. It is imperative that health librarians continue to build on this foundation and not lose ground.

With reference to health information and development, BIREME has stated that health related decisions have their efficiency increased and their uncertainty decreased when based on

the best evidence provided by current scientific knowledge applicable to specific context. MEDCARIB/LILACS and the VHL are undoubtedly a unique opportunity for the developing Caribbean region to provide that

context while supplementing available resources and contributing to the organization of information at the global level. The potential of these databases and the VHL exceeds all the promise of the past.

## Endnotes

- <sup>1</sup> <http://www.bireme.br/crics4w/frconcl.htm>
- <sup>2</sup> [http://www.bireme.br/bvs/reuniao/doci/recomend\\_eng.htm](http://www.bireme.br/bvs/reuniao/doci/recomend_eng.htm)
- <sup>3</sup> <http://www.bireme.br/bvs/I/documentosBVS.htm>
- <sup>4</sup> <http://www.bireme.br/bvs/I/documentosBVS.htm>

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## APPENDIX

MEDLINE International medical literature  
Pan American Health Organization HQ Library  
LILACS Latin American and Caribbean Health Sciences Literature

REPIDISCA Sanitary Engineering and Environmental Sciences

DESASTRES Disaster Documentation Center

ADOLEC Literature on Adolescence Health

AdSaude Health Services Administration

BBO Odontology

SIDORH Human Resources in Health

MedCarib Caribbean Health Sciences Literature

SeCS Serials in Health Sciences/Collections of BIREME

CCREPI Serials on Sanitary Engineering and Environmental Sciences

WHOLIS World Health Organization Library Information System

LEYES Latin American and Caribbean Basic Health

## **e-CARINDEX: From hard Copy to 01**

Kathleen Helenese-Paul

*The University of the West Indies, St. Augustine, Trinidad and Tobago*

*CARINDEX is a project of the Main Library, The University of the West Indies (U.W.I.) St. Augustine, Trinidad. Through its indexing of scholarly journals from the Caribbean, Caribbean conference papers, book reviews and theses produced on the three campuses, three databases are produced: CARINDEX: Social Sciences and Humanities (CARSAH), CARINDEX: Science and Technology (CARSCI), and CAGRINDEX: Abstracts of the Agricultural Literature of the Caribbean. Abstracts for CAGRINDEX are also uploaded to the FAO database (AGRIS) in Rome.*

*The paper presents an historical overview of CARINDEX's journey in offering access to Caribbean journals, highlighting current activities and presenting future initiatives. Provisions for data storage and access, and the problems associated with the attempts to do so will be discussed. Included among the options considered are web-access and interactive CD - ROM. The paper will also discuss UWI St. Augustine's tottering steps in establishing partnerships at both the local and international levels.*

### **Introduction**

The hallmark of The University of the West Indies Libraries has been their coverage of West Indian material in their collections of monographs and serials. International researchers use these collections on a regular basis. Indexing of these materials however has not been the easiest of tasks, since as many are aware that in the Caribbean, the problems engendered by the lack of strong publishing histories, struggling economies and erratic journal literature publication persist. While West Indian articles published in international journals may enjoy coverage globally, it is the local and regional journals representative of the information provided in the region that need to be included in an indexing programme. It is this sense of "capturing you own" that provides the impetus to continue the various and individual efforts to index the journal literature published in the region.

### **From The Beginning**

The first Caribbean index to journals in the social sciences, - West Indian Social Sciences Index, was published in 1974 by Shirley Evelyn, a former librarian at the Main Library, The University of the West Indies, St Augustine Campus, Trinidad and Tobago (hereafter referred to as UWI Main Library). In the introduction to the publication, Evelyn stated:

"...In the meantime, many other journals and newspapers continue to appear throughout the Caribbean. So far there has been no published documentation of their contents. This is a task that needs to be undertaken urgently by the librarians in the region".<sup>1</sup>

The librarians in the region certainly rose to the challenge and by 1977 a Caribbean Index,

CARINDEX: Social Sciences began under the aegis of the Association of Caribbean University, Research and Institutional Libraries (ACURIL).

To the credit of the region there were similar efforts underway, aimed at bringing the published output of the region's journal and report literature under full bibliographic control. Among them were the following:

- The CARICOM bibliography, incorporating existing national bibliographies and covering the monographic literature with access through broad subjects.
- The Caribbean Network of Social and Economic Planning (CARISPLAN) Abstracts, devoted to providing detailed subject access to all types of literature in the Social Sciences published anywhere in the world relating to the Caribbean. This was a regional database and the publication was cooperatively produced by the Caribbean Documentation Centre, UNECLAC.
- The Bibliography of the English-Speaking Caribbean was devoted to listing books, articles and reviews in English from the Arts, the Humanities and the Social Sciences. It was published in the United States by Robert Neymeyer and compiled jointly with Alvona Alleyne, a member of staff of the Main Library, The University of the West Indies, Mona, Jamaica.
- MEDICAL CARIBBEANA, a product of the Medical Library, The University of the West Indies, Mona, initially unpublished, but later published in 1988 by L. Mansing in collaboration with the Library at Mona. It covers the literature of the medical sciences.

Underlying the launch of CARINDEX was the rationale that “despite these very laudable attempts, there are still many gaps both in subject and geographic coverage. The aim of the present programme [CARINDEX] is to fill these gaps, cooperating with existing efforts to avoid unnecessary duplication”<sup>2</sup> and to fulfil the objectives of the programme which were to meet the needs of the following groups both in the Caribbean area and worldwide.

- a) Academic researchers
- b) Researchers in the public and private sector
- c) Planners and policy makers.

### **Early History**

The CARINDEX project was initiated at the first meeting of ACURIL, Indexing Committee, UWI Main Library on the 16<sup>th</sup> July 1975. Shirley Evelyn was the Chairperson. It was envisioned as, “a bi-annual guide to Caribbean periodical literature in the social sciences”....it is hoped that CARINDEX will eventually cover all Caribbean periodical literature, including the natural sciences and technology although this might well involve one or more specialized parallel volumes”.<sup>3</sup> This was to eventually occur but initially ACURIL VI decided the priority should be given to journals in the socio-economic field. Interestingly, it was also hoped at the time, that that there would be input from the Spanish speaking countries to this particular venture, but this was never realised. CARINDEX therefore began as CARINDEX: Social Sciences published by the ACURIL Indexing Committee (English Speaking Area) St. Augustine, Trinidad and Tobago.

In the start-up phase, responsibility for indexing was allocated on a geographic basis, that is, libraries in each territory were solely responsible for their own national output with the understanding that the large territories would undertake responsibility for indexing the output of the smaller countries. At one time, input was received regularly from university libraries or other institutions in Barbados, Guyana, Jamaica, Trinidad and Tobago and the U.S. Virgin Islands until 1981 when this arrangement ceased.

### **The 1970's**

During this start-up phase the first experimental issue, April to August 1976 was published in January 1977. It was prepared by librarians in Trinidad for presentation to the eighth meeting of ACURIL in Jamaica in October 1976. It covered a selection of thirteen (13) serials published in Trinidad and Tobago

with the understanding that subsequent issues will include items from serials published in Barbados, Guyana, and Jamaica.<sup>4</sup> In this inception phase the entire operation was manual. The Main Library, The University of the West Indies, St. Augustine, verified and edited contributions and compiled the manuscript for the mimeographed publication. In the interim, a special issue in 1978 entitled, *An Index to Book Reviews in selected Caribbean Periodicals* was compiled by librarian Kaye Larbi.

The second issue of CARINDEX: Social Sciences Vol. 1 No.2, which was published in March 1977, was true to its word and not only included newspapers but serials from the three islands mentioned above. It is to be noted that the issues 1977 through to 1982/83 were typewritten.

### **The 1980's**

Changes which included the scope, coverage and numbering occurred in the 1980's.

“Starting with Vol.6, 1982, the subject scope of CARINDEX [was] expanded to include the humanities, the title of the index amended appropriately to reflect the added subject matter. In addition to the above, new features were introduced to make the index more useful. These features will include included separate cumulative indexes to poetry, short fiction and bibliographies”.<sup>5</sup>

This index now referred to as *CARINDEX: Social Sciences and Humanities*, was intended to complement the CARISPLAN Abstracts. Staff training and equipment were initially provided by UNESCO under the Integrated Library Information System (ILIS) project, to enable the Library to pursue the development of this co-ordinated indexing programme for the region.

Another major change was that CARINDEX: Social Sciences and Humanities which was formerly published by the ACURIL Indexing Committee, entered into a new arrangement between ACURIL and the UWI Main Library. From 1985 CARINDEX entered into what is known as a “New Series” in that newspapers were excluded, and The University of the West Indies (UWI) theses, were added. Subscribers were informed that:

“This new series of the index excludes entries for newspapers, but adds two new features (i) references to theses presented to The University of the West Indies for higher degrees and (ii) abstracts”.<sup>6</sup> This volume was Vol. 1 No. 1 1985. Although the Main Library assumed responsibility for the publication of CARINDEX,

with this volume, subsequent volumes until 1987 were produced in association with ACURIL until 1987 when CARINDEX passed from ACURIL to become the sole responsibility of the UWI Main Library.

Subscribers were also informed of the library's two new abstracting journals *CARINDEX: Science and Technology* and *CAGRINDEX: Abstracts of the Agricultural Literature of the Caribbean*.

An experimental issue of *CARINDEX: Science and Technology* was issued in March 1987, and covered the output of scientific and technical literature of the English speaking Caribbean including journals, conference proceedings annual reports of selected bodies, University theses and report literature.

*CAGRINDEX: Abstracts of the Agricultural Literature of the Caribbean* was a regional and co-operative product of the CAGRIS system which was funded by the Inter-national Development Research Centre (IDRC) of Canada. Like *CARINDEX: Social Sciences*, completed worksheets were sent from other Caribbean countries and these were input at the Main Library. Sometimes the documents themselves were sent and the indexing done at the Main Library. This undertaking which began in 1981, continued until 1990 when the cessation of funding from the IDRC and insufficient staffing, led to *CARINDEX: Science and Technology* being split into two volumes. The first issue of each volume would deal with science and technology, while the second volume would be concerned with agriculture. This arrangement began with Vol. 3 No.2, March 1990 and saw the beginning of a relationship with the Food and Agricultural Organization (FAO), whereby the agriculture records were sent via diskette to the International Information System for the Agricultural Sciences and Technology, (AGRIS) Rome, for input into their database. *CARINDEX: Science and Technology* regularly appeared in print format from 1979-1988 but was always computer produced. The last printed issue appeared in 1995.

### **On The Web In The 1990's**

The 1990's saw the first fledgling efforts in producing an online product. In correspondence of 1989, mention was first made of producing *CARINDEX* using the mini/micro CDS/ISIS software, making it a machine readable product but available only on the input computer in a single user environment. Help was sought from the UNECLAC sub-regional office through Wilma

Primus as to the feasibility of doing so through their facilities, which had already made their CAGRIS product available online.<sup>7</sup>

Meanwhile, the Indexing Unit was exploring ways of making the product a web-based reality. Its report of 1998/1999 stated:

"Over the past year, the central focus of the Unit has been directed to the Web*CARINDEX* Project, aimed at capitalizing on the World Wide Web as a publishing medium for the journal *CARINDEX: Social Sciences and Humanities*...The Project consisted of configuring UNESCO's free software Web Isis to accommodate CDS/ISIS records with accompanying HTML search pages and Common Gateway Interface (CGI)".<sup>8</sup> And so the journal was launched on the Internet consisting of retrospective and "current" databases.

The Herculean task of transforming *CARINDEX* from the printed version to an online version fell to Dr. Hannah Francis who was Head of the Indexing Unit at the time. (November 1999). Targeting only those who subscribed to the printed version of *CARINDEX*, subscribers were informed by letter and in the last printed issue Vol. 6 No.2, 1990, that there was a change from a printed issue to the availability of *CARINDEX*, via the Internet, constructed in UNESCO's Web-Isis software. Subscribers were also advised that *CARINDEX* was no longer a homogenous product but rather, a series of databases which included the following:

*CARINDEX: Social Sciences and Humanities* – 1983- 1990

*CARINDEX: Social Sciences and Humanities* – 1994-1996

*CARINDEX: Social Sciences and Humanities* – 1997

Theses - 1983-1993

Book reviews - 1984 -1990

Poems - 1984 -1990

Short stories - 1984-1990

Subscribers were provided with a User ID and password by the Accounts Unit of the UWI Main Library. All this was done with the assistance of the Engineering Institute of the Faculty of Engineering, The University of the West Indies, St. Augustine Trinidad and Tobago. This initiative enjoyed a measure of success within the campus community. However because of network security arrangements, it was mostly inaccessible outside the campus because of the firewall installed by the Department of Engineering.

## Caribbean Resource

As a result of its recognition as a valued Caribbean resource, in 2002, discussions were held between the library's Multimedia Librarian, and Claudia De Four the then Head of User Services. The focus of these discussions was how to provide wider access to CARINDEX: Social Sciences and Humanities to the research community. The result was that CARINDEX became available via the Local Area Network to both staff and users at various service points in the library. Another development at this point in time was the development of a CD-ROM with the intention of distribution to the campus community, subscribers and researchers. Distribution was suspended however not because of technical difficulties, but because of operational aspects such as inconsistent local descriptors.

However, further developments were also to take place. An offer was made by Maritza Hee Houg the Caribbean/Latin American representative for the International Network for the Availability of Scientific Publications (INASP), to assist with the re-launching of CARINDEX: Social Sciences and Humanities as an online product. Several in-house meetings followed as to what was to be exported. Was it going to be the entire database? Was it going to be a sub-set? If so what years were to be selected? The big issue turned out to be whether it would be exported with descriptors attached since it was felt that there were inconsistencies with many of the local keyword terms. Many of the present descriptors did not comply with international standards.

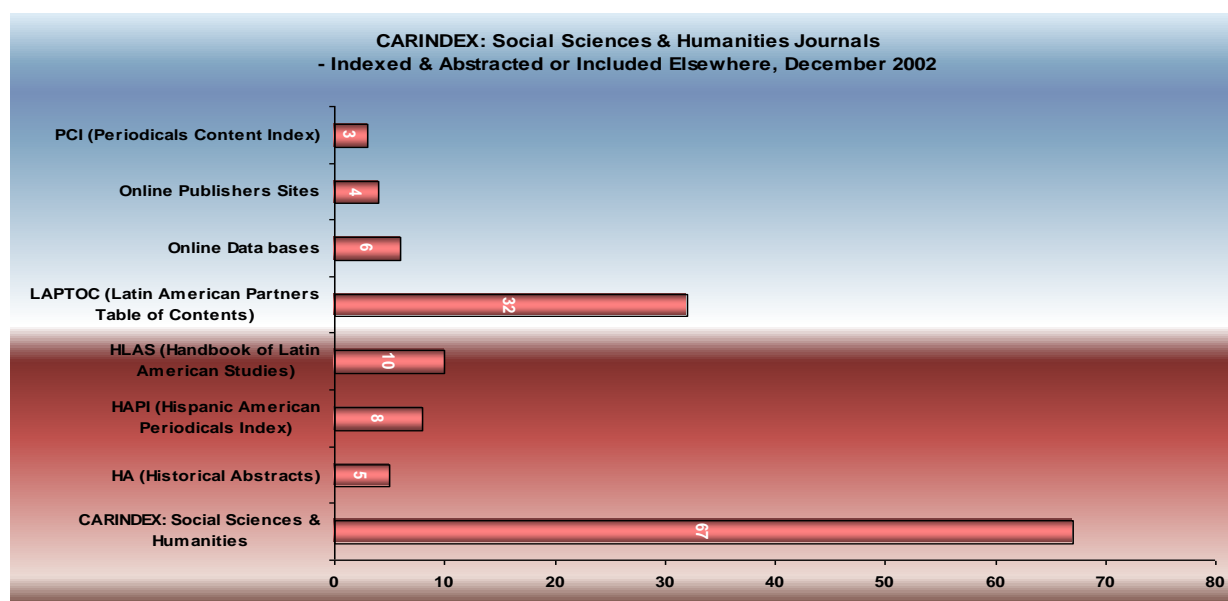
Eventually, 3,000 records from 1983 to 1999 and representing 70 journal titles were exported with the relevant database definition files. Descriptors were not exported with the records, making retrieval available only via the titles, and at this present time, presenting some limitations to the search process. This was a major collaborative effort between the Main Library and INASP in the provision of the database definition files, the records, and the configuration of these files to work within the WWWISIS software configuration. The result was the launching of <http://www.inasp.info/iah/carindex.html>.

## International Arena

CARINDEX: Social Sciences and Humanities indexes some 70 journals published in the Caribbean. A study conducted by Rabia Ramlogan the present indexer in the Indexing Unit revealed the following in a report submitted in December 2002.

Eight (8) of the current journals are also indexed in Hispanic American Periodicals Index (HAPI).

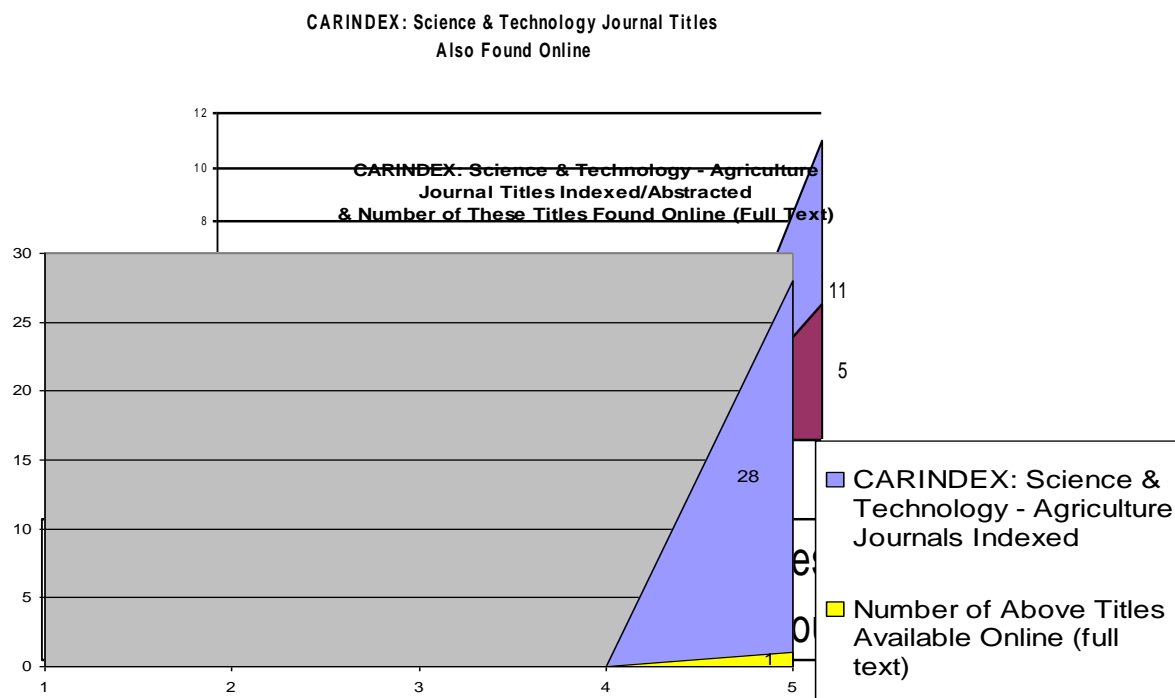
- (1) Thirty-two (32) are included in Latin American Partners Table of Contents (LAPTOC)
- (2) Ten (10) are indexed in Handbook of Latin American Studies (HLAS)
- (3) Three (3) are indexed in Periodicals Contents Index (PCI)
- (4) Five (5) are indexed in Historical Abstracts (HA)
- (5) Four (4) are indexed in online publishers sites.
- (6) Five (5) are indexed in online databases, for example OCLC First Search



The above reveals that apart from the 32 titles included in LAPTOC, 36 titles are indexed elsewhere with at least 12 titles found to be indexed at least four times each across various databases. However the overlap and duplication are not unexpected, confirming the present state of the shifting information scene, and the need to constantly monitor and evaluate the situation. Another noteworthy feature is the variations of the offerings. Some publishers' online sites list only the contents pages e.g. LAPTOC, while others list only current titles with no archiving. The online site for the Journal of Eastern Caribbean Studies began offering online abstracts in December

2003, while for the Caribbean Journal of Criminology and Social Psychology, the site offers full abstracts for download, at <http://www.uwi.tt/socasci/crim/abstracts/htm>

With regard to CARINDEX: Science and Technology (CARSCI) out of a list of eleven (11) titles indexed, five (5) were found to be available via online resources. When CARINDEX: Science and Technology – Agriculture, is examined, out of its listing of twenty-eight (28) only one was found to have one full text offering via PDF from NARI, namely Farm Journal of Guyana (August 2002)



Altogether the evidence presented above points to the fact that although many of the substantial Caribbean publications are being disseminated by other providers, their offerings are not, in many instances, any more comprehensive than what is being offered at present by CARINDEX: Social Sciences and Humanities. There is the awareness that many of the publications are small and may even be in the nature of bulletins and newsletters. They can be elusive, irregular, and they frequently change titles. This makes the task more arduous. It calls for vigilance and points to sustained efforts to strive to capture the viable Caribbean outputs since many of them represent the grey literature of the region. Of importance also is the fact that the subject matter of many of the Conferences hosted in

the region is captured in CARINDEX. Theses, the intellectual output of the three UWI campuses are also indexed.

CARINDEX therefore remains viable as index intent on capturing the indigenous output of the Caribbean. There is also evidence that it continues to serve as a valuable resource especially in the West Indian and Special Collections Division of the library.

### Operational Aspects

There is also awareness that operational aspects need attention. When INASP offered to host CARINDEX: Social Sciences and Humanities among the many issues raised were:



- (1) The lack of authority control in the use of descriptors over the years.
- (2) Inconsistent approach in writing descriptors.
- (3) The need to develop local thesaurus to be used in conjunction with a selected international thesaurus in a revision of all records in the database to ensure consistency and relevancy of subject descriptors.
- (4) Quality control. As a point of information for those engaged in indexing, and those who are considering engaging in the exercise, HAPI has an editorial staff of three persons and an international panel of twenty-nine (29) indexers consisting of Latin American librarians and professors who volunteer their time and expertise to the project. Speaking for CARINDEX, in its early days of operation it too did enjoy an editorial staff of at least three persons and as many as twenty-six (26) contributors when it received copy from the other Caribbean countries. This was between the years 1979-1981.

#### **Administrative Changes**

CARINDEX over its 27-year history has gone through many changes in its production, not only in content, style and format, but also in its indexing formula. Over the years, various librarians in turn have headed the Indexing programme, fluctuating between all Divisional Librarians as contributors or one or two librarians acting as editors and being responsible for the production. Ms. Sharida Hosein has been solely responsible for a number of years for the production of CARINDEX: Science and Technology, and CARINDEX: Science and Technology - Agriculture. All contributors have functioned

on a part-time basis. This has sometimes led to delays in production and lapses in production in some cases because of time constraints.

#### **Present Scope of Activities.**

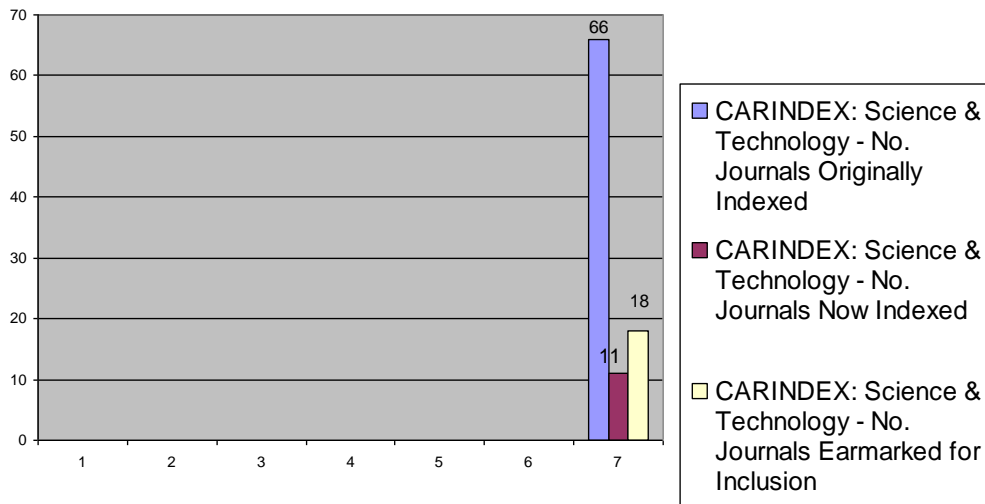
With one full time Senior Library Assistant and one full time Computer Operator/Data Entry Clerk, CARINDEX is pressing ahead with its responsibilities.

A recent thrust has been to seriously evaluate the journals it indexes. Towards this end, the Unit together with the Divisional librarians and aided by staff from the Serials and Technical Services Unit, engaged in a selection/de-selection exercise. This resulted in the selection of sixty-nine (69) new titles and the deletion of many of those which had lapsed, been suspended or have only issued a single publication. The selections still have to be evaluated for addition to the list of titles to be indexed.

Always seeking to find ways to enhance the capability of the database, earlier this month, staff in the Unit did so by enlarging the search capability of the author field so that a search surname or first name can produce a result.

The Unit is also looking towards the injection of new titles as a result of a 2002 stocktaking exercise. This revealed that of a total of 66 original titles indexed for Science and Technology, the current titles are now 11, but 18 new titles have been earmarked. For agriculture, of the original 72 the list currently numbers 18 but 7 new titles are being considered. For the Social Sciences and Humanities, of the former 85, 68 are now current and 36 new titles are up for consideration. Current in this context means either current or currently claimed and under scrutiny. The Unit therefore is fully cognizant of the situation and has a handle on the need for constant monitoring and upgrade.

**CARINDEX: Science & Technology Journal Titles Indexed/Abstracted  
Originally, Now, Earmarked**



### Renewing Old Partnerships?

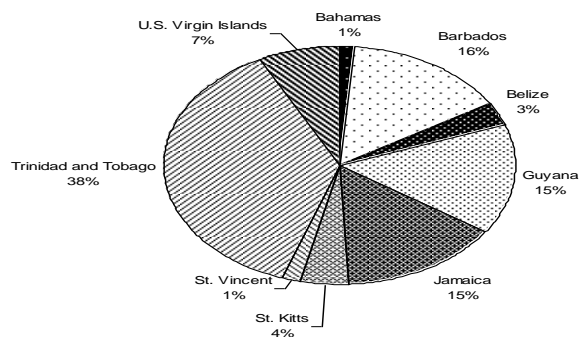
An area of discussion that may also revitalize CARINDEX is ongoing discussion with the other campuses to revive the relationship they enjoyed with CARINDEX between the years 1979-1981. A discussion paper received from the Mona campus in January 2003 recommended:

“The Campus Libraries should enter into discussions to return to the co-operative indexing with each participating library committing itself to indexing specific titles. However this will almost certainly require the

provision of additional staffing or changes in the way staff is presently deployed”.<sup>9</sup>

It further recommended that the database should not include newspaper articles and that the records be fed into a single database. Since between the UWI libraries we subscribe to a high percentage of the West Indian journals, this database would be very useful indeed. It also recommended that ‘special projects’ with additional funding would have to be developed for the indexing of back issues. From all the information provided on its chequered history, this consideration should extend not only to back issues but the entire indexing programme.

**CARINDEX: Social Sciences & Humanities Journals  
- Caribbean Coverage, 2004**



## Looking Towards The Future

Apart from consideration of the above, The University of the West Indies, St. Augustine Library will continue its discussions with INASP and its offer of help. Whether this takes the form of helping in the loading of updates, or assisting in the migration to a new platform, remains to be seen. It is recognized that the time may be right for a migration of the database from CDS/ISIS to a web interface for both data entry and searching and which can be facilitated by the application of middleware. Altogether, this system should be one that is easily accessible to students and possesses a user-friendly interface. It is also recognized at this point that the viability of the database would be enhanced with the addition of keyword searching which would revolve around the development of a Caribbean terms thesaurus.

## Endnotes

<sup>1</sup>Shirley Evelyn, West Indian Social Science Index: An Index to Moko, New World Quarterly, Savacou, Tapia, 1963-1972. [with an introduction by Gordon Rohlehr] St. Augustine, Trinidad: The Author, 1974.

<sup>2</sup> The University of the West Indies, Caribbean Indexing Programme, CARINDEX File H308 (The University of the West Indies, St. Augustine: The Main Library, [nd]).

<sup>3</sup> The University of the West Indies, CARINDEX: Social Sciences file A355 (The University of the West Indies, St. Augustine: The Main Library, [nd]).

<sup>4</sup> The University of the West Indies and ACURIL CARINDEX: Social Sciences Vol.1 No. 1 January 1977 (The University of the West Indies, St. Augustine: The Main Library, 1977).

## Conclusion

Altogether, there is much to be done. Funding is necessary for the recruitment of staff and the purchase of the necessary hardware and software. If the Mona suggestion is taken up and the three campuses can consider pooling funds from their own budgets to fund CARINDEX, there is no reason in the world why CARINDEX: Social Sciences and Humanities, in collaboration with its present partner INASP cannot become a vital and vibrant Caribbean indexing resource. We speak of partnerships. Is there room for HAPI in all this?

I wish to acknowledge the contributions of my colleagues to the paper, by way of comment and especially to Juliet Chan Wing who compiled the tabulations and supplied the charts and diagrams that accompany this paper.

<sup>5</sup>The University of the West Indies, St. Augustine. Letter to subscribers from Shirley Evelyn, 1982

<sup>6</sup>The University of the West Indies, St. Augustine. Letter to subscribers from Shirley Evelyn, 1988

<sup>7</sup> The University of the West Indies, St. Augustine. Letter from Dr. Alma Jordan to Wilma Primus, 25<sup>th</sup> January 1989

<sup>8</sup>The University of the West Indies, St. Augustine Indexing Unit Annual Report 1998-1999. (The University of the West Indies, St. Augustine: The Main Library, 1999).

<sup>9</sup> Discussion paper from the University of the West Indies, Mona, Jamaica. "The Indexing of West Indian Periodical Articles: Social Sciences and Humanities".(The University of the West Indies:Mona, [nd]).

# LAPTOC: Forging Partnerships with Latin American Libraries

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*Latin American Periodicals Tables of Contents (LAPTOC) is a searchable web database that provides access to the contents for more than 800 journals, primarily in the fields of humanities and social sciences. This database (LAPTOC) is a project of the Latin Americanist Research Resources Project (LARRP) which is an initiative of the Global Resources program of the Association of Research Libraries (ARL). The principal goal is to expand access to Latin American research resources by promoting and providing a distributed model of library cooperation, enhancing electronic access, and effective document delivery. Since its inception LAPTOC has proven to be a valuable resource to researchers.*

*The University of the West Indies is one of the fifty-six (56) participating institutions providing Tables of Contents (TOC) access to over 50 journals of the LAPTOC database. This paper will demonstrate the usefulness of the project not only to researchers but also to the academic community in general, and will provide insights to other institutions to forge greater partnership.*

## Introduction

The globalisation of the Caribbean information has been greatly enhanced through the accessibility provided by the LAPTOC database, therefore providing a gateway for the outlook of civil society in Latin America and the Caribbean in accessing the documentation of the democratic dialogue essential in the globalise world. LAPTOC is especially important since it is the only bibliographic access to approximately eight hundred "alternative" periodicals, published in Latin America and the Caribbean.

The cooperative nature of the project, which creates and maintains this database, is evidence of one of the better aspects of globalisation at work among libraries. Participating libraries acquire each issue of journals for which they are responsible. St. Augustine Campus is responsible for fifty such journals titles.

## Background

Latin America Periodical Table of Contents (LAPTOC) is an initiative of Latin Americanist Research Resources Project (LARRP), and is a recent effort towards providing access to Latin American and Caribbean journals. LARRP was launched to expand the range of research materials available to Latin Americanist scholars and students through the development of a distributed model of library cooperation and to enhance electronic access through new technologies, and effective document delivery. LARRP has forty-eight North American participants including three non-ARL Libraries, and seven Latin American partners. LARRP enjoys a close collaboration with the Latin American Network Information Center (LANIC) at the University of Texas in Austin. LANIC, however, provides technological

support and hosts LARRP's databases. LAPTOC is one of four components of LARRP.

## LAPTOC

The Project comprises forty-seven institutions, with each participating library committed to maintaining their journal subscriptions and providing expedited document delivery for the titles they indexed, as well as institutional collecting responsibilities for journals included in the database. The libraries agree to acquire each issue of the assigned journal, to enter the tables of contents into the database, and to provide document delivery from the titles for which they have institutional responsibility. Each participating library shares a web template after collecting the journals and entering the tables of contents into the database. LAPTOC is a searchable web database, which offers open access to the tables-of-contents information of more than 800 journals published in Latin America and the Caribbean, mainly in the area of Humanities and Social Sciences. It serves primarily as a discovery tool to these periodicals tables of contents and offers key word searching. It should be noted that the more than 200,000 articles thus represented are for the most part or the great majority indexed nowhere else or in no other database.

## UWI's Involvement

When potential Caribbean partners were being identified, it became evident that no single library holdings contain journals that cover the entire Caribbean region extensively. Initially a Cuban library was considered, but due to the existing embargoes it was overruled because the use of Federal funds was involved in the purchase of equipment that was required for

project participation. Two other libraries were considered, namely, the University of the West Indies and the University of Puerto Rico. The Caribbean journal collections of the three campuses of the University of the West Indies were reviewed and it was determined that only St. Augustine Campus possess the adequate regional collection and technological capabilities required to meet the partners' program's objectives.

The cultural diversity of the Trinidad and Tobago's population encompasses the unique journal holdings of the St. Augustine Campus libraries. The Library boasts journals titles published in English based Creole and offers indigenous Caribbean dialects which are not readily available in the region or in other participating libraries. An example of such journal is the Caribbean Window, which focuses on the Indo-Trinidad population and its concern. UWI included several other journals of various disciplines not found in OCLC and presumably not available in US libraries databases, thus providing through LAPTOC valuable research material on the ethnic aspects of Caribbean culture.

It should be noted that St. Augustine recognizes for the most part that journals entered into LAPTOC duplicate many of the journal indexed in CARINDEX. But this is not being regarded as duplicating efforts, since CARINDEX is an abstracting service.

### **Partnerships**

The United States Department of Education TICFIA grant funding for 1999/2003 awarded to the University of Texas at Austin supported the addition of content supplied by Latin American partner institutions. The grant also funded programming enhancements, including a more effective search interface, the ability to e-mail and download citations to allow scholars to create bibliographies from the database, and links to the journal web sites or full text.

In combination with OCLC's ILL system and Group Access Capability (GAC), users at participating institutions can identify and order articles included in the LAPTOC database and have the articles electronically delivered to their home requesting library. If your institution is a member of LARRP and as such, has agreed to supply requested articles from the LAPTOC titles assigned to your institution, and to other LARRP members, your users may request LAPTOC articles through an electronic user-initiated feature in the database that generates

an ILL request to your institutions' OCLC ILL review file.

All participants agree to fill LAPTOC interlibrary loan. The work of adding these entries to the LAPTOC database is shared among the North American member libraries – a consortium of 48 libraries, and a group of 7 associate institutions in Latin America and the Caribbean. The associate institutions namely: The Inca Library in Cochabamba, Dolicia; the Central American Centre of Regional Research in Antigua, Guatemala; the library Network of the University of Puerto Rico, Rio Piedras Campus; The Main Library the University of the West Indies, St. Augustine Campus; the University of San Andres in Buenos Aires; the Federal University of Rio Grande in Porto Alegre; and the University of Sao Paulo in Brazil. These institutions were selected through a detailed analysis, which took into consideration the number of regional-level active journal subscriptions of each institution. This criterion was given more weighting than the actual access to national titles. Gayle Williams, a bibliographer at Emory University, spearheaded the final selection and coordination of participating libraries. In her role as coordinator of the collative LAPTOC program, she visited the participating institutions, trained staff, and administered the installation of the ARIEL software, which is used in LAPTOC for data transmission.

Each of the participating institutions has responsibility for the acquisition and entry of records for the different regional journals in accordance with the following geographic distribution: Andean Countries (INCA Library); Central America (Centre for Regional Research); Southern Cone (San Andres); Brazil (Universidade Federal de Rio Grande y Universidade de Sao Paulo); the English-speaking Caribbean (University of the West Indies); and the rest of the Caribbean (University of Puerto Rico). This system ensures a broader scope in terms of the number of titles included, as well as helping to ensure a balanced representation from each of the Latin American and Caribbean countries. At present these journals come from the following countries: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, the Dominican Republic, St. Kitts and Nevis, Trinidad and Tobago, and Venezuela. Although this does not represent all of the Journals that are published in Latin America and the

Caribbean, it is still a significant proportion, especially considering that LAPTOC has incorporated more new journals than other indices like HAPI and CLASE.

Despite being a database of bibliographical records, one of the advantages that LAPTOC offers is the ability to borrow in connection with the article being used. This is possible through the delivery of documents, which all participating institutions have promised to make available. Each inter-library borrowing, which can be carried out electronically is free for participating institutions, while other non-participating institutions may access the database upon the payment of a specified cost. This cost varies depending on the material requested, as well as the institution from which the material is requested.

### **Conclusion**

In 1999 there were only 426 titles available from 3 countries, moving to over 200,000 articles from 29 countries in 2004. This

growth can be attributed to effective collaboration of Caribbean, Latin America and North American Libraries. LAPTOC has evolved into a database of great capabilities utilizing and optimising the use of new technology, which permit immediate access to these journal resources.

LAPTOC has subtly achieved Academic information integration whereby the participating libraries can now conduct research on Caribbean and Latin American subjects. LAPTOC serves as a practical model of the benefits of resource sharing and cooperation among participating libraries.

The St. Augustine Main Library's participation in LAPTOC is a way of sharing its information with not only Latin America but also with Universities globally. And is another example of using databases to bridge the information gap internationally. Prior to LAPTOC this information would have been primarily used within the Caribbean region.

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# Experiencing Caribbean Literature through Digital Media

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*This paper examines the challenges in developing electronic information resources in the area of Caribbean literature and outline future developments to integrate these resources into even more engaging learning experiences for understanding the literature of the Caribbean through the use of digital media.*

## Introduction

Richter Library of the University of Miami is actively involved in developing electronic information resources for Caribbean literature. In collaboration with the University's Caribbean Literary Studies group, led by Professor Sandra Pouchet Paquet, two electronic resources have been created: the Caribbean Writers Video Archive and *Anthurium: A Caribbean Studies Journal*.

Between 1991 and 1996 the University of Miami conducted a workshop each summer that brought together writers and scholars of Caribbean literature. These sessions were originally recorded on VHS video and have now been digitized by the Richter Library to form the basis of the Caribbean Writers Video Archive, which is freely available on the Internet.

Consisting of over 400 video files, the online archive is a pioneering effort to capture discourse about Caribbean literature through digital media. In the archive one can view and listen to George Lamming reading from *In the Castle of My Skin*, Edwidge Danticat reading from *Breath, Eyes, Memory*, Kamau Brathwaite discussing the impact of rhythm and indigenous influence on his writings, as well as many other notable writers discussing their craft.

*Anthurium: A Caribbean Studies Journal* is a new, open access, peer-reviewed journal only available in electronic form. Edited by Dr. Paquet, *Anthurium* publishes articles and creative writing about all aspects of Caribbean life and culture. The inaugural issue, published online in fall 2003, is focused on Kamau Brathwaite Overview of Caribbean Literary Resources at Miami.

At the University of Miami the development of electronic resources relating to Caribbean literature has occurred along three independent, parallel paths: 1) faculty initiated project requested from the English department, 2) faculty initiated project requested from the Foreign Languages department, and 3) a

digitizing project internal to the library focused on the Cuban Heritage Collection.

## Caribbean Writers Summer Institute Archives

An initiative of the Caribbean Literary Studies group and the English department, the archives of the Caribbean Writers Summer Institute (CWSI) were converted from videotape to streaming media format for delivery via the Internet. A full description of the history of the archives and the digital conversion of the material is presented later in this paper. The Caribbean Writers Summer Institute Archives can be found at <http://scholar.library.miami.edu/cls/CWSIMainPage.htm>

## Anthurium: A Caribbean Studies Journal

Another initiative of the English department and the Caribbean Literary Studies group was the creation of an online journal. A full discussion of the issues involved in developing this journal is found later in this paper. The initiative for both the writers' archive and the electronic journal was led by English professor Sandra Paquet. The journal can be found at <http://scholar.library.miami.edu/anthurium/home.htm>

## Archivo Teatral Cubano: The Cuban Theater Archives

The success of the writers archive inspired Foreign Language associate professor Lillian Manzor to contact the library about a project to create a resource on Cuban theater that utilizes digital video. This project is still very much under development but a preview can be found at:

<http://open.library.miami.edu/theater>

## Literary Finding Aids from the Cuban Heritage Collection: Jose Lezama Lima, Lydia Cabrera, and Enrique Labrador Ruiz

From 2000 – 2003 the library received funding from the Institute of Museum and Library Services to digitize part of the Cuban Heritage

Collection. At least three of these collections have significance for the study of Spanish language literature. Jose Lezama Lima was a poet, novelist, and essayist. The collection contains an annotated copy of Lezama Lima's novel *Paradiso*, which is considered his masterpiece. Lydia Cabrera was the foremost chronicler of Afro-Cuban folklore and religion. Included in the collection are correspondences between Cabrera and Cuban writers such as Reinaldo Arenas as well as with many other writers and artists. Enrique Labrado Ruiz was a Cuban writer who published essays, stories, novels, and poetry. In addition to manuscripts of articles and essays, the collection contains correspondences between Labrado Ruiz and other Cuban writers. While not all material in every collection has been digitized, the online finding aids provide access to more than 14,000 unique items selected specifically for online delivery. The finding aids of the Cuban Heritage Collection can be found at <http://digital.library.miami.edu/chcdigital/archives.shtml>

Caribbean literature can be defined in many ways, but is most often segmented by language such as English, French, and Spanish. Most of this paper will focus on the Anglophone Caribbean literature.

### **Genesis of the Digital Video Project**

In 2001 Richter Library established its Digital Media Lab (DML) as a service point for collaborating with faculty and students to explore the potential of enhancing instruction and research through digital audio and video. (See <http://digital.library.miami.edu/medialab/> for more information on the activities of the DML). At the same time, the library took over the management of the streaming media server at the University. Through the DML and the streaming media initiative, the library was becoming known on-campus as a valuable resource for faculty and students on gaining assistance in working with digital media.

Another activity of the DML was to aid faculty in the development of Web sites. It was this aspect of the DML that led to the initial contact with the Caribbean Literary Studies group at UM. DML manager Fabian Rodriguez was approached by research assistant Kathryn Morris to create a Web site for Caribbean Literary Studies. The result of this initiative can be seen at <http://scholar.library.miami.edu/clsl/>

Conversations between Fabian and Kathryn regarding the Web site led to discussions with Dr. Paquet and the author about further

assistance, which the DML could offer to the group. The vast video archives of the Caribbean Writers Summer Institute were identified as a suitable next project.

### **The Caribbean Literary Studies Group**

To understand the nature of this project, it's useful to have some background on the Caribbean Literary Studies (CLS) group at the University of Miami. CLS was formed in 1999 with the goal of stimulating discussions about Caribbean literature, culture, and art. The group's membership is made up of graduate students, alumnae, faculty, and other interested persons from the Miami community. Sandra Paquet serves as chairperson of the group. In many ways, the Caribbean Writers Summer Institute laid the foundation for the formation of the CLS.

### **History of the Caribbean Writers Summer Institute**

The Caribbean Writers Summer Institute ran from 1991 to 1996. It began with an endowment from author James Michener, who worked at the University of Miami while writing his book *Caribbean*. (Richter Library's Archives & Special Collection contains the manuscript files for this book; the finding aid is located at <http://www.library.miami.edu/archives/papers/michener.html>). Also, underwriting the cost of the institute was a grant from the Dante B. Fascell North-South Center at the University of Miami.

The institute was originally run by Zack Bowen, chair of the English department. In 1992 Sandra Paquet joined the faculty at UM and served as director of the CWSI from 1993 – 1996. Dr. Paquet is a noted scholar and has published books on Caribbean autobiography and on the novels of George Lamming.

The six years that the institute existed resulted in a vibrant dialogue in Miami about Caribbean literature. Significant portions of this dialogue are now available for everyone through the digital video archive.

### **Phase 1, Developing the Digital Video Project**

The DML staff worked closely with CLS research assistant Kathryn Morris to review the VHS videotapes from the institute and identify the sessions that would be transferred to digital media. Morris also provided the initial cataloging that annotates each video file. Over the course of 2002 the digital conversion process took place and resulted in the creation of over 400 digital video files. These files were



converted to RealMedia format and up-loaded to the library's streaming media server. Web pages describing the programs for each year of the CWSI were produced and each RealMedia file was linked to a corresponding entry on the CWSI program pages. The video archive was officially unveiled in March 2003. This activity resulted in what we now call phase 1 of the Caribbean Writers Video Archive and is available at <http://scholar.library.miami.edu/cls/CWSIMainPage.htm>

### **Phase 2: a New Approach to Digital Video Archiving**

In 2004 the digital library program started work on a new phase of the project. A significant drawback with the data to this point was that it only existed on a series of Web pages, which made not only searching but also editing cumbersome.

The decision was made to migrate the data into a relational database that would provide a Web interface for searching the descriptive information associated with each video. Also, the database would allow for the listings of the videos to be arranged in different ways. For example, rather than videos only being available based on the year of the CWSI program, the videos would now be available by author so that one could now easily find all videos that featured, for instance, Edward Baugh.

Librarian Lyn MacCorkle developed a MySQL database and the PHP scripts for searching and displaying the videos. She also developed a Web front-end that would serve as an administrative module for editing descriptive information about the videos.

Another aspect of phase 2 was extending the content beyond videos produced during the CWSI. Miami continues to attract writers to its campus and, when possible, these readings are recorded digitally by DML staff and made available over the Internet. As this activity continues, the collection of Caribbean writers on video will expand significantly beyond those featured in the 1991-1996 CWSI series. An example is a reading in the fall of 2003 by Oonya Kempadoo. The online video for this reading is at [http://streaming.miami.edu:8080/ramgen/artscience/cariblitstudies/specialevents/unveiling\\_reading\\_111103.rm](http://streaming.miami.edu:8080/ramgen/artscience/cariblitstudies/specialevents/unveiling_reading_111103.rm)

### **Metadata for Digital Video**

As part of this effort to re-position the data of the CWSI videos into a more functional system,

efforts were undertaken to standardize the data fields. Metadata librarian Fiona Kelleghan developed a data dictionary consisting of 45 fields. The fields are divided into descriptive, administrative, and technical data elements. The fields were also mapped to the Dublin Core standard. Below is an example of a cataloging record for the CWSI archives, expressed in a Dublin Core mapping (not all fields in the data dictionary were utilized):

*Title:* "A Mother's Silence" read by Edwidge Danticat

*Date.Created:* 1994

*Contributor.speaker:* Edwidge Danticat

*Contributor.conference:* Caribbean Writers Summer Institute

*Publisher:* University of Miami English Department

*Format.duration:* 7 min 57 sec

*Description:* Edwidge Danticat give thanks to her people in Creole. Danticat then reads her story, "A Mother's Silence".

*Subject.topical:* Literature (Caribbean)

*Subject.personal:* Danticat, Edwidge

*Type:* Moving Image

*Type.genre:* Reading

*Identifier:*

[http://streaming.miami.edu:8080/ramgen/artscience/cariblitstudies/1994/1994\\_P06\\_02\\_motherssilence.rm](http://streaming.miami.edu:8080/ramgen/artscience/cariblitstudies/1994/1994_P06_02_motherssilence.rm)

*Format.medium:* application/vnd-rn-realmedia

*Relation.Format:* VHS videorecording

*Relation.Series Title:* Readings by Edwidge Danticat

*Relation.SubSeries Number:* 2

*Relation. Collection Name:* Caribbean Writers Summer Institute

This level of cataloging information provides richer capabilities for developing a system with enhanced search and retrieval functions.

### **Developing an Electronic Journal for Caribbean Studies**

Another major project that the library conducted in collaboration with the English department was the creation of an online journal called Anthurium: A Caribbean Studies Journal. This peer-reviewed journal is published twice a year. The first issue was

released in fall 2003 and the second issue in April 2004. The development of the journal is largely a project shouldered by the tremendous hard work of two doctoral students and a young staff member of Richter Library. Doctoral students Andrea Shaw and Prudence Layne edited the first issues of the journal under the oversight of Dr. Paquet. The current DML manager Bryanna Herzog provided the Web design and many hours of editing Web pages and preparing graphics. Many of the papers for the first issues stem from 22<sup>nd</sup> Annual West Indian Literature Conference hosted at Miami by the Caribbean Literary Studies group.

Also featured in the first issue is a special publication by Kamau Brathwaite, who transformed his keynote address at the conference into a piece titled “Namsetoura & the Companion Stranger.” As with several of Brathwaite’s books of poetry, he developed his own typography for presenting the text of “Namsetoura”. Brathwaite’s unique style is known as ‘Sycorax video style’. However, this presented a unique challenge. For Brathwaite, the typography is a distinctive element that conveys meaning to his work and we desired to

represent the text as faithfully as possible. While the journal is presented in HTML, we chose to represent “Namsetoura” as a PDF file. Yet, in order to maintain the legibility of the text we had to scan the material at a very high resolution, which resulted in a large file size (especially considering that “Namsetoura” is more than 80 pages). Finally, after extensive trial and error, we were able to deliver a PDF file that is approximately 8 MB in size. Any attempt to reduce the file size further resulted in too much degradation of Brathwaite’s typography.

Another challenge in developing Anthurium was dealing with the issue of pagination. Literary scholarship is based on close examination of literature and the critical essays that surround a work. When referencing a specific aspect of an article the editors of Anthurium felt strongly that some type of page number would be necessary. Without wanting to impose page numbering artificially onto an electronic journal, the author examined a large number of literary e-journals for examples as to how to handle this matter.

## **Discussion**

Biblioteca de San Agustín, Trinidad y Tobago.

1 ¿Cómo pudo obtener los derechos de autor para este proyecto?

### **Respuesta**

El Departamento de Inglés pidió los permisos a las fuentes correspondientes y estos fueron concedidos.

Grey Mone, Jamaica

2 ¿Qué le inspiró a usted para llevar a cabo este proyecto?

### **Respuesta**

Fue idea del Departamento de inglés que tenía las cintas de videos y las proporcionó para iniciar los trabajos.

No hubo mas preguntas.

(Notes by Dulce María Núñez de Traveras (República Dominicana))

# Global Trends in Communication of Scientific Information: Opportunities & Challenges for the Caribbean

Swarna Bandara

*The University of the West Indies, Mona, Jamaica*

*Technological advances are changing the way scientific information is produced, archived distributed and searched. Electronic publishing and Open Archive Initiatives are emerging to address the monopoly of high impact journals and to take advantage of technologies available in generating, distributing knowledge without any boundaries. International, regional and local institutions recognize advantage of information technologies that can provide free access to vast knowledge bases and as an ideal platform to disseminate information generated within. They acknowledge the impact of knowledge in social development and improving quality of life. In responding to the needs of the society and taking advantage of technologies available, technologically advanced countries, have embarked on a number of Open Archive Initiatives. These include electronic journals, institutional repositories and electronic theses & dissertations. Examples of these initiatives are Scientific Electronic Library Online, ([www.scielo.org/index.php?lang=en](http://www.scielo.org/index.php?lang=en)) Networked Digital Library of Theses & Dissertations ([www.ndltd.org](http://www.ndltd.org)) & Dspace ([www.dspace.org](http://www.dspace.org)). Although all three initiatives are embarked on their mission on Open Access at institutional level, the originators were fully aware of their potential in global application and have invited partnership of other organizations with similar needs.*

*The Caribbean has access to these partnerships, but the responses have been slow. There is recognition of the need to be part of global digital information paradigm at regional, national and institutional level. These are opportunities Caribbean librarians can monopolize, because librarians have been responsible for processing, archiving and dissemination of information as well as related issues such as copyright. In most Open Archive Initiatives that are well established and gathering momentum, librarians have been part of the team, making substantial contributions. Globally, librarians are being challenged to manage digital information resources. In the Caribbean, librarians have opportunity to take the leadership by being vigilant of developments in Open Archive Initiatives, studying the application of these initiatives in relation to institutional, national and regional plans and then by taking the leadership to introduce applications and convince leaders in taking partnership with already established initiatives.*

## Introduction

Technological advancements in handling information offer boundless opportunities in producing, processing and presenting scientific and technical information. Universities, government agencies, international institutions and even commercial entities are collaborating in preparing and testing methodologies for electronic publishing and powerful searching and standardizing tools to facilitate the process. Scientific journals monopolized mostly by commercial publishers for profits, were the primary source of publishing research until a few years ago. Technologies in electronic publishing were also limited to those commercial entities.

## Global Trends in Communicating Scientific Information

The scientific journal has so far been the most significant means of scholarly communication. A few commercial publishers dominated the industry. As a scholarly publication, the journal is very much different in its basic characteristics from any other commodity.

Scholarly output is a product of research and institutions provide funds for research. The value of the product is measured by level of impact, and as a result researchers make all attempts to publish this research output, in high impact journals. High impact journals especially in the biomedical sciences charge a fee for publishing research papers and they also demand the transfer of copyright. When a paper is published in one of the high impact journals, the access to the journal is through the payment of high priced annual subscription or licensing fees. Most institutions that fund the research cannot maintain the consistently rising cost of these journals.

In the past the burden of the journals subscriptions was entirely carried by the library of the institution and it had implications on the book vote. Now this has become a mainstream topic debated by institutions, researchers and even by the media. In the United Kingdom the debate prompted a parliamentary enquiry to examine not only subscription fees of print and online journals but also public accessibility, the integrity of the

scientific process, business practices of scientific publishing and its future. Library associations on both sides of the Atlantic have submitted their case to the British Parliament. ([www.parliament.uk/parliamentary\\_committees/science\\_and\\_technology\\_committee/scitech111203a.cfm](http://www.parliament.uk/parliamentary_committees/science_and_technology_committee/scitech111203a.cfm))

In 2003, several major American universities including Cornell and Harvard announced cancellation of a large number of journals published by Elsevier, the world's largest science publisher. Led by two scientists from University of California, the boycotting of six journals published by Cell Press owned by Elsevier that cost US\$90,000 is another twist to the saga of the journal. They circulated letters to their colleagues asking them to stop submitting papers and reviewing articles for them and also to resign from editorial boards.<sup>1</sup> The result of these initiatives on journal prices is yet to be seen, but there are groups other than librarians who are interested and concerned about the issue.

When MEDLINE, the most comprehensive digital bibliographic database in the biomedical and life sciences was made available free online, Harold Varmus then the director of National Institute of Health (NIH), suggested that NIH establish an open archive of research papers in health and life sciences. PubMed Central was the result of this initiative. This did not put commercial publishers out of business, but it did have an impact on the journals. Some of the publishers of subscription journals started to offer free access to back issues of their journals through PubMed Central. As it is now, a large number of journals are available free, only online in every subject field and these numbers will continue to increase. This is a turning point for the journal as well as for electronic publishing.

Since then, trends in producing and distributing scientific information have been changing to facilitate 'anytime anywhere access'. Collaborative efforts are being made to introduce a number of Open Archive Initiatives to encourage electronic publishing for a wider audience including free access to new scientific information via the Internet. Dynamic technologies are emerging to enhance the contents of research output and to facilitate exhaustive retrieval of information. The methodologies produced for such initiatives facilitate publication of complete journals, articles, preprints, technical reports, conference papers, theses, images, datasets, audio/video files and learning objects. Electronic publishing with multi-media

liberated the expression of ideas and improved the presentation of contents. Through these initiatives, not only are many of the scientific papers now accessible free of cost, but the participation of other institutions and authors is also further encouraged. The prospect of creating structured texts using metadata and hyperlinks to facilitate optimum retrieval of data further enhances research communication in any field of study. These methodologies are made available free of cost with instructions on installation, modification and use, to facilitate participation of other institutions who recognize the need for open access to their institutional information resources.

These developments did not change significantly the cycle of scientific journal publication by commercial publishers in terms of publishing policy or subscription rates. However, it impacted on the way scientific information is communicated. In less developed countries, these new trends have had a considerable impact by providing more opportunities to overcome the financial constraints restricting production and dissemination of traditional books and journals. It also provided more opportunities for less recognized authors to publish and effectively changed the way of communicating scientific research in the developing world. A good example of this is electronic publishing of Cuban health science journals, which was initiated to overcome the financial difficulties the country faced in early 90s and this has been very successful.

(<http://scielo.sld.cu/scielo.php>). The Scientific Electronic Library Online (SciELO) ([www.scielo.org](http://www.scielo.org)) International Network for the Availability of Scientific Publications (INASP) ([www.inasp.info](http://www.inasp.info)) that has recently changed to African Journals Online, ([www.ajol.info](http://www.ajol.info)) and Biomed Central ([www.biomedcentral.com](http://www.biomedcentral.com)) are further examples of the way scientific communication is making changes.

Academic institutions are initiating institutional repositories that may include preprints, data sets, theses, dissertations and electronic journal publishing. They encourage researchers to publish in free access journals and invite other institutions to participate in these initiatives. These institutions continually apply technologies available to improve methodologies for improving content, quality and search capabilities of institutional repositories. They offer fora for discussions and invite others to participate, use, and improve methodologies. These methodologies are made available on the Internet as 'Open Source.' The

leaders of these initiatives met in Budapest in 2001 to examine the possible collaboration to improve and expand the concept. Since then 'Open Archive Initiatives' has continued to gather momentum in a number of areas related to scientific communication. Within the next few years, if these trends continue in the same direction and authors appreciate and support the open access concept, the result could be an elimination altogether of commercial journal publishing. Therefore, major commercial publishers of journals may attempt to minimize the impact on their monopoly by making changes on the availability of their journals. These anticipated changes could have a positive impact on library management, particularly in periodical expenditure that often consumes up to 80% of the book budget. Hence it is fitting that librarians should keep a close watch on these developments.

### **Global Endorsements in Information Communication**

Information technology provides a means of free access to information and free expression of ideas that makes it a useful tool for social and economic development. Information is knowledge and knowledge is a result of investment in research. If the knowledge is not made globally available, then it cannot be utilized fully for further research that could generate more knowledge. There has to be a mechanism to communicate this knowledge without social geographical division or any other types of barrier.

*Universal Declaration of Human Rights of United Nations (UN)* stipulates

*'Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media regardless of frontiers.'* Article 19<sup>2</sup>

Here the UN recognizes the existing barriers 'to seek' 'to impart' information.

*The World Summit on the Information Society* held in Dec. 2003 in Geneva reaffirms the Declaration and in their proposed plan of action elaborate:

*'Support the creation and development of a digital public library and archive services, adapted to the Information Society, including reviewing national library strategies and legislation, developing a global understanding of the need for "hybrid libraries", and fostering worldwide*

*cooperation between libraries. Encourage initiatives to facilitate access, including free and affordable access to open access journals and books, and open archives for scientific information.'*<sup>3</sup>

*Organization for Economic Co-operation and Development (OECD)* Committee for Scientific and Technological Policy had a ministerial level meeting of member countries in January 2004. (No Caribbean country is a member of OECD) At this meeting they recognized that:

*Fostering broader, open access to and wide use of research data will enhance the quality and productivity of science systems worldwide and they adopted a Declaration on Access to Research Data from Public Funding.'*<sup>4</sup>

The countries represented at the *Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the World Summit on the Information Society* in collaboration with ECLAC, agreed:

*'Our countries, aware of the need to generate equal opportunities for access and use of information and communication technologies, are committed to taking action to overcome digital divide, which both reflects and is a factor in the differences that exist between and within countries in terms of economic, social and cultural aspects, education, health and access to knowledge'*<sup>5</sup>

The members further adopted:

*'Steps should be taken to promote broad-based, inclusive access to the information society for the population, not only as consumers or users but also as stakeholders or full-fledged participants, that is to say as suppliers, innovators, creators and originators of content and application. The creation and preservation of indigenous, local and traditional knowledge and the promotion of multilingualism in cyberspace are fundamental. To these ends, the best possible use must be made of resources by sharing socially useful software application and content'*<sup>6</sup>

The recognition and commitment of application information communication technologies in preservation of knowledge, the collaboration between stakeholders and the recommendation for useful software application are important issues that need further elaboration by individuals or organizations that are directly involved in the process.

*The University of the West Indies* in its five-year development plan for 2002-2007 explains the direction the institution should be moving:

- To achieve more widespread use of infusion of IT in enhancing teaching and learning effectiveness for all students.
- Facilitate 'anytime, anywhere access' to the institution's computing and networking services and to information resources.
- To use the World Wide Web to project the University more effectively
- To provide support for academic staff to gain competence in application of new technologies to programme delivery.
- To take steps to disseminate best practice and insights gained by early adopters of the technology<sup>7</sup>

These statements illustrate that there is awareness and general agreement at highest global, regional, local and institutional level that the unrestricted access to information both as consumers and producers of information, is the key to development and improving quality of life. Also within the region there is agreement at highest level, on the need to follow early adopters, best practices and insights in technologies.

## **Opportunities**

The UN, as well as regional and local agencies recognizes trends in the communication of scientific information. These trends are essential for social development and for an improved quality of life. The technologies are available and we have every opportunity to take the initiative to be a part of these networks. At all levels, organizations make recommendations on use of information technologies to facilitate reaching a broader perspective. However, individuals who are directly involved in actual work need to recognize the link between fundamental objectives and the smaller roles they must play within their own capabilities and expertise to guide the organization to achieve stated objectives based on a broader global plan. We as librarians, I believe have a substantial role to play in addressing the use of information technologies in communication of scientific research, because we are part of this process as information processors, disseminators and archivists. Librarians have not been directly involved in producing information in the past, but continued generation of information is the very same reason why libraries exist. So, when the

opportunity arises, it could be to the advantage of our profession as librarians to be part of this process.

In order to participate in this process, we need to recognize our areas of expertise, be able to apply this knowledge to global trends and convince the authorities at institutional level, of the way forward to reach the objectives already set out. It is the progress made at home that contributes to the global plan for equity, social and economic development, and specifically in eliminating the digital gap in communicating scientific research.

In the Caribbean, we are more fortunate than many developing countries to have well established telecommunication infrastructure, Internet connectivity in most territories and the endorsement from local and regional authorities to exploit possible application of emerging technologies. These are all favorable conditions in which to embrace opportunities that are available globally for communicating scientific research.

With this point of view, there are number of initiatives that can guide us in following global trends in communication scientific research. In this presentation, three initiatives are introduced and explored as examples of areas of leadership that we as librarians can pursue to make our contributions in this process.

### **1. Electronic Journals**

In the Caribbean, publishing scientific information has been limited primarily to journals and conferences. There are only a very few journals published in the region and their distribution is limited. Caribbean authors who publish in international journals get some recognition, but regional journals have been caught-up in a vicious cycle. As a result of limited circulation and usage, the journal impact factor determined by citation indexes remains low. Local authors choose to publish in more prestigious journals over local journals, for greater recognition. Our Brazilian counterparts express this dilemma in a dramatic way:

*'We, Brazilians, are very interesting and creative; we improved a lot (of) our journals, with a rigid editorial guideline and specific financing from development agencies. Afterwards, these same agencies establish a criterion (QUALIS) that does not favor our journals, except one of them promoted in exception, because these journals do not reach the minimum impact factor established by the agencies, even though they are ISI indexed. As a consequence, we submit our*

*best papers to foreign journals, which present a higher impact factor and, (by) doing so, hoping to reach Capes' QUALIS or, maybe, the "Third World Nobel Prize", we contribute to lower the quality of our own journals. Brazilian science has improved, but the conscience of part of the Brazilian scientific community did not improve in the same level! QUO VADIS?'<sup>8</sup>*

This is a big challenge for the Caribbean journal as well. Having the technology available and using it in scientific communication does not necessarily mean that all stakeholders of the process will cooperate without reservations. Here some authors as individuals may lose some global recognition in the short term, but to accomplish the longer term objective of eliminating the digital divide requires sacrifice and commitment. At the institutional level it is also necessary to understand that a set of guidelines need to be set to avoid paradoxical workflows that can result in a conflicting state of affairs similar to Brazilian experience.

Methodologies in electronic publishing of journals are easily available via networks. SciELO is one such methodology that is available to all Caribbean islands from BIREME, the coordinating center for Latin American and Caribbean Health Information Network. It is a powerful tool that can help overcome number of challenges facing Caribbean journals. Diverting from printed journal to e-journal minimizes production cost. Since there is no printing cost, limitation on the number of pages in each issue and the number of issues published each year can be lifted allowing more articles to be published in per issue. Online submission and online review processes can expedite publication with information being passed on much faster than in the printed journal. The Peer-review process can be more transparent to encourage local authors to submit papers. Further more, preprint status, data sets used in research process, communication on the research and any bias authors may have can be made visible with links from the final research publication. The World Wide Web provides global visibility and accessibility that could not have been possible with printed journal. Hypermedia and multimedia can enhance expression of ideas. Metadata harvesting protocols facilitate content retrieval by search engines much more effectively.

The SciELO methodology in its mark-up language, tagging of reference lists in each article to create its own citation index. Brazilian scientific journals have proved by electronic

publishing and creating their own citation index that Brazilian journals as well as authors deserve more recognition than the Science Citation Index is prepared to offer. Now a few Brazilian journals are included in the Science Citation Index. It has been suggested that:

*'One area that is affected by the free availability of papers to readers is the visibility and impact of the papers. Initial research is beginning to show that papers that are open access are cited more frequently than those that are only available to subscribers. A move to the open access model should see an increase in a journal's impact factor.'<sup>9</sup>*

Nature reports of a survey on impact factor on free online papers in 2001 recognized that efficient and comprehensive search methodologies are needed to see the impact of free availability. Yet, in analyzing over 100, 000 conference papers for the impact factor, it was stated:

*'The results were dramatic, showing a clear correlation between the number of times an article is cited and the probability that article is online. More highly cited articles, and more recent articles, are significantly more likely to be online, in computer science. The mean number of citations to offline articles is 2.74, and the mean number of citations to online articles is 7.03, an increase of 157%'*

And it was suggested:

*'Free online availability of scientific literature offers substantial benefits to science and society. To maximize impact, minimize redundancy and speed scientific process, authors and publishers should aim to make research easy to access.'<sup>10</sup>*

The SciELO methodology is free and BIREME provides technical assistance and training. Brazil, Chile, Cuba and Spain are already in the Network and the system include subject areas in biology, agriculture, social sciences, engineering, psychology, health science, maternal and child health. Other countries including Jamaica are examining the implementation process. One issue of the West Indian Medical Journal has been already published in electronic format on an experimental basis, and that journal is now in the process of securing resources for full implementation. Once the methodology is in place, a good part of the process, involves the indexing and cataloguing techniques that are familiar to librarians and librarians play a significant role in countries participating in SciELO Network.

Academic librarians have been proactive in responding positively to opportunities emerged resulting from the advancement of technology. The *Journal of Insect Science* <http://www.insectscience.org/> was a result of good communication between librarians and faculty at University of Arizona. The editor provides his time and the library provides about 10 hours staff time per week and server space. The editor comments on the advantages of this collaboration as the libraries dedication to freely accessible information, expertise available within the library, availability of archiving and understanding of its importance, library's influence in initiating networks such as Scholarly Publishing and Academic Resources Coalition (SPARC) and the understanding of non-profit status of university research.<sup>11</sup>

We, as librarians in the Caribbean, specifically at the UWI should not be any different from any other academic librarian. We shared the same responsibilities and interest before the technological transformation. While this transformation is taking place we made adjustments. Now it is the time to recognize the trends in scientific communication, and follow what our counterparts are doing in other parts of the world, in particular in the developed world and be proactive in initiating projects that makes can a difference to the institutions we serve. There are opportunities and our challenge is to take the leadership, and not wait for the organization to ask us. There are other groups who are interested in electronic publishing of journals and other open access issues. If we wait, nobody may ask our opinion or our participation, but the current trends in communication scientific knowledge will be introduced to our institutions anyway and be carried out, because that is where other institutions are going.

## **2. Institutional Repositories**

The institutional repository is defined as:

*'A university-based institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organization and access or distribution. While operational responsibility for these services may reasonably be situated in different organizational units at different universities,*

*an effective institutional repository of necessity represents collaboration among librarians, information technologists, archives and records managers, faculty, and university administrators and policymakers. At any given point in time, an institutional repository will be supported by a set of information technologies, but a key part of the services that comprise an institutional repository is the management of technological changes, and the migration of digital content from one set of technologies to the next as part of the organizational commitment to providing repository services. An institutional repository is not simply a fixed set of software and hardware'<sup>12</sup>*

Around the world researchers and academics have been archiving papers, teaching material preprints and any other documents in their own computers, or on compact disks. However, this method of archiving was not only un-reliable but also lacked standards, search capability, and any possibility of sharing by a larger readership. At the Massachusetts Institute of Technology (MIT) the academics asked the Library Director to find a reliable way to archive their teaching material they had in their own websites, because they thought that Library knew about archiving. When investigated the request with the help of the Faculty Advisory Committee to the Library, they found that convergence of faculty needs, MIT's commitment to Open CourseWare and other campus initiatives made development of a digital archive a natural fit. In collaboration with Hewlett Packard MIT initiated a 1.8 million-dollar project to establish a one of a kind institutional depository and DSpace ([www.dspace.org](http://www.dspace.org)) is the result of this effort. From the beginning, the MIT team wanted to create a repository that would serve the needs of the MIT as well as other research universities with similar needs. Its objective is to include digitized versions of lecture notes, videos, papers, and data sets—in short, everything produced by faculty and staff and to provide a tool to assist universities, particularly research universities, with making research material more easily available, through Open Access. Its two main functional aspects are preservation and access to research material.

There were number of priority concerns in making the plans for DSpace.

- Long term preservation
- Accommodating various types of documents prepared using variety of applications,



- Providing sophisticated search function (metadata)
- Customizing metadata to specific disciplines but searchable and manageable across the entire system
- Developing distinct levels of authorization to accommodate a range of access privileges
- Providing sufficient flexibility to facilitate each department of the institution could develop its own method of submitting documents
- Interoperability or share content seamlessly with other institutional archives
- Inexpensive to upgrade
- Suppressing visibility of early pre-publication manuscripts, but yet hold it in the archive (tombstone)

The DSpace system is freely available as open source software and anyone can download, modify and use it at any institution. Already DSpace digital repository system includes dozens of sites around the world, using a variety of hardware platforms and operating systems. As it developed they established DSpace Federation to facilitate collaboration with other universities or research organizations that share similar concerns and problems. The Federation has a core group of eight universities who are evaluating DSpace in different institutional contexts. Another 120 institutions worldwide are looking into the system with an interest in participating. According to their statistics the system has been downloaded more than 5000 times. This means DSpace is gathering momentum and will lead the way institutional repositories are operated.

This is our opportunity to take the leadership in introducing the need to be part of institutional repositories such as DSpace and guide our institutions in this direction. It will be a challenge to get the attention of the stakeholders. Even in DSpace member institutions including at MIT not every academic is embracing the idea instantly to give open access to any information they produce. However, as technologies develop in scientific communication, not only there will be recognition and appreciation for such initiatives, but also it will be necessary as academics and researchers to be part of this trend.

### **3. Electronic Theses & Dissertations (ETDs)**

Theses and dissertations (TDs) constitute the primary research output of any university.

They reflect the calibre of academics the institution has and the quality of research it produces. Digital technology has changed the way TDs are produced, processed, archived and made available for use. In most academic institutions, including at the UWI, TDs can be consulted only at the institutional library and visibility was minimal. As such possible recognition that could have been received by authors, advisors and for the institution was restricted. The presentation method was print media that restricts the power of expression (multimedia) of ideas. Access was primarily through library catalogue by limited access points. Now the technology provides for global visibility, powerful expression of ideas through multimedia and hypermedia technologies and maximum accessibility that facilitates content search using metadata.

The Networked Digital Library of Theses & Dissertations (NDLTD) ([www.ndltd.org](http://www.ndltd.org)) is the largest and fast growing initiative for electronic publishing of TDs. NDLTD started in 1989 with a small group of members and today it has 201 members: 174 universities that include 7 consortia and 27 institutions. Its objectives are:

- To improve graduate education by allowing students to produce electronic documents, use digital libraries, and understand issues in publishing,
- To increase the availability of student research and to preserve it electronically,
- To lower the cost of submitting and handling theses and dissertations,
- To empower students to convey a richer message through the use of multimedia and hypermedia technologies,
- To empower universities to unlock their information resources and to advance digital library technology.

The NDLTD system is freely available and the membership is free. The established experienced members also provide guidance and technical support to new comers. There are only a few universities from developing countries participating in the Network and the Executive Committee invites participation from this group. UWI, Mona is already part of the Network. Although the other two campuses recognize the advantages and in principle, accept the need to participate, no commitment has yet been made. A project proposal has been submitted to the Graduate Studies Committee of the UWI, but nobody has taken the responsibility to lead the Project at Cave Hill and St. Augustine. NDLTD membership

site <http://tennessee.cc.vt.edu/~lming/cgi-bin/ODL/nm-ui/members/index.htm> links team from each institution that is responsible for the ETD Project. Almost every organization includes a librarian on the team. Then, why not librarians at UWI? If we don't, who else should be leading this initiative?

## The Challenge

Librarians are the main pillars of these three global initiatives. This is not surprising as all three initiatives deal with information production, preservation, processing and making information available to the public. In the traditional library systems, we librarians managed all of these tasks except the production. The information production has an impact on how libraries are operated. We changed our processors, services to suit the digital world and we learnt very quickly. We acquire digital resources and not only learn how to use them but we also guide our users through our regular 'information literacy' programmes to allow them to utilize the digital resources we offer through the library. Librarians perform much of their duties differently now compared to a few years ago.

Top-level institutional leaderships call for librarians to participate in digital archiving. The retired president of University of California says:

*'If universities continue to operate the way we do now, our library collections will grow—but their scope and depth will diminish precipitously. It is the responsibility of top university leaders to lead the charge for a realistic assessment of how we can head off an otherwise inevitable loss of academic resources.'*<sup>1</sup>

He challenges the Librarians:

*'Libraries need to demonstrate that local maintenance of infrequently consulted print materials undermines, rather than enhances, faculty members' access to research; money that could be used to add to the breadth of shared collections flows instead toward acquiring and managing duplicative local holdings'*<sup>2</sup>

We should not shy away from these initiatives and hope that somebody else will take the lead. We tend to feel that this is a technology expert's responsibility. In all other professions, technology expert's job is to support the process and workflows by creating software and systems to accommodate these procedures. We as librarians must know the process and must

establish workflows in managing knowledge. Processing electronic documents is not far different from cataloguing and indexing. It is the same concept, but performed in a different environment. Librarians are familiar with these standards, procedures, copyright issues and networks. We need to recognize the similarities of digital and printed resources identify differences and apply our knowledge to find ways to manage digital information resources. We should also be fully aware of global developments in production, archival and distribution of digital information and take the leadership in convincing the institutions we serve the importance of being part of these developments. This is an opportunity the librarians have never had before in influencing the information communication process within the institutions they serve and it is also a clear path to be recognized as part of the academia.

These three initiatives can support electronic production of almost all the research material produced in the Caribbean. One can imagine a virtual library that contains every bit of research in the Caribbean made available via global networks. The collaboration with these or similar initiatives can make the Caribbean researchers, institutions and research itself visible and accessible, hence gain more recognition. The Caribbean community, specifically researchers and academic communities will have a better appreciation and an understanding of digital publishing issues and be more competent in retrieval of information. Sooner or later every academic institution will be part of these digital networks. Librarians have an opportunity to be leaders in all three initiatives.

MIT president calling on libraries to accelerate the open sharing of knowledge says:

*'We respect the rights of others and the copyright law, but we hope to accelerate the movement towards open sharing of knowledge. The expertise of research librarians in issues of copyright and intellectual property is an extraordinary asset and must be shared broadly.... Today's stewardship of accessible knowledge is inherently interdisciplinary and necessarily connects the full range of activities from archiving to publishing. University research librarians are central to managing this complex range of activities and can play a major role in accelerating efforts towards the open sharing of knowledge'*<sup>3</sup>

Can we take on the challenge?

## Endnotes

<sup>1</sup>Faith McLellan, 'Publishers face backlash over rising subscription costs' *Lancet* v. 363, January 3, 2004, pp44-5

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<sup>3</sup> 'Plan of Action' World Summit on the Information Society, Geneva, section (h), Dec. 2003, p.4 [http://www.itu.int/dms\\_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0005!!MSW-E.doc](http://www.itu.int/dms_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0005!!MSW-E.doc) . Date visited March 2004

<sup>4</sup> Science, Technology and Innovation for the 21st Century. Meeting of the OECD Committee for Scientific and Technological Policy at Ministerial Level, 29-30 January 2004 - Final Communiqué, [http://www.oecd.org/document/15/0,2340,en\\_2649\\_34269\\_25998799\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/15/0,2340,en_2649_34269_25998799_1_1_1_1,00.html) Date visited March 2004

<sup>5</sup> Bavaro Declaration p.1 [http://www.indotel.org.do/WSIS/Docs/f\\_declaration/final\\_declaration\\_Bavaro.pdf](http://www.indotel.org.do/WSIS/Docs/f_declaration/final_declaration_Bavaro.pdf) Date visited March 2004

<sup>6</sup> Bavaro Declaration p.6 Date visited March 2004

<sup>7</sup> *The University of the West Indies: Strategic Plan II 2002-2007* pp16-17

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<sup>9</sup>David Prosser, 'On the transition of journals to Open Access' in *ARL Bimonthly* v.227, April 2003, p.1 <http://www.arl.org/newsltr/227/openaccess.html> Date visited 3/9/04

<sup>10</sup> Steve Lawrence, 'Free online availability substantially increase a paper's impact' *Nature* v.411, 31 May 2001, p.522

<sup>11</sup> Elaine Nowick & Caludine Arnold Jenda 'Libraries stick in the middle: Reactive vs. Proactive responses to the science journal crisis' in *Issues in Science and Technology Librarianship* No. 39, Winter 2004, p.5 <http://www.istl.org/04-winter/article4.html> Date visited 3/15/2004

<sup>12</sup> Clifford A. Lynch 'Institutional repositories: Essential infrastructure for scholarship in the digital Age' in *ARL Bimonthly* v.226, Feb 2003, p.2 <http://www.arl.org/newsltr/226/ir.html> Date visited 3/9/04

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2. Richard C. Atkinson, p.3
3. Judith Matz, 'MIT President calls on libraries to accelerate the open sharing of Knowledge' in *ARL Bimonthly Report* No. 224, Oct. 2002, p.2 <http://www.arl.org/newsltr/224/index.html> Date visited 3/10/2004

# **Multicultural Access to Information in the Digital World: Latin America and the Caribbean: Can Libraries and Archives (Public and Private) Provide What They Need?**

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*In the virtual world of access to information, geographical boundaries that traditionally marked the physical borders of nations lose that significance in meting out access to information; and hence, there is little real meaning to information boundaries on the Internet. Language barriers have also ceased to be a major factor in gaining access to some information, since there are a number of automated translation programs that can provide some access to material originally in a language not available to the information seeker. Additionally, both for-profit and non-profit providers of information are automatically providing several levels of access in languages other than the language of the provider. With physical borders and language barriers playing less meaningful roles in information access, are there yet other barriers that affect how information may be made available on an international, multi-national, or multicultural basis? Are these barriers imposed by national mandate; by license restrictions; by culture and tradition; by hardware and software; or by the user's imagination? Or does each of these factors play its own idiosyncratic role for a multicultural information seeker's success in securing access to information? The University of Florida (UF) – a comprehensive research university – is home to several thousand foreign students and faculty (and accompanying family members) for whom the library's mission is to provide improved access to library resources, not only via the traditional means of paper and microfilm/fiche, but also through innovative access to electronic materials. Contrary to popular opinion, all information is not available in full text for no charge on the Internet. The university libraries must therefore try to bridge the gap between access to information for free and for fee. Collection management librarians in consultation with faculty and students build the collections, provide expertise in using them, and work to insure their preservation. And nowhere are these efforts more evident than in the university's Latin American collections, which encompass all media of information, including electronic resources. The Latin American Collection (LAC) at UF is one of the major repositories for research materials in the area of Latin American Studies, and is possibly the world's premier collection for Caribbean library holdings.*

In my paper, I plan to outline the background against which access to information takes place in the multicultural (and digital) world, explore some of the initiatives that the University of Florida library system has undertaken to provide resources to meet the multi-cultural information needs of our academic community with a special emphasis on Latin American and Caribbean resources, lay out the bases that impelled us to those initiatives, and relate some of the successes so far encountered as well as review proposed projects and initiatives.

In the digital world, national boundaries that mark the physical borders of nations and control access to information no longer have the meaning they had in the past. Nor is language a major impediment in gaining access to information, since there are a number of automated translating programs that will provide some access to material originally in a language not available to the user (although such translations are arguably imperfect in many ways).<sup>1</sup> Additionally, Internet providers of information are increasingly including several

languages as entry points to the information they offer. With physical borders and language differences playing less meaningful roles in information access, the barriers most significant today are those imposed by hardware and software, by marketplace realities (license restrictions), by culture and tradition (national mandate), and by a person's own imagination.

Although the prices for hardware and software continue to decrease – thus making such products more readily available to users, there remain significant obstacles to the easy exchange of information: an increased need for larger and faster hardware speed and memory; direct digital access versus access through a high-speed (or much slower) modem; the ever-present requirement for patches to “fix” the inadequacies of widely used software; the interoperability (or lack thereof) of Internet browsers with individualized software programs (does the software work with both Internet Explorer AND Netscape, and which versions of which browser?). Even beyond these challenges

are the most basic requirements for functional access to the digital world: the infrastructure of telephone and cable lines as well as satellite links for wireless access. A brief review of estimated online users in the world reveals that even in Europe, there are many nations that have yet to make the transition to functional use of the digital world.<sup>2</sup>

While resource users might prefer access to all information immediately for free, the marketplace of supply and demand dictates the reality that 'free access' is for many 'fee access'. In academic settings from primary school and K-12, through university, the information that is accessible to students and faculty is information that is most often available for free to the users, but is paid for by the libraries through their institutional administrations. Information vendors provide their wares for fees that are negotiated by individual institutions as well as consortial groups, and while I do not want to belabor the obvious, the vendors must make a profit to stay in business. And so, negotiations eventually reduce to a reality in which institutions with funding can purchase the most information, while those with least funding cannot. In their 2001 report on licensing principles, the Inter-national Federation of Library Associations (IFLA) noted that beyond the basic negotiations, "the licensing of electronic resources takes place in a worldwide marketplace. Libraries and consortia are increasingly called upon to sign contracts with vendors from around the world, as international barriers to the flow of information are invisible over the Internet. Today, libraries around the world continue in their role as mediators between citizens, including those affiliated with specific institutions, and information and cultural expression – roles that persist more energetically, it appears, for electronic information than for print."<sup>3</sup> When moving beyond the industrialized nations, the number of takers for the vendored information decreases significantly. Only in a few instances have some publishers, most notably Reed Elsevier, HighWire Press (Stanford University) and Kluwer (soon to be Springer), made decisions to provide similar levels of information to non-industrialized nations, principally in Africa. And a number of organizations have developed programs to deliver high quality scientific journals at low cost to developing countries.<sup>4</sup> Although the marketplace provides the information, the

infrastructure needed to take advantage of the availability of this information is lacking, and hence the real advantage of the proffered information can not be taken.

Beyond the areas of infrastructure and marketplace are the challenges that information users face from their own as well as other traditions and cultures. One of the most revealing of the 'new' traditions is that 'lingua franca' has become 'English Language' as a means for universal communication and access to worldwide information resources. For example, in performing an Internet search via Google, the results at non-English-language-based sites can be immediately translated from several Western European languages: French, German, Italian, Spanish, Portuguese into English; however, non-English speaking countries, in their Google search engines, do not appear to provide the same translating option for English-language-based national websites; for example, on the Gabriel portal (which is the server for the conference of European libraries at: <http://www.bl.uk/gabriel/libraries/>) each national library is listed with the languages for which there are translations from the national language (English is predominant, with French and German often available). Google has recognized this English focus and introduced a language tools page ([http://www.google.com/language\\_tools?hl=en](http://www.google.com/language_tools?hl=en)) and the ability to set preferences for a specific language; yet it is clear that this is a relatively new project that is still seeking participants. However, organizations and individuals whose language is English have been notably slow in providing access in languages other than English. For example, while many national libraries noted above provide English versions of their web pages, this is not the case at the British Library, the Library of Congress, or the libraries of universities (including the University of Florida) in the United States.<sup>5</sup>

Kurt Mills, in a 2002 article<sup>6</sup> in *Global Society*, notes that with the shift to non-border based information delivery, both an explosion of views and a restriction of views via the Internet are taking place. He cites examples of this use of the Internet for the Kurdish people, the Tibetan people, Saudi Arabia, Iraq, the Vatican, and the website Patenia (une Diocese sans frontiers). Mills notes: "The 'virtual' is overtaking the 'real'. Virtual cash evades the control of governments and can even bring economies to

their knees. Ideas also evade the grasp of governmental censors, whether they are about human rights or racial hatred. Territorial boundaries are rendered meaningless as bits and bytes, electrons, data, faxes, and images sped along fiber optic cable, up and down satellite links, and through the matrix of cyberspace.” He continues rather wryly: “In fact the Internet shrinks time and space such that borders ‘virtually’ disappear and appear significantly less relevant to the construction of identities and communities and allegiances. ... Of course there are still many countries, most notably in Africa, which have no Internet access, or where such access is restricted to the expensive hotels that foreign businessmen inhabit.”

A recent study by Carol Tenopir for the Council on Library and Information Resources (CLIR) brought out some findings that are germane to the concept of one’s own imagination as both a limiting and expanding factor in our use of information.<sup>7</sup> Another study sponsored by the CLIR and the Digital Library Federation focused on the information-gathering patterns of faculty and students.<sup>8</sup> Both reports describe patterns of use in today’s digital world that lead to the following observations:

- There is no one right solution for services or system design for every subject discipline.
- College and high school students use the Internet more than the library for research, and many believe they are more expert at searching than their teachers.
- Subject experts use hyperlinks to view related articles; students’ use of hyperlinks is less clear.
- In terms of information seeking, today’s researcher seems to be comfortable with using a wide variety of sources for information. Internet search engines, e-print servers, author Web sites, full-text databases, electronic journals, and print resources are all used to some degree by most users.
- The relative amounts of use and enthusiasm for use vary, but today’s users are mostly flexible and adaptable.
- Unfettered access to electronic collections will result in an increasing use and reliance on electronic resources, although a certain percentage of use in many disciplines will

continue to come from print resources for some time to come.

- Virtual reference services are needed to accompany this shift, as are better ways to count and report virtual library use.

Having laid out the background against which – we posit – information seekers from many different cultures might be operating, we looked at our own institution, the University of Florida, to analyze both progress made and barriers remaining in the digital world for our user groups. The University of Florida is a comprehensive research university with approximately 49,000 students, and more than 90 doctoral programs. Our institution has identified in its current strategic plan several major areas of concentration, including science, technology, medicine, and the strategic goal that is most germane to today’s presentation: internationalizing the campus and curriculum. While perhaps less a direct consequence of the university’s efforts to develop these areas of concentration than simple geographical proximity to the Caribbean and Latin American in general, the University has nonetheless become home to about 2,700 international students as well as to a diverse multicultural faculty. To turn our focus to efforts in the area of internationalization, the University is also growing its programs for study abroad

(<http://www.ufic.ufl.edu/oss/studyabroad.html>),<sup>9</sup> for global distance learning (<http://www.fcd.ufl.edu/>),<sup>10</sup> and for an increasing number of international research programs (<http://bear.cba.ufl.edu/centers/ciber/>).<sup>11</sup> There are also concentrated efforts at internationalization in many Latin American and Caribbean nations through the university’s Institute of Food and Agricultural Sciences (IFAS) relationships with Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Haiti, Honduras, Mexico, Nicaragua, Panama, Uruguay, Venezuela, and the West Indies.<sup>12</sup> Additionally, IFAS has established exchange and development programs with Nicaragua, Panama, Egypt, Ecuador, and Malawi.<sup>13</sup>

Campus libraries strive to provide access to information resources in support of all these efforts. Just as importantly, the libraries also aim to provide the necessary levels of instruction so that its users can benefit most

from both academic resources as well as cultural and social ones. Not surprisingly, the most desirable resources are no longer sought in traditional paper and microforms but through digital content that can be accessed electronically any time anywhere -- within the libraries, at home, in student dormitories, or at a faculty office. With an increasing presence of wireless capability (laptops, Blackberrys, etc.), an information seeker may be anywhere -- cyber café, airport, hotel room, etc -- and gain access to the Internet, e-mail, etc.

Contrary to popular belief (and hopes), the Internet does not provide access to all information in full or even partial text, nor is all information available for free on the Internet. As do many other academic institutions, the UF libraries have expended considerable fiscal resources (more than twenty percent of our budget and the percentage is growing) and called on reserves of staff creativity to acquire what our clientele need and desire -- from historical manuscripts to vernacular news and from unique scholarly resources to popular practical information -- via purchase, collaborative programs, or in-house publication. Much of the publication output that supports our international studies in the areas of Latin America and Africa is still available only in paper, and that status -- we expect -- will continue for some time to come (see data on estimated distribution of online users below). However, as noted elsewhere in this paper, more and more information providers -- for fee and for free -- do provide increasingly greater access to information on the Caribbean and Latin America in languages that are accessible to national speakers. For example, the Wharton School's electronic business journal Knowledge@Wharton has recently announced a collaborative effort with Universia.net and launched: Universia Knowledge@Wharton. The new site, which is published in both Spanish and Portuguese, enables Knowledge@Wharton to reach Spanish and Portuguese speaking readers around the world. Universia.net is the largest university web portal with 635 member universities in Spain, Portugal and Latin America.

All that being noted, and bypassing any additional comments on the resources that we pay for to obtain access for our users, the Libraries have undertaken multiple initiatives -- individually and in concert with other Florida state institutions, funded internally or through

private and consortial support -- to provide electronic access 24 x 7 to such resources as historical manuscripts, vernacular news, in-house scholarly resources, and the output of collaborative effort. The most visible of these efforts is the statewide PALMM project (Publications of Archival, Library, and Museum Materials) at <http://susdl.fcla.edu/collection.html>. This electronic collection of collections includes the following major components that relate to international and multicultural studies:

- The Eric Eustace Williams Collection, which is both a bibliography and a growing library of digitized works by and about Dr. Williams, the first Prime Minister of Trinidad and Tobago who is often called "the father of the Nation" See: <http://palmm.fcla.edu/eeew/>.
- The Florida Heritage Collection, for information on Native American and minority populations, exploration and development, tourism, the natural environment, and regional interests. See: <http://palmm.fcla.edu/fh>.
- Literature for Children, which is a collection of the treasures of children's literature, published largely in the United States and Great Britain from before 1850 to beyond 1950. See: <http://palmm.fcla.edu/juv>.
- The Ringling Collection which is important not simply for its pictures of the idols of a by-gone era but for its depictions of clothing, hair styles, and other indicators of the period's social mores and attitudes. See: <http://web.uflib.ufl.edu/digital/collections/theatre/ringling/index.htm>.
- World Map Collections The Florida and Caribbean collections are particularly strong, but Africa, the Americas, and the Middle East are also represented. See: <http://palmm.fcla.edu/map/>.

As many of us are very aware, library resources do not exist in a vacuum, but rather take their meaning from the interactions and support that library staff provide their users, and nowhere is this more observable (or needed) than in the university's multicultural environment. The libraries at the University of Florida are striving to meet the needs of the multicultural information seeker and to support the University's efforts to promote internationalism. Our overarching goals are:

- to develop the collections and services needed to support the efforts of more traditional library users
- to understand and be sensitive to the larger world (through study, travel abroad, interaction with others from different cultures) and
- to support and assist multicultural users of the resources and services of the libraries.

Collections of resources are being acquired in all formats and from a wide array of sources to carry out this first objective. To meet this need, the University of Florida's collection management goals include the following statement: "Develop knowledge and understanding of the extant bibliographic universe at the national and international level in order to improve user access to research resources." The libraries have a cadre of specialist librarians who are responsible for developing and managing collections and providing services that support the goals of multicultural/ international education. The University of Florida has a Latin American Collection that is one of the leading resources for information and literature from this part of the world, and especially for the Caribbean. Likewise, there are subject specialists who focus on Africa and Asia, on the various regions and languages of Europe, and on the publications of international governmental agencies throughout the world. Collections are built not only of print materials (be they actually in paper or in their electronic virtual formats), but efforts are also made to acquire other formats. For example, the University of Florida has recently acquired and cataloged a large number of motion picture films from Latin America that may provide our students with multi-dimensional insights into other cultures.

And, of course, the digital world makes it possible to access more information and to access it at a distance, although it might also be recognized that some critics believe that the information explosion might prove more useful if it would implode to a certain degree, and thus render more genuine service to needy users.<sup>14</sup> In addition to the PALMM projects noted above which are available – for free – via the Internet anywhere in the world, Florida has undertaken innovative experiments to make some of its own unique holdings available on the Internet. Again, looking at Florida's Latin American collection, the libraries undertook an

early (1990s) project to microfilm, create subject access to, digitize, and make available two important newspapers from the Caribbean: *Diario de la Marina* (Cuba) and *Nouvelliste* (Haiti). At present the microfilm work is complete, but the digitization component is waiting additional funding; information may be found at:

<http://web.uflib.ufl.edu/digital/collections/cnlp/eng/index.htm>. This project - when complete - will not only increase access to these important resources for our students and faculty, but it will also make these resources available to scholars in other countries, including the newspapers' countries of origin, Cuba and Haiti. The methodology will also point the way for other similar projects to proceed when moving into the digital world. This project demonstrates that while scanning and digitizing are labor-intensive and require great attention to detail, the most challenging aspect is providing good indexing and subject access in multiple languages that is accurate and culturally sensitive.

Increasingly the information services libraries and archives offer are delivered not face-to-face but via e-mail or the Internet. In many ways this kind of access facilitates the use of library resources for multicultural users. Instructions and information are presented in Standard English and are less subject to colloquialisms, dialects, and jargon. They can be viewed at convenient times and places, and they can be revisited time and again for clarification. Questions can be asked via e-mail or through an online chat service <http://refexpress.uflib.ufl.edu/>. Some web pages are designed to help users navigate the libraries. For example, a basic reference page provides links to key reference sources <http://www.uflib.ufl.edu/hss/ref/readyref.html>, and a new "Library Survival Skills" page helps users identify and use successfully online resources to aid their research <http://www.uflib.ufl.edu/cm/survivor>.

Special subject pages cannot only list, but also connect, the user to the information needed. Examples of web pages include a business page that leads to the most useful tools with arrangements geared to the way students ask for them (cases, companies, industries, investment) <http://web.uflib.ufl.edu/cm/business/>, a computer science site links to key resources and important pages



<http://web.uflib.ufl.edu/msl/comput.html>, and the Latin American Collection page takes users into the world supported by that special campus library collection <http://web.uflib.ufl.edu/lac/>. The Internet also provides opportunities for training. Posting tutorials <http://www.uflib.ufl.edu/jgs/hand2.htm> along with explanatory handouts developed by library staff <http://www.uflib.ufl.edu/jgs/hand1.html> can provide a great deal of assistance to the multicultural user. A new approach the libraries are using is streaming video as a way of providing an armchair tour of campus library locations <http://www.uflib.ufl.edu/videos/libtour/> and the use of this format for library instruction delivered from a course web page <http://eres.uflib.ufl.edu/>.

In the Tenopir study the author notes "...library policies have intentional and unintentional effects on user behavior. Unfettered access to electronic collections will result in an increasing use and reliance on electronic resources, although a certain percentage of use in many disciplines will continue to come from print resources for some time to come." At the University of Florida, all our electronic resources (as also our print and microform holdings) are available to all our students and faculty (and their family members) as well as any member of the public who uses such materials in our library without restriction, irrespective of any cultural, social, or national bias. As the international world moves closer to a virtual world of free access to information, the experiences that our multicultural users have at the University will convey that same message

## Endnotes

<sup>1</sup> Lavoie, Brian F., and Edward T. O'Neill, "How 'World Wide' is the Web? Trends in the Internationalization of Web Sites," *Journal of Library Administration*, Vol. 34 (3/4), 2001, pp. 407-419. Most interesting in their results is how quickly the raw data have changed from 1998-1999 to 2001-2002, especially for the numbers and geographical distribution of online users. See below.

<sup>2</sup> The vast majority of the estimated more than 600 million people in the world who were online in September 2002 were in Europe, Asia and the Pacific, and the United States and Canada, with relatively negligible representation in

both when returning to their home countries, or through communication with family and friends who continue to reside within their national (geographical) boundaries. And also, irrespective of Kurt Mills's observation that there is an ambiguous future for the virtual community, especially "the Third World where access to many of these technologies is still severely limited," the numbers of online users, even within low-use nations, will increase exponentially if the most recent projections of online users continue to increase.

To conclude this paper I introduce the comments of David Eastwood, vice chancellor of the University of East Anglia, who spoke at a May 2003 meeting of the Research Libraries Group: "The generation of students who are now in our universities are the first generation to come through wholly formed by a multichannel world, by the world of the Internet. It seems to me that this process of cultural knowledge formation means they are very differently positioned from previous generations. They believe that knowledge is out there. They believe that it is relatively easily accessed, and they think it all comes pre-packaged. ... The big question, which we all shy away from, is this: Is the kind of typology of knowledge that we have, which is essentially nineteenth-century typology, appropriate in the twenty-first century? A serious commitment to interdisciplinary, coupled with the digitization of doing research, will have quite powerful consequences."<sup>15</sup> It also seems quite likely to me that the digital world will provide equally powerful (and positive) consequences to multicultural and multilingual information seekers in Latin America and the Caribbean.

Africa, the Middle East, and South America which accounted for less than 10 percent of the total. In most cases such lack of access is due to simple lack of computers and bandwidth as well as in some cases governmental telecommunications policy. As a consequence the actual organization and dissemination of information takes place in the developed world where there is relatively easy access to the requisite technologies. See: NUA Internet Surveys "How Many Online?" available at [http://www.nua.com/surveys/how\\_many\\_online/world.html](http://www.nua.com/surveys/how_many_online/world.html). See also: <http://www.internetworldstats.com/stats2.htm> for data on populations and Internet usage in

the Americas. In the period 2000 to 2004 the projected growth in Internet usage for Central America, Latin America, and the Caribbean is 174 percent; while the overall percentage of the population using the Internet is less than 10 percent, several nations, including Mexico, Brazil, and Chile, have considerably higher percentages. On a worldwide basis, the number of Internet users has more than doubled in the same four-year period with Europe, Asia, and North America accounting for 88 percent of users. In another source, Internet use is calculated to be significantly higher: "Latin American market planning report," (Strategy Research Corp., 2003). In a typical week, Internet usage to access media: Argentina - 41.1%; Bolivia - 38.2%; Brazil - 39.5%; Chile - 28.8%; Colombia - 22.3%; Costa Rica - 35.8%; Ecuador - 32.5%; El Salvador - 15.1%; Guatemala - 27.2%; Honduras - 25.5%; Mexico - 32.2%; Nicaragua - 38.2%; Paraguay - 32.4%; Peru - 29.9%; Uruguay - 34.4%; Venezuela - 33.9%.

<sup>3</sup> "IFLA releases electronic database licensing principles for Libraries," *Online Libraries & Microcomputers*, 0737770, May/2001, Vol. 19, Issue 5

<sup>4</sup> See

<http://www.library.yale.edu/~llicense/develop.shtml>. See also the following World Bank website for listings of low-income countries that qualify for either free or deeply discounted access to electronic resources: <http://www.worldbank.org/data/countryclass/classgroups.htm#Low income>.

<sup>5</sup> In response to perform a Google search at Paris for the British Library, a colleague in the publishing business reported that a Google search that brings up the British Library homepage does not offer that site to be translated into French, whereas, a search for the Bibliothèque nationale de France does produce such an option.

<sup>6</sup> Mills, Kurt, "Cybernations: Identity, Self-determination, Democracy and the 'Internet Effect' in the Emerging Information Order," *Global Society: journal of interdisciplinary international relations*, vol. 16, no. 1, pp. 69-87.

<sup>7</sup> Tenopir, Carol, *Use and Users of Electronic Library Resources: An Overview and Analysis of Recent Research Studies*, Council on Library and Information Resources, Washington, DC, August 2003. <http://www.clir.org/pubs/abstract/pub120abstract.html>.

<sup>8</sup> Friedlander, Amy, *Dimensions and Use of the Scholarly Information Environment*, Council on Library and Information Resources, Washington, DC, October, 2002. <http://www.clir.org/pubs/reports/pub110/content.html>.

<sup>9</sup> Some examples. The University of Florida Levin College of Law is a pioneer in creation of formal student exchange programs, modeled on the success of its faculty exchanges. The college has ABA-approved student exchanges in fall, spring and summer sessions. These give UF students the opportunity to study law abroad, and enrich the academic atmosphere of the College of Law by bringing international students to campus. Current affiliated institutional programs take place at Johann Wolfgang Goethe University, Leiden University, University of Montpellier, Monash University, Warsaw University.

The University's Institute for Food and Agricultural Sciences has a long history of international programs characterized by exchanges and cooperative programs, development projects, professional training, and research on topics of international significance <http://international.ifas.ufl.edu/>.

The Warrington College of Business which hosts a Center for International Economics and Business Studies and a Center for Business Education and Research is now introducing a new Masters of International Financial Management in cooperation with the University of Groningen in the Netherlands and Uppsala University in Sweden.

The UF Paris Research Center's director, Gayle Zachmann, commenting on the newly established center, stated "We are already working on international initiatives with the departments of English, history, and physics, the World Center for the Arts, the Warrington College of Business, and numerous departments in the College of Liberal Arts and Sciences." The Paris Research Center is designed to welcome researchers from all disciplines, including scholars and students in the humanities, fine arts and social sciences, as well as those from areas as diverse as European Union studies, business, architecture, environmental and biomedical research.

The Center for Latin American Studies strongly encourage its graduate students to travel and study in Latin America and/or the Caribbean, and its students typically conduct their thesis research abroad. The Center sponsors Summer Field Research Grant competitions to offset the

expenses incurred with such travel. Both undergraduate and graduate students can enroll in the UF Latin American and Caribbean overseas study programs in Rio de Janeiro, Brazil, and Mérida, Yucatán, Mexico. The Rio program offers summer courses in Brazilian Portuguese and Brazilian culture; the Mérida program offers summer or academic year tracks in Anthropology and Cultural Ecology, both with studies in conversational Spanish. Participants in both programs are housed with local families.

<sup>10</sup> The University of Florida offers more than 290 distance education courses at all levels of learning from high school through professional development, including business administration, fire and emergency services, computer engineering, Latin, audiology and pharmacy.

<sup>11</sup> The Warrington College of Business, for example, offers both undergraduate and graduate programs that are centered on research at the international level.<sup>12</sup> See the following URL for a list of cooperative

agreements between IFAS and international partners:

<http://international.ifas.ufl.edu/pagreements.html>.

<sup>13</sup> See:

<http://international.ifas.ufl.edu/ptechnical.html>, for details on these partnerships that benefit students and faculty at both sides of the agreements.

<sup>14</sup> Eric Hellman, a technologist who has published widely in the field, in a February 9th message to a licensing listserv noted that the needs of the people who read the literature might not be being met: "the pursuit of knowledge would be greatly enhanced if the time spent producing literature was decimated and the time spent reading papers was increased 10-fold." He continued: "The reader of the literature wants 2 things, mostly 1. instant, ubiquitous access to everything, 2. much, much, less of it."

<sup>15</sup> *RLG News* Issue 57, fall 2003, p. 13

## **Discussion**

The moderator summarized the paper and invited questions, comments and other contributions from the audience. The paper was thought provoking, sensitive, and in line with the earlier paper presented the day before.

Beverly Hinds from The University of the West Indies, Barbados asked whether there was the acceptance of institutions that would desire to be in the collaborated effort of Florida State University. Dr. Ingram responded in affirmative and added that collaboration was an ongoing process.

Leshan T. (from Trinidad) asked whether all the sites are free access. Dr. Ingram responded that anything from the University of Florida is free access but he added that journals and some other publications are bar-coded.

Jacqueline Nash (from UWI) asked about the default search engines and how such engines can retrieve information. Dr. Ingram responded that everything is catalogued and that Google and Stanford have an agreement by which Google pays for all stuff from Stanford. The moderator added such default search engines have Boolean operators but is sometimes annoying for irrelevant stuff to show up when that is not what you are searching for.

Ms. Annette Rampusad (from National Bureau of Standards, Trinidad and Tobago) asked about how the practice of collaborating effort, and the issue of Copyright. Dr. Ingram said it is up to the partnering institution and the Copyright laws of the country. The moderator added that all countries have signed on with WTO (World Trade Organization), which accounts for individual copyrights.

Indeed, the session was very thought provoking, interesting informative, and the audience participated fully. The Laventille room was jammed packed as participants wanted to take full advantage of Dr. Ingram's paper.

(Notes by Jerome Agboyi (Bahamas))

# Selecting a Library Management System: The UTech Experience

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*This presentation attempts to share the experiences of the Calvin McKain Library of the University of Technology, Jamaica (formerly the College of Arts, Science and Technology) in selecting a library information management system to meet the needs of its clientele. It indicates the development of the university and the library and outlines the steps taken, the strategies applied, the difficulties encountered and the lessons learnt as we sought to achieve our goal.*

## Introduction

The University of Technology, Jamaica (UTech), dates back to 1958 when as the Jamaica Institute of Technology, the institution started with four programmes and 56 students. The Institute offered post-secondary training in business and management, building, engineering, computing, hospitality, health sciences and technical teacher education. A year later, the name was changed to the College of Arts, Science and Technology (CAST). There was rapid development and expansion and in 1986, the College granted its first undergraduate degree. After years of planning and preparation, the College was awarded university status in September 1995. Since then the institution has undergone an exciting period of transition from collegiate to university status and now offers over 100 programmes at degree, diploma and certificate levels, to a student population of approximately 7,000.

The Calvin McKain Library began at the same time as the Institute and is the core of the support systems for learning and performance. There has been significant growth in the library's collection and services in response to, and in anticipation of development in the college. In the 1980's, the library recognized that the manual systems that were in place were no longer adequate to effectively and efficiently meet the needs of a rapidly expanding institution. The greatest need at the time was to have an up-to-date, online catalogue of materials in the collection but the funds to satisfy this demand were not available. A decision was therefore made to install UNESCO's CDS/ISIS programme through the National Library of Jamaica. The fact that the package was free and installation and maintenance costs were minimal greatly influenced that decision.

The system served the institution well, but as the college developed, the library expanded and the transition to university status began, clients became more sophisticated in their demand for resources and services. It also became obvious that CDS/ISIS could not facilitate the achievement of the University's strategic objective to provide a first class library service for its clients. What was needed was a modern, flexible, fully automated Library Information Management System (LIMS) capable of growing with the institution, facilitating the delivery of superior service to stakeholders and significantly increasing operational efficiency. Such a system had to provide integrated functionality in acquisitions, cataloguing, online public access catalogue, serials control, circulation and media services. Additionally, the system had to be able to interface with the Human Resource Management System, the Integrated Student Administrative System (ISAS) and the Accounting System.

Research has shown that more and more libraries are acquiring Library Information Management Systems as they seek to satisfy the varying and growing needs of their clients and improve their functional capabilities. Whether acquiring a new system or migrating from an old one, the selection process is one of the most challenging decisions with which libraries have been faced. According to Stephen J. Bell (1998), the most difficult task in library automation is the selection of the vendor. He gives three reasons for this:

- *The rapidly changing technology, which makes information gathered yesterday obsolete in satisfying today's needs;*
- *Information needed to make the best possible decision is based on what the vendors choose to disseminate;*

- *The inability of any one product to satisfy the particular needs of a library.*

In addition to these limitations, libraries in developing countries are faced with a fourth challenge, *the high cost of these information management systems.*

#### *The UTech Experience*

This paper attempts to share the experiences gained by the Calvin McKain Library of the University of Technology, Jamaica in selecting an appropriate library management system to meet the needs of an increasingly aware clientele. It outlines the steps taken and strategies applied to enable us to achieve our goal.

The search for a system was launched simultaneously with the drive to persuade administrators of the need to acquire a new one and to identify a source of funding. Initially, the search focused on two systems in an instructional manner, VTLS and Endeavor, to enable us to learn more about them. We were able to observe the operations of VTLS at the University of the West Indies, Mona campus. Endeavor's operations were demonstrated at the UTech Library by a team from the company. We used the opportunity to invite our colleagues from the College Libraries Information Network (COLINET) and the Jamaica Library Service to attend the demonstration.

The support of the University's administration for the acquisition of a modern library system was eventually won by the emphasis placed on the importance of the library being able to attain a standard that would enable it to satisfy accreditation requirements. The need to fulfil the strategic objective that was set by the University was also constantly highlighted.

#### **Establishment of LIMS Steering Committee**

The success with the administrators resulted in the University's Projects Officer being instructed to take on the project and to identify funding. Additionally, the Information Systems Department assumed responsibility for the project and assigned a member as project leader. A Steering Committee, under the leadership of a Director of the Technology and Information Management Division was established to guide the process. This Committee would also ensure transparency, timeliness and adherence to the University's

campus wide representation: academic, library, administrative, and technical.

#### **Request for Proposal (RFP)**

Having courted vendors for over two years, the Librarians had a clear idea of what they were looking for in a Library system. It was only when the IS professionals were brought on board, however, that we realized how much work had to be done as we sought to document our requirements. We also found that even amongst ourselves there were a lot of grey areas to be clarified. After intensive research the LIMS functional team prepared a detailed RFP, which looked not only at the functional requirements, but included detailed questions on database design and structure. The Procurement Office prepared the advertisement for the responses to our RFP, which was carried in the local newspapers as well as on the University's website. Seven companies, local and overseas, expressed an interest in responding to the RFP, but only two bids were submitted. During this period, a special e-mail account was set up to deal with all LIMS queries.

The challenge at hand however, was the evaluation process, which would guide the selection of the system, which was seen as the best fit.

#### **The Evaluation Process**

The evaluation process was very detailed. The first step was to set up a Core Evaluation Team, comprising librarians and Information Systems personnel as well as an Evaluation Team consisting of representatives of the Faculties, I.S., HRM, ISAS, Students Union and librarians from all the library's divisions. The library's role in the whole process was a pivotal one. However the Project Leader did his homework well, was very au fait with the library's needs and was also quite open to consulting whenever the need arose.

The technical evaluation was based on the following criteria:

- *Evaluation of responses to functional requirements*
- *Evaluation of bidder's stability and financial status*
- *Evaluation of bidder's service and customer support*
- *Evaluation of the product's stability and enhancements*
- *Site reference checks*
- *Product demonstrations*

## **Evaluation of Responses to Functional Requirements**

This was a major exercise, which involved detailed examination of the vendors' responses to determine issues to be resolved or clarified. Issues included: security features, total number of customers, a profile of the available resources (systems, people - for example in administration, sales, product and customer support, R&D, training), major projects implemented and any significant relationships. Other areas included application programming interfaces and languages supported, product enhancements (frequency of new versions, whether covered by maintenance agreement or terms of provision and upgrade preparation), site enhancement requests procedure, details of system hardware/software and the various network protocols supported.

## **Evaluation of Bidder's service and customer support**

Aspects examined included implementation support (project methodology, projected time schedules and assistance available), installation support, customer support, frequency of new versions, and procedure for installation). A packaging comparison matrix was used to record the scores for each vendor based on a weighted marking system.

## **Site Reference Checks**

Site Reference checks were conducted to gather information from Libraries utilizing solutions from both vendors. The aim was to ascertain information about the solution's capabilities and limitations during live operations. Four Libraries using the respective solutions were contacted and agreed to facilitate us via teleconferencing. This was done over a four-day period.

Emphasis was placed on the following areas:

- Operating systems and database management systems used by the respective libraries.
- System Performance
- Data conversion
- Customisation
- Documentation
- Implementation and Training
- Overall Customer support.

The sessions provided an invaluable source of information, as the Libraries were candid about their experiences with the respective solutions. They offered suggestions and pointed out some of the possible pitfalls, which we should seek to avoid. The problem of data conversion services being outsourced to a third party was discussed at length, with consensus being that this should be avoided if possible. Support services provided by the vendors after implementation was also a source of concern for our IS professionals.

Following this, both bidders were invited to present a two-day demonstration of their products on campus. Again, we invited our colleagues to participate. After that, the bidder's responses and scores for both vendors were reviewed, based on the demonstrations and the site reference checks.

## **Product Demonstrations**

Challenges arose as we discovered during the demonstrations, that although we were using the same terminologies, they had entirely different meanings, depending on whether you were a Librarian, a Vendor, or a User. For many of us as Librarians, information is held as tacit knowledge and is neither shared nor documented. It is oftentimes limited to our own internal operations. Comprehensiveness, accuracy and understandability of the terminologies used were critical.

The demonstrations were based on Demo Scripts, which had been prepared ahead of time and circulated to the vendors. This was done, as it was not possible to view and assess the entire system due to time constraints. The script highlighted the key areas, which we wanted to see, as well as the expected outcomes. Each functional area was assigned a rank of *Important*, *Highly Desirable* and *Desirable* and accorded a score. Scores were assigned based on four categories - *Available*, *Partly Available*, *Available with customisation* and *Not Available*.

The Functional team drew heavily on the staff of the University's Information Systems Department in the evaluation of the database architecture and network infrastructure.

## **Financial Evaluation**

The second step in the process was to conduct the financial evaluation. The proposals were evaluated to determine the total cost of

ownership to the University. Costs were taken to include application, hardware and implementation. Scoring was based on stipulations in the RFP. In doing the evaluation, the following assumptions were made:

- A 14% discount rate was used for the Net Present Value
- Vendor customisation would not be necessary in the short term
- A per diem rate was established for meals and local travel for vendors
- A per diem rate all-inclusive except for air fare was established for Utech staff
- Rates at a local hotel were identified for accommodation
- Midseason airfares were used

Based on the above, a cost comparison matrix was done to indicate the scores of both vendors. The next step was to revise the package comparison matrix to include the cost. Both vendors scored highly with a mere .33 percentage difference in the overall scores.

### **Fit - Gap Analysis**

Upon completion of the evaluation, it was expected that the highest ranked bidder would be invited to participate in the third phase, a Fit Gap Analysis. The Fit Gap sought to assess the level of fit between what the vendor was supplying as opposed to the Library's needs. Emphasis was placed on the Gaps, and whether these were critical or could be worked around.

The findings of the Technical Evaluation Team were presented to the Steering Committee which, based on the closeness of the results, took the decision to invite both vendors to participate in the Fit Gap Review exercise.

The aims of this exercise were to:

- Analyse the areas where the bidders' proposed software solutions did not fully meet the requirements specified in the RFP.
- Review any other solutions that were not proposed as part of the UTech LIMS Solution but could add value to the institution.
- Review and agree on the hardware, database and platform software

infrastructure to ensure that the required level of processing, performance and efficiency were met.

- Review plans for the training of UTech's system implementation designers, IT technical support personnel, users and or trainers.
- Examine the approach to be taken for data conversion.
- Assess plans for development of interfaces with other university systems.
- Review the terms and conditions of the contract.

One vendor visited on site to facilitate the fit-gap review sessions. This resulted in a slight adjustment in cost, which was overlooked when the financial evaluation was done. Concerns regarding withholding tax were also addressed. The other vendor was not able to facilitate an on site visit for the review so it was done via webex for voice over IP and the Internet for demonstrations.

The contracts were not reviewed as a part of the fit-gap process, as scheduled.

The results of the Fit-Gap Analysis were used to finalize the evaluation scores. These results were presented to the Steering Committee, which submitted a recommendation to the University's Procurement Committee regarding the preferred vendor for the library system. The Committee approved the proposals and forwarded them to the University Council. Approval was granted and the proposals were sent to the National Contracts Committee which also gave its blessing.

### **Lessons Learnt**

The first lesson learnt is that *dedicated staff* must be in place. Some momentum was lost when the Project leader was assigned to another project, which did not allow him to lend the level of support needed. Subsequent to that two other persons were identified, one of whom later resigned from the University.

Lesson number two is that *stability of your staff* is critical. During the evaluation process they would have become intimately involved in the project, gathering knowledge and expertise that are not always easy to pass on, especially when there are time constraints.

Thirdly, *technical expertise* is critical. This can be achieved by forging a partnership between

the Librarians and the Information Systems professionals, whose input is indispensable to the selection and implementation of any system. Our experience has taught us that without the IT professionals the selection process would have been severely challenging for us. They assisted not only with the specifications of the server and database requirements but they helped to resolve some issues or grey areas that existed.

Fourthly, *all activities in the Selection Process must be completed before signing off on the system.* One of the weaknesses of our selection process was that the review of the contract was not undertaken as a part of the Fit Gap Analysis as was scheduled. Had this been done, the contract would have been signed when approval was received from the National Contracts Committee. This has been a major set back for the project as it has taken months for the lawyers involved to agree on the terms and conditions of the contract. Had the lawyers been a part of the review, the matter could have been settled in a much shorter time. Some of the difficulties encountered were as follows:

- The lawyers were not necessarily conversant with library terms.
- There were some differences in the contract based on legal practices in the respective countries.
- There were differences in both parties' internal operating procedures. For example, our Procurement Department requires the submission of a pro forma invoice before payment can be effected. The proposed contract, on the other hand, requires a fifty percent payment on signing. Monthly invoicing of the project, as sought by UTech, was not an option for the vendor.

In addition, clarification of one point or another had to be constantly sought. These issues could have been more efficiently managed in

## References

1. Bell, Steven J and Cynthia Cronin-Kardon. "Making the library management systems acquisition: achieving resolution of a tough decision." College & Research Libraries 59.4 (1998) 348-61.

face-to-face discussions, thus avoiding the delay in the process.

The fifth lesson is *never relinquish ownership of the Project.* Maintaining ownership of the project can be extremely challenging, especially when other departments within the University must be brought into the picture. Our Procurement Department has responsibility for liaising with the University's lawyers as well as the vendor's lawyers and, naturally, handles contracts for the institution. Because of this, for a long period the department was effectively in control of the project. This was quite frustrating as communication was very poor. It therefore took a lot of effort to 'reactivate' the project.

Finally, *momentum must be maintained.* Momentum, once broken can be very hard to recapture. The unsolicited lull in the project has resulted in a shift in staff focus. The level of synergy and energy, which previously existed among the core, functional team has been significantly reduced.

## Conclusion

After nearly six months of virtual inactivity, the project is again coming alive. The process has been lengthy but, despite the error made by not including the assessment of the contract in the evaluation exercise, it is sound. We are convinced that the product chosen is the best fit for our library at this time.

The mobilization phase has now begun. Some of the hardware have been purchased, an IS professional is being recruited for the library, the University has contracted a consultant to drive the process and he will shortly be meeting with the library's Project Manager to finalize the activities schedule and assign work teams.

Finally, the contract should be signed within a few days and everything can get moving. It is anticipated that we will be able to go live within nine to twelve months of implementation.

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# Digital information in the National Library of Aruba

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*An analysis is made of the way the National Library of Aruba took advantage of the developments in computerization and ICT that affected the library world in the last ten years. The paper starts with a brief description of the social and cultural characteristics of the Aruban island society as well as the position of the library in the Aruban community. As a result of historical developments Aruba became a multicultural and multilingual society in which Dutch, Papiamentu, Spanish and English are the four languages most spoken. The National library of Aruba is a focal point in this society. Since 1986 when Aruba became a self-governing part of the Dutch Kingdom, the library combines the functions of the National library and of the Public library. The process of library automation the library went through at the end of the 1990's is analyzed as well as the first years of providing dial-up Internet access to the public and experiments with Internet user education. In the remaining part of the paper the preparation and implementation of the new computer center (CID) is described. The results of a user survey among the clients of the CID are presented and analyzed. The need to focus more on girls between the ages of 11 - 15 and senior citizens are two of the conclusions from this survey. Finally some observations are made on the way ahead for the Aruban Library in her role as a supplier of and an access provider to digital information.*

## **Social and cultural characteristics of the Aruban society**

In order to understand the position of the National Library of Aruba some basic knowledge on Aruba and its population is indispensable. Aruba was formerly a part of the Netherlands Antilles but in 1986 became a separate self-governing part of the Kingdom of the Netherlands. Because Aruba is still a part of the Kingdom of the Netherlands the official language on the island is Dutch. However Papiamentu, a Creole language that evolved mainly from Portuguese, Spanish and Dutch is the common language. Because of the closeness of Aruba to the Latin American mainland and also because of the extensive immigration of workers from Colombia and Venezuela Spanish is also widely spoken. The fourth important language on the island is English that is spoken by black immigrants from the British West Indies and their descendants who from the 1930's came to Aruba to work in the oil refinery. Most of Aruba's population is racially mixed. There are also significant numbers of immigrants from Suriname. The Netherlands, China, India, The Dominican Republic and Haiti. So it follows that Aruba is a very multicultural society in which the four main languages spoken are Papiamentu, Dutch, Spanish and English.

## **The position of the library in the Aruban society**

The National Library of Aruba formerly named Public library of Aruba will celebrate its 55<sup>th</sup>

birthday this year. Since 1986 when Aruba became a self-governing part of the Dutch Kingdom, the library combines the functions of the National library and of the Public library. In its role as National library the library tries to preserve the written cultural heritage of the island. In her role as a public library the library supports formal and non-formal education.

In the past decades the library has become a focal point for many different groups in the Aruban society. The statement of the International Federation of Library Associations and Institutions (IFLA) in their World Summit on the Information Society (WSIS) Draft Declaration that "studies have shown that the public library is one of the very few institutions in a local community that is open to all, regardless of income, employment, status, education ethnic origin, gender and ability"<sup>1</sup> is certainly valid for the National library of Aruba. It is one of the few institutions on the island frequented by Arubans of all ages and of every language-group.

The library also has a function as a cultural center in the Aruban society. It organizes many cultural activities among which are expositions of local artists, book presentations and poetry evenings.

The IFLA/UNESCO public library manifesto states twelve missions of the public library: Two of these missions are: "Promoting awareness of cultural heritage" and "Fostering

inter-cultural dialogue and favoring cultural diversity.”<sup>2</sup>

These two principles have in practice always been guidelines in the activities of the National Library of Aruba.

During the last two decades the growing importance of computers and digital information provided our library with new challenges and opportunities.

### **Library automation**

Since 1987 the library-staff felt the need for automation of some key library processes. The Aruban librarians wanted to automate both cataloguing and the lending administration of their library, and furthermore provide the population with social and cultural information in a digital form. After consulting with experts from different countries the library software package Dynix, a product of Ameritech, was chosen to automate the Cultural and Social Databank, the catalogue and the lending administration. The objective of the Cultural and Social Databank was to develop a structured, user-friendly collection of information in the area of Aruban culture and the social sectors of the country. In May 1996 this project was finalized. From 1996 to 1997 the catalogue and the lending administration were also automated

The Public Library of Utrecht in the Netherlands that was also using the Dynix software package, agreed to organize a Dynix training program for six librarians of the Library of Aruba.

Organizational challenges met during the process of library automation

The main organizational problem encountered during the process of automation had to do with the fact that the National Library of Aruba is a government service. There were a lot of bureaucratic procedures to be followed that slowed down the process. Another delaying factor were personnel changes in the automation project group.

Furthermore, the process of data entry into the new system took more time than expected. It proved to be difficult for the librarians to enter the required amount of titles in the system in the limited time available. Apart from these delays however, the automation process went quite smoothly, and with minimal inconvenience to the public.

This complicated computerization process was carried out without a hitch and with very few

problems so the everyday activities of BNA could proceed normally.<sup>3</sup>

The main issue that still impedes the further development of library automation in the library of Aruba is bureaucratic procedures. Like many government payments to creditors, the yearly payments of the maintenance contract with Ameritech/Dynix often gets delayed. As a result of this Ameritech cannot provide the library with the required technical assistance. Another difficulty is the lack of system librarians and system operators among the library staff. Because of the departure of several staff members there is now only one system librarian left who has to take care of the technical operation of the whole system. Inevitably, this means that the solving of technical defects often takes far too much time. Our medium-term view is, that upgrading or even converting the system to the more advanced “Horizon” system is necessary to maintain the quality of the service.

### **Dial-up Internet-computers**

In 1997 a long-time goal of the library staff was achieved. The local telecommunications agency SETAR provided the library with five computers with dial-up Internet connection. These computers were set up for use by the general public. They were placed in front of the reference desk. Unfortunately the library was not able to provide this Internet service tot the public free of charge. A certain amount of money had to be paid to SETAR for the connection and the costs of the telephone line. But we were able to keep the service affordable for most clients. The price was about \$ 3.50 for an hour, which was roughly a third of the price the Internet cafes were charging at that time.

In the first year there were only three or four clients a day who made use of the service. But from 1999 the number of Internet-users grew rapidly. In the years 2000 and 2001 there were about 500 Internet-users a month. The user-group of the Internet service has always been very diverse. There were a lot of schoolchildren and students but also tourists, Spanish speaking workers from Latin America and students from the Netherlands.

The service began to put a big strain on the reference desk. The reference librarians on duty had to collect the user fees, set a timer to keep track of the time and connect the computer to the Internet. Unfortunately there were no resources and also insufficient technical expertise to purchase and install “Internet-café” type software which would have

made the operating of the service more efficient.

### **User education for Internet-users**

Library staff must act as information navigators to help users of all ages to make the most effective use of information and communications technology.... As the new technologies become more commonly available, the role of the public library both in providing access to these technologies and in helping people how to make best use of them is of vital importance. <sup>4</sup>

Because more and more users required assistance in using the Internet the library staff set up a simple system for user-education. Individuals could make appointments with one of our librarians for training sessions. This training was free of charge. A big part of the clients who asked for this kind of assistance were people who never had touched a computer before. Most of them overcame their fear of computers and became regular users or the Internet service. So you could say that the Aruban librarians were doing pioneering work in providing Internet access and fighting computer illiteracy in the Aruban society.

### **The Digital Information Center (CID)**

During the years 2001-2002 the number of clients who wanted to make use of our Internet service kept growing and growing. It became clear that the five rather slow Internet-computers were insufficient to fulfill the need for Internet access for all of our clients.

Another issue was that the Aruban education system entered a process of restructuring. Students were required to study more independently so they had to make more use of the library and especially the Internet to retrieve information. Most Aruban schools did not have the resources to provide sufficient computers for their students.

The government wanted the library to be part of the solution to this problem. Finally it was decided that in both branches of the library computer rooms would be established. The computer rooms would be equipped with twenty computers each, computers that were previously used in a computer project of the government that was now terminated.

Another new development was that the local telecommunications agency SETAR decided to choose the library as a site for one of their ADSL (broadband-Internet-access) pilot projects. So now suddenly the library had 40 computers with fast broadband Internet-access at its disposal.

The main goals of the computer center would be:

1. To support the transformation of the Aruban educational system
2. Promoting the use of ICT and Internet by all inhabitants of Aruba
3. Combating computer illiteracy on Aruba

### **Challenges for the introduction of the new Computer Center**

The workgroup that prepared the introduction of the new computer-rooms came to the conclusion that many basic requirements were not met. First of all the rooms that had to be converted into computer rooms did not meet the necessary technical specifications. The biggest issue was the temperature of the rooms, which was far too high. The temperature was between 25° and 28° C but should be around 20° for optimal performance of the computers. There were no resources to provide the computer rooms with separate air conditioning units.

Another challenge was the shortage of qualified librarians to man the helpdesk of the new computer center. This challenge was met by selecting a few employees who were not necessarily qualified librarians but who were really client-oriented, to work in the new computer center. Some of them did not have a lot of experience in working with computers. This problem was met by a special training course on Windows and basic Internet-searching organized by one of the librarians. The workgroup knew that the technical maintenance of the computer network would be difficult because we were still dependent on only one system librarian. Formally, a specialized division of the government is charged with the technical maintenance of the computers but this service cannot provide the necessary day-to-day assistance. Hopefully this problem would be solved in the near future by attracting a new system administrator. Having made this analysis and being able to solve only part of these organizational and technical problems the staff decided to go ahead with the project and open the computer centres anyway. The main motive behind this decision was the high demand for Internet access among our clients.

### **Free Internet access versus user fees**

IFLA's Internet Manifesto states that: "Freedom of access to information regardless of medium and frontiers is a central responsibility of the library and information profession. The provision of unhindered access to the

Internet by libraries supports communities and individuals to attain freedom, prosperity and development <sup>5</sup>

The National library of Aruba wanted very much to provide unrestricted access to the Internet for the entire Aruban population. We had noticed in the past that the fee for Internet use of 6 florins (\$3.50) an hour was a threshold for some clients, especially schoolchildren, to use the Internet. Another problem was that because of limited resources there were many gaps in our book collection. To find information on a lot of subjects the Internet was the only information source available for the students. Fortunately SETAR decided to provide the library with the ADSL connection free of charge. The only issue the workgroup still had to deal with was the use of Internet for e-mail, chat, games and other leisure activities. The staff did not want to provide this recreational use of the Internet free of charge to the clients. On the other hand there were no technical means available to block the websites used for these activities.

A report on the use of Internet in public libraries in the Netherlands was studied.

According to this report most libraries in the Netherlands make a distinction between computers on which only selected educational websites can be visited, the information pc's and Internet pc's on which free surfing on the Internet including chat and e-mail is allowed. <sup>6</sup> The use of the information pc's is free of charge but for the other Internet-computers a user fee has to be paid.

The Aruban library decided to follow the example of the Dutch libraries. In the new computer centers 15 computers were selected

on which only searching for information on the Internet was allowed. The use of this information-pc would be free of charge for library members. On this computers clients can also use Word, Excel and other Microsoft Office programs free of charge. On the other computers free surfing including e-mail, chat and games are allowed. For this last group of computers users have to pay 4 florins (about \$ 2.25) an hour. This arrangement proved to work very well in practice.

### Users of the new Computer Center (CID)

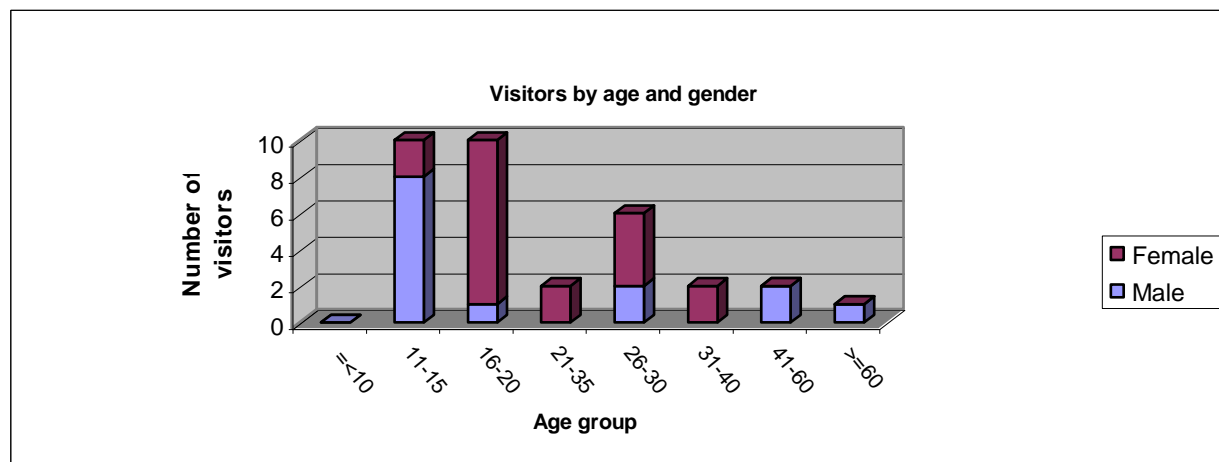
The new computer room was baptized CID (Centro di Informacion Digital, Digital Information Center) and was opened in August 2003. The new CID proved to be a success in terms of amounts of users. The number of visitors varies between 900 and 1100 persons a month.

### Results of the user survey

In April the CID set up a small user survey, a sample of 33 users of the CID. The staff wanted to know whom the users of the center were in terms of age, gender and education and also for which purpose they used the computers. Furthermore they wanted to find out what the users thought about the quality of the computers and the service provided by the help-desk workers. Another important question was what they thought of the level of assistance of the help-desk crew and whether or not users needed more assistance in working with the different computer programs. Age and gender

Figure 1 shows the age and gender of the clients that were questioned. It became clear that about equal numbers of men and women use the computer center.

**Figure 1**

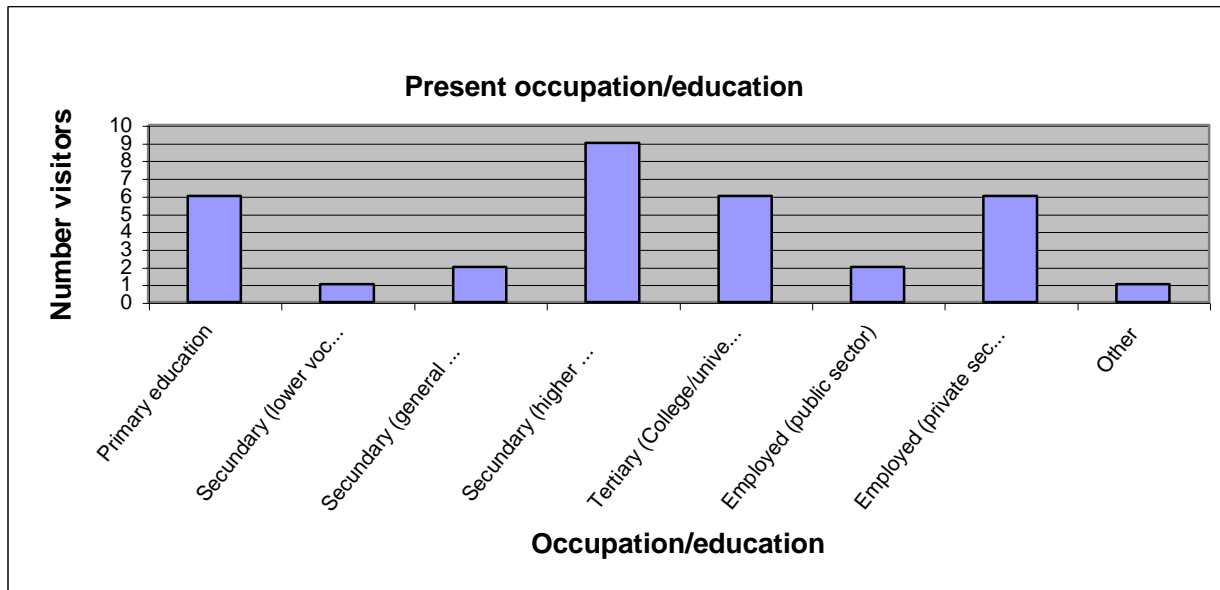


However, it turns out that among the younger users in the ages between 11 and 15 the boys are over-represented. Indeed the staff does not often see young girls who are still in primary school using the computers in the CID. In the age group of 16-20 women are over represented. This probably has to do with fact that there are far more women than men who attend the higher levels of secondary education as well as the institutions for higher education, in Aruba

## Education

The clients were also asked which type of school they were attending or what their occupation was. Figure 2 shows what was expected that is to say that students attending a higher level of secondary education were over represented in the user-group of the computer-center. A user-group that was not especially targeted by the library but that does seem to be of significance is the employees of private sector companies.

**Figure 2**

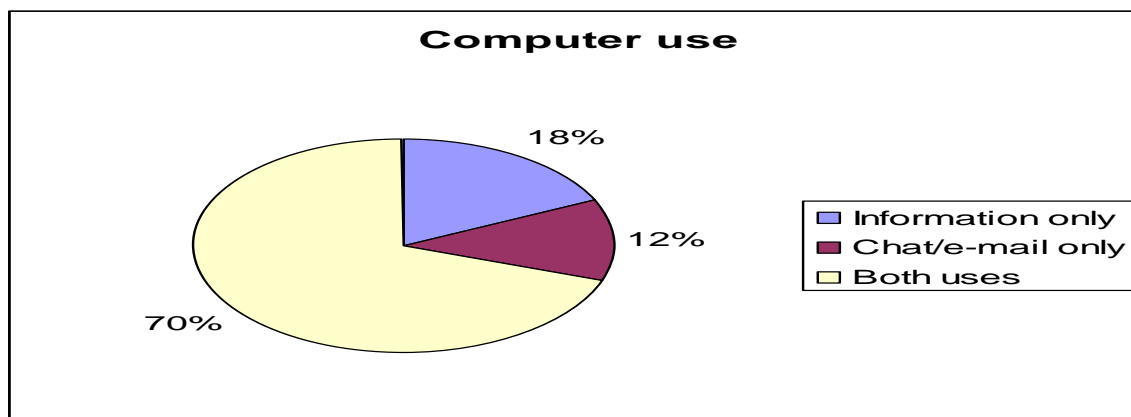


## Purpose for which the computers are used

In the first years of the library's Internet service a lot of clients used the computers only to send e-mail and take part in chat sessions. The staff of the CID was curious whether this would change with the introduction of the free information computers. Figure 3 shows that

the information computers are indeed used by almost every client of the center. Members of the help desk personnel are under the impression that especially the students following secondary education have become more competent in using the web for information searches in the last two years.

**Figure 3**



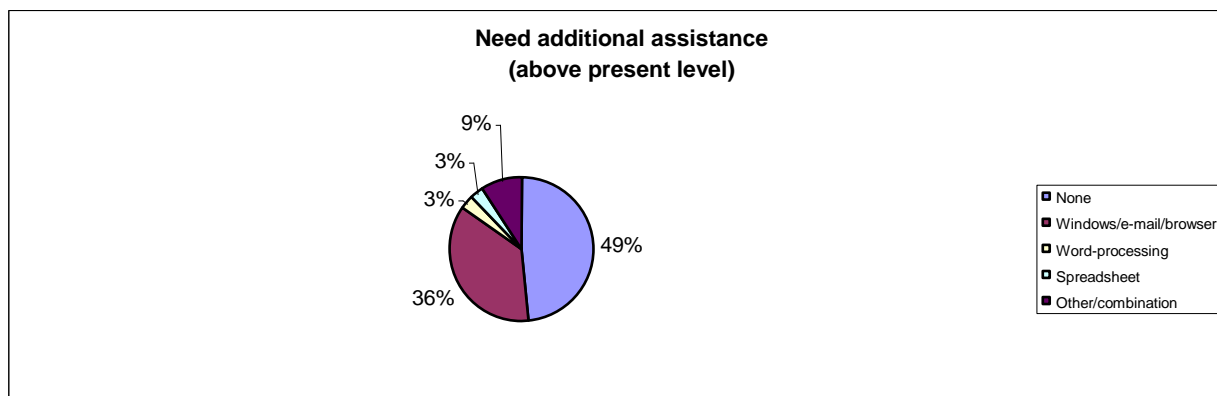
## Assistance and training

CID helpdesk personnel do give some personal assistance to computer users upon request. A lot of students are looking for basic information on subjects like countries of the world, animals or plants. They need this information for their school assignments. The majority of students in secondary education, the teenagers, are looking for summaries and book reports of Dutch, English and Spanish works of literature. Popular subjects among these teenagers are also drugs, alcoholism, homosexuality, abortion and teenage pregnancy. Most of the Internet users need assistance in using search engines like Google. For a lot of the children, formulating the correct search terms is very difficult. The

information they are looking for is mainly in Dutch, the official school language, while the language they speak at home is often a different one. Finally there are many computer users who need assistance in performing basic Windows and browser actions like downloading, printing and saving files on diskettes. Usually the helpdesk clerk on duty cannot assist a client for more than a few minutes because the center is short staffed, especially during the peak hours in the afternoon. However, the users were asked whether they required more assistance in the use of certain computer programs.

Figure 4 shows that roughly half of them would like to get more help than is currently available, especially in using the Internet browser and basic Windows actions.

**Figure 4**



## Quality of the service

The users were questioned on the quality of the service of the CID. The results are shown in figure 5 and they are what the staff hoped for. Almost all the users that filled in the questionnaire were satisfied with the level of service. The fact that some users regard the

quality of the computers average or poor is related to the fact that the computer network in the CID is based on the presently outdated Windows NT platform, and to the technical limitations of the server. Windows NT has become quite obsolete which causes many conflicts with present-day WebPages. Of course this is sometimes frustrating for our clients.



**Figure 5**

## Conclusions from the user survey

The conclusions that can be drawn from this user survey is that the CID should try to fill in the gaps in the user population;

- More focus on girls in the age group of 11-15. For example by organizing special training programs for this group, possibly involving their schools. It is important that these girls do not fall behind the boys in their age group who seem to have less fear of computers.
- The staff would also like to see more adults in the age group of 31 and up, and people over 45 in the computer center. The librarians know from experience that they are the ones in our society who suffer most from computer illiteracy. The quality of the service is satisfactory but we should organize special training sessions for certain programs such as Internet Explorer.
- Finally the library has to find a way to upgrade the network to a newer version of Windows.

## The way ahead

The National Library of Aruba as a supplier of and access provider to digital information has made a lot of progress in the last decade. Important developments were the automation of the social and cultural databank, the card catalogue and the lending administration at the end of the nineties. The introduction of dial-up

Internet-access in 1997 and finally the opening of the Centro di Informacion Digital (Digital Information Center) in 2003 have been important steps to help bridge the digital divide in our island society. As a supplier of digital information we should endeavor to place our Social and Cultural Databank and our library catalogue on the Internet. Furthermore an effort should be made to make available important historical and cultural information on Aruba on the World Wide Web. The most important task in the area of access providing should be the organizing of training sessions for Aruban citizens who until now do not have sufficient access to the increasingly global information society. In the coming year the CID will target the local schools by presenting them educational programs for their students. Hopefully the library will be able to mobilize sufficient support in the Aruban society in order to make digital information an even greater priority for current and future governments. More resources have to be made available in order to make it possible for our library to carry out its mission of bridging the digital divide.

“Public libraries are instruments of equal opportunity and must provide a safety net against alienation and social exclusion from technological advance by becoming the electronic doorway to information in the digital age”<sup>7</sup>

## Endnotes

<sup>1</sup> The public library service IFLA, p. 40

<sup>2</sup> *WSIS Draft declaration of principles and draft action plan.* (pt. 7) IFLA, May 2003  
<http://www.ifla.org/III/wsis2605.html>

<sup>3</sup> *The public library service: IFLA-UNESCO guidelines for development* [International Federation of Library Associations and Institutions Prepared by a working group chaired by Philil Gill on behalf of the Section of Public Libraries München: Saur, 2001 (IFLA publications; 97) (p. 88) ISBN 3-598-21827-3

<sup>4</sup> *Nos Biblioteca ta di oro: fifty years of library activities in Aruba, from lending service to centre of information* / Wim Rutgers Oranjestad: Biblioteca Nacional Aruba, 2002. p. 97

<sup>5</sup> *The public library service* IFLA, p. 37

<sup>6</sup> *IFLA Internet Manifesto* IFLA, 2002  
<http://www.ifla.org/III/misc/im-e.htm> (p.1)

<sup>7</sup> *Eindrapportage regulering Internetgebruik: In opdracht van Vereniging NBLC Projectgroep Internetregulering, Stichting Laurens* Den Haag: Stichting Laurens, 2003 (p. 5)



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# Electronic Librarianship and its Ethical Challenges

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*The advent of “electronic librarianship” and electronic information resources has created new professional and technical challenges for information professionals. These, in turn, have resulted in a re-emphasis on ethical concerns and practice in the information community. This concern is manifested in a number of areas, these include:*

- *Literacy and information literacy, the domestic and international digital divides*
- *Intellectual property, access, licensing, distribution, and redistribution rights*
- *Privacy*
- *Collection development, censorship, and community values*
- *Cultural integrity and stewardship*
- *Technical and professional qualifications and competencies*

*Earlier studies suggest (Dole et al 2000, Koehler et al 2000) that librarians, wherever they may be found, tend to share a similar value set. Indeed, it may be that information professionals tend to hold similar generalized ethical principles as reflected in the codes of ethics of their professional organizations (Koehler and Pemberton 2000, Koehler 2003).*

*Electronic librarianship and the ubiquitous nature of online resources have created new points of ethical concern. How can librarians respond to these concerns? Koehler and Pemberton (2000) suggest that there are three basic sources for discovery of ethical principles: (1) actual practice as expressed by librarians, (2) the codes of ethics of professional organizations, and (3) the writings of experts. This paper explores each of those three domains to document changes in ethical thinking over time and to establish emerging new ethical norms as they relate to the electronic environment. Finally, Caribbean specific recommendations are offered.*

## Introduction

The advent of “electronic librarianship” and electronic information resources has created new professional, technical, and ethical challenges for information professionals. The proposed paper addresses the ethical challenges that grow out of the new professional and technical realities that librarians must now address. In that context, the paper has particular relevance for three of the four thematic conference areas, viz:

- Electronic Information Resources in the Caribbean: Trends and Issues/ challenges and opportunities
- Collection Management issues related to electronic information resources
- Professional Development/Networking in an electronic environment

Earlier studies suggest (Dole et al 2000, Koehler et al 2000) that librarians, wherever they may be found, tend to share a similar value set. Indeed, it may be that information professionals tend to hold similar generalized ethical principles as reflected in the codes of ethics of their professional organizations (Koehler and Pemberton 2000, Koehler 2003).

Electronic librarianship and the ubiquitous nature of online resources have created new points of ethical concern. How can librarians respond to these concerns? Koehler and Pemberton (2000) suggest that there are three basic sources for discovery of ethical principles: (1) actual practice as expressed by librarians, (2) the codes of ethics of professional organizations, and (3) the writings of experts. This paper explores each of those three domains to document changes in ethical thinking over time and to establish emerging new ethical norms as they relate to the electronic environment.

## Information and Its Definitions

According to A.M. Schrader (1986), there are at least one hundred definitions of *information* in the information field. Information, according to Lester and Koehler (2003, ch. 2) is central to communications theory, information science including library science, and information theory. It is construed as commodity, process, transmission, content, event, relationship, and concept. Not only must we wrestle with the ethics and values of the information professions; we must acknowledge issues of definition in the information and library sciences. For each definition of information

and information and library science do we need different sets of ethics and values? Or does a single set cover all? Rafael Capurro (1992) has raised for us some very challenging questions at the nexus of the information professions and ethics. For example, he argues:

The question 'what is information?' asks for substantial characteristics of something. But information, taken as a dimension of human existence, is nothing substantial. Instead of asking: 'what is information?' we can ask: 'what is information (science) for?' ... The aim of information science is to thematize this contextual dimension taking into consideration primarily all technical forms of communication as parts of other forms of life.

Taking into consideration the unity of both [sic] aspects, the methodological and the pragmatic, information heuristics and information hermeneutics, information science can be considered a sub-discipline of rhetoric.

As Capurro points out, the intersection of Aristotlean rhetoric, politics, and ethics underpin the information professions. Capurro argues further that:

The question 'what is information for?' leads to the question 'what is information science for?' since information science, conceived as a hermeneutic-rhetorical discipline, studies the con-textual pragmatism dimensions within which knowledge is shared positively as information and negatively as misinformation particularly through technical forms of communication. These are not just an instrument but also a "way of being". This conception of information science is important if we want information systems to become part of the background of various forms of living.

Our value systems and ethical practices become a part of that "...the background of various forms of living." We must also understand the well-known dictum that "where you stand depends on where you sit." Values and ethics may be colored by one's perceptions of information and the professions. I have argued (Koehler 2003) that if sufficiently abstracted, the ethical precepts of the various information professions wherever they may be found have in their essential characteristics a marked similarity.

## The Literature and Ethics Identified

Many expert commentators have identified some or all of the following values as core professional values (see e.g. Intner and Schemment 1987, Stichler and Hauptman 1988, Hauptman 1991, Rubin 1991, Asheim 1992, Baker 1992, Devlin and Miller 1995, Johnson 1994, Ford 1998, Hisle 1998, and Symons and Stoffle 1998):

- Intellectual freedom
- Protecting library users' right to privacy/confidentiality
- Intellectual property rights
- Professional neutrality
- Preservation of the cultural record
- Equity of access

The identification of core values within the profession has been addressed. Michael Gorman (2000) offers eight: (1) stewardship, (2) service, (3) intellectual freedom, (4) rationalism, (5) literacy and learning, (6) equity of access to recorded knowledge and information, (7) privacy, and (8) democracy. Koehler and Pemberton (2000) suggest the following (1) Patron or Client Needs, (2) Skill and Competence and the Roles of the Information Practitioner, (3) Support the Profession, (4) Responsiveness to Social Responsibilities, and (5) The Rights of Users, Fellow-Professionals, the Profession, and Society. They found that while there are many different and very specific provisions published by each of the organizations, they could essentially be reduced to six general categories. Richard Rubin and Thomas Froehlich (1996) offer nine values and ethical principles: (1) privacy, (2) selection and censorship, (3) reference, (4) intellectual property rights, (5) administration, (6) access, (7) technology, (8) loyalties, and (9) social issues. Thomas Froehlich (2000) lists six professional values and five ethical principles. The six professional values he lists are: (1) freedom and self-determination, (2) protection from injury, (3) equality of opportunity, (4) respect for patron privacy, (5) minimal well-being, and (6) recognition for one's work. The five ethical principles are: (1) "respect for the autonomy of the self and others," (2) "seek justice or fairness," (3) "be faithful to organizational, professional and public trust," (4) "seek social harmony," and (5) act in such a way that the amount of harm is minimized."

On close examination of the lists provided by Gorman, Koehler and Pemberton, Rubin and Froehlich, and Froehlich, one finds significant parallel meaning and conclusion. The list of

core values and ethical principles is fairly robust, yet there is agreement across commentators as to what these values and principles are.

### **Librarians and Values**

In two surveys of librarians worldwide, Dole *et al* (2000) and Koehler *et al* (2000) conclude that on the whole librarians share a very similar set of ethics and values. Almost all identify service to the patron or client as their foremost value. Equality of access, intellectual freedom, preservation of the cultural record, literacy, and technical literacy are all rated as key values, although ranked somewhat differently by librarians in different parts of the world, with different training, or different responsibilities.

It is argued that the book, literacy (Tocqueville 1836), and the public library are interrelated and important (Suaiden 2000) in the democratization process. If indeed this is true, librarians and their constituencies must promote and protect libraries in both large and small polities. That said it might sometimes be difficult to support libraries and intellectual freedom with full vigor. As Batambuze and Kawooya (2002) point in the Ugandan context, librarians were threatened with death during the Idi Amin era if they sought to stand too strongly on principle.

### **Electronic Resources and Sources of Strain**

One can argue either that the introduction of electronic resources into the milieu represents a significant paradigm change or, alternatively, that it is simply part of a natural progression in the complexity of the creation, delivery, and consumption of information.

I believe that the digital era brings with it a sense of immediacy and of intimacy. Consider, for example, the erotic literature industry. Erotic literature and its sub-class pornography have been with us since humankind began painting on cave walls. The printing press – the information technology that revolutionized the fifteenth century – increased the availability and portability of erotica. The World Wide Web has further increased the availability of that material. What is socially acceptable as erotica but not pornography changes from time to time and place-to-place? Federal district attorneys have engaged in venue shopping in the United States to prosecute pornography peddlers in jurisdictions where local community values are more in line with the desired outcome of the prosecution than are others. Most recently, the United States (US) Attorney General John Ashcroft ordered the bare breasts on statues to

be covered at the Justice Department headquarters in Washington, DC. Similarly, there have always existed communities of interests throughout the world. Some shared an interest in the benign --say the Celtic fiddle while others promoted less socially positive or neutral goals. The Internet provides a forum that brings the communities together easily electronically. Of course, to paraphrase Justice Stewart Potter of the US Supreme Court “I may not be able to define [them], I know [bad things] when I see [them].”

Because the Internet eases access to all kinds of materials – the good, the bad, and the indifferent – information professionals must consider if and how this new environment affects their practice and their ethics. Librarians have long held that among their responsibilities is to determine authoritative against less authoritative resources and to so advise their patrons. In many societies, it has not been a traditional librarian role to consider other qualitative dimensions of the information they manage. Has the Internet changed that?

A second source of strain concerns the digital divide. The digital divide is usually defined in two ways. The first is between communities of technically adept with access and the not so technically adept lacking access to the Internet within developed countries. The second is concerned with the macro-effects of technically proficient and technically deficient countries, usually along the North-South divide.

In reality, the divide between countries is more pernicious. The divide is not only about access to the Internet or high-speed connectivity it is also about literacy. In the “North,” populations are for the most literate. In the “South” more than half the populations may be illiterate as well as lacking basic technical skills. One well-known statistic quoted widely for Sub-Saharan Africa is that in many countries less than 20 percent of the population has ever made a telephone call. The cell phone is, however, making inroads on that statistic. In our surveys of librarians (Dole *et al* 2000, Koehler *et al* 2000), we find that librarians of the “South,” as we expected, are more concerned with *literacy* than with *technical literacy*, than are their siblings of the “North.”

We may ask ourselves very specific questions on the interface between technology and ethics. For example, in the United States and elsewhere, librarians have been faced with the issued of Internet filtering. Does Internet differ in some fundamental way from other forms of censorship? In the United States federal funding to libraries has been made conditional

upon filtering. Some library systems have accepted in filtering in one form or another, but others have rejected it. By rejecting filtering, those systems have also declined to accepted substantial monies. Libraries around the world have had to deal with censorship in one form or another since there were libraries.

Is the library the appropriate venue for public Internet access and use? Most librarians accept it as a given. Often the Internet is seen as a means to attract patrons. The more patrons a library attracts, the more likely it will continue to be supported by whatever body, private or public, that it answers to. Is it too late to reconsider the question? I, for one, believe that one of the key services libraries bring to information is collection development. Libraries collect according to the needs and wants of their patrons. It comes as no surprise that a medical library's collection is different than a legal library's and is different than a public library's and is different from an academic library's collection. Can librarians not therefore exercise some of their collection development responsibilities over the Internet? The technology exists to allow librarians (or their surrogates) to identify and mark Internet material appropriate for general or specific collections. These materials could be and in many libraries are included in the catalog. From a theoretical or ethical perspective, the librarian does not then abdicate collection development responsibilities *Vis à Vis* the Internet. The library may or may not then choose as a matter of policy to allow its designated Internet connected computers to access materials not in the collection.

### **Caribbean Specific Issues**

The Caribbean represents many different cultures and practices. How many different cultures and practices depend in part on how we choose to define *Caribbean*, *Caribe*, and *Caraiïbe*. European political and cultural influences are strong – and include a British, Dutch, Danish, French, and Spanish presence and later a Soviet imprint in countries like Cuba and Nicaragua. There has also a strong impact from the import of labor from China, India, and Africa to work the plantations or to dig in the mines and canals. And, there are the indigenous peoples ranging from Aztecs and Mayans among others in Mesoamerica and Mexico to the Taino and Carib Indians of the islands. Finally, one cannot ignore the presence and influence of United States, both a part of and apart from the Caribbean.

On a global scale, the Caribbean represents the “small.” First, as we all recognize, there is no

single definition of “Caribbean.” For the sake of argument, I use here the broadest possible definition. The countries of the Caribbean range from Grenada or Antigua to Mexico, Colombia, and Venezuela. And again, there is the United States.

My good friend Angel Calderón Cruz (1979) offered an interesting hypothesis to diagnose the malaise of the Caribbean. He called it the “incompetence syndrome.” He argued that the peoples of the Caribbean had for such a long time been told that they were incompetent that they had come to believe it. Calderón believed that the “incompetence syndrome” was a myth perpetrated upon the periphery by the center as a control mechanism.

The Caribbean therefore shares several different cultural traditions and at the same time, because of its “smallness” is a net importer rather than exporter of information resources, electronic or otherwise. This is however not to say that the Caribbean has not contributed to the global body of knowledge and culture or that the peoples of the Caribbean are in some lights uninventive or uninnovative. If anything, as Aaron Segal and I (1987) have argued, the peoples of the Caribbean are highly inventive and innovative.

I have suggested elsewhere that we can identify ethical standards within our profession from three sources: the codes of ethics of professional organizations, the writings of experts, and the professed core values of practitioners. There has been relatively little such evidence published from the Caribbean region (Koehler 2002). We know, for example, that there are Caribbean professional library and information professional organizations, among them the Association of Caribbean University, Research and Institutional Libraries, the Bahamas Library Association, the Library Association of Barbados, the Asociacion costaricense de Bibliotecarios, the Association Martiniquaise des Professionnels du Livre et de la Documentation, and so on. With some significant exceptions, these organizations have not published codes of ethics and many do not have an Internet presence. There is certainly no requirement that professional associations adopt or publish codes of ethics or that they provide a Web presence. It may also be that some Caribbean library and information associations follow “metropole” codes, such as those published by the American Library Association, with the oldest tradition of a code of ethics or the Association des Bibliothécaires Français, which first published its code in March 2003.

Rosa Maria Fernández de Zamora (2003) brings to our attention a significant difference between some Latin American associations or *colegios* and their counterparts elsewhere in the world. The *colegios* may have wider authority than many other organizations. In order to practice librarianship (and other professions), one must belong to the colegio and subscribe to its rules and code of ethics. Infractions may be punishable by expulsion from the organization and therefore from the profession.

I have suggested there are several types of organizations and therefore codes of ethics (Koehler 2002). The colegio code is quasi-judicial. There are also aspirational, deontological, and educational codes of ethics manifested by our professional organizations. These codes typically follow the function of the professional organization they "regulate."

Forums like the ACURIL conferences provide an opportunity for those of us interested in ethical issues in the profession to initiate a dialogue. I observe that there has been a groundswell of interest worldwide in ethics for the information professions. In keeping with that interest, I can only suggest that the professional organizations found throughout the Caribbean individually and collectively explore their ethical roots and consider development of core value statements and codes of ethics.

Rosa Maria Fernández de Zamora and Martin Vera Cabañas (2002) point out a problem in the

Mexican context, one that may be found elsewhere. They note that of library workers in Mexico, only a small percentage – the graduate librarian – is guided by an associational code of ethics. They urge a broader context to incorporate others under that ethical umbrella. Where similar patterns are found in the Caribbean and elsewhere, perhaps professional organizations might consider extending codes of ethics to include all library or information workers, as appropriate.

One can also identify ethical values by surveying practitioners. There are now a number of studies, especially in Eastern Europe, emulating the work of Dole *et al* (2000) and Koehler *et al* (2000). It might be appropriate to consider a similar study in the Caribbean.

There are a number of steps librarians and other information professionals in the Caribbean can take to promote ethical practice. This paper has touched on but a few. My final suggestion is that individuals and organizations participate actively in regional, metropole, and international organizations as and where appropriate. The Committee on Free Access to Information and Freedom of Expression of the International Federation of Library Associations and Institutions (IFLA-FAIFE) is, for example, an important forum for the discussion of certain ethical issues particularly in advocating our "right to know and to make known."

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### Online Resources

Ethics Links to Librarian and Information Manager Associations,  
<http://books.valdosta.edu/mlis/ethics/>

Committee on Free Access to Information and Freedom of Expression of the International Federation of Library Associations and Institutions: <http://www.ifla.org/faife/>

# Comunidades de Práctica, Aprendizaje Autónomo y las TICs: Hacia Un Desarrollo Profesional Sostenible

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*El estudio continuo, dirigido a mantenerse actualizado en los desarrollos de la profesión, es una de las prácticas mas importantes para los bibliotecarios, documentalistas y otros profesionales de la información (PI). Este esfuerzo no solo es requerido sino esperado por empleadores, supervisores y usuarios de nuestras unidades de información (UI). Se espera que el PI esté informado sobre las últimas adiciones a las colecciones y asimismo que se mantenga actualizado en el manejo de las diversas tecnologías que se mantienen en las UI para el acceso y utilización del público. Lamentablemente, no siempre esto es posible por múltiples razones, algunas válidas otras no tanto.*

*La ausencia de políticas claras en las unidades, pocas oportunidades que no representen un costo para los PI, dificultad des para armonizar el empleo con la participación en estas actividades, ofertas no relevantes, entre otros elementos de naturaleza externa hacen que este grupo profesional no sea fácil la actualización que la profesión reclama. Por otro lado, en los ultimos años se ha documentado el interés en el desarrollo de las comunidades de práctica profesionales como herramienta o modelo para el intercambio de ideas, conocimientos y estrechar lazos entre miembros de un mismo gremio. Las comunidades de práctica pueden generarse como respuesta a algunas de las dificultades mencionadas anteriormente, mas aún si incorporan las tecnologías de información como herramientas para ese propósito.*

*Las tecnologías de información y comunicación (TICs) facilitan la formación y desarrollo de las comunidades de práctica y generan un entusiasmo que trascienda fronteras. Haciendo uso de las redes existentes, las TICs facilitan la autonomía en el aprendizaje y alienta el intercambio de los conocimientos. Es de notar sin embargo que, aunque pueden surgir espontáneamente requieren de una moderación y un mantenimiento para que ésta sirva los intereses de sus integrantes. Esta es una alternativa viable al desarrollo profesional sostenible que pone en manos del PI la responsabilidad por incorporarse a éstas para intercambiar, desarrollar y mantener sus conocimientos actualizados en el campo.*

*Esta presentación comparte ideas, estrategias y sugerencias para la formación de comunidades de práctica entre los profesionales de la información. Se argumenta que la formación de comunidades de práctica facilitan el aprendizaje autónomo y es una alternativa que funciona de forma gratuita y haciendo uso de la infraestructura ya existente en las instituciones y países. Representa particularmente una alternativa para unidades de información con base comunitaria que no tienen los suficientes recursos para proveer estas oportunidades a sus bibliotecarios y PI. Parte de este modelo se sustenta en la teoría de la Zona de Desarrollo Próximo de Lev Vigotsky y los trabajos de Wenger sobre las comunidades de práctica, así como de teóricos y practicantes de la educación permanente.*

## Introducción

El estudio continuo, dirigido a mantenerse actualizado en los desarrollos de la profesión, es una de las prácticas mas importantes para los bibliotecarios , documentalistas y otros profesionales de la información (PI). Este esfuerzo no solo es requerido sino esperado por empleadores, supervisores y usuarios de nuestras unidades de información (UI). Se espera que el PI esté informado sobre las últimas adquisiciones de las colecciones y asimismo que se mantenga actualizado en el manejo de las diversas tecnologías que cada vez están mas presentes en las UI para el acceso y utilización del público. Lamentablemente, la actualización de estos profesionales no siempre es posible por múltiples razones, algunas válidas otras no tanto. Las comunidades de

práctica (CP) que aquí discutiremos pueden facilitar oportunidades para el aprendizaje autónomo y representan una alternativa que puede hacer uso de la infraestructura ya existente en las instituciones en los diferentes países.

En esta presentación quisiera compartir algunas ideas y sugerencias para la formación de comunidades de práctica entre los profesionales de la información y la función que las tecnologías de información y comunicación (TICs) pueden tener en este proceso. Considero las CP como una alternativa para todas las unidades de información pero particularmente para las que con base comunitaria, a veces no tienen suficientes



recursos para proveer estas oportunidades a sus bibliotecarios y PI utilizando los medios tradicionales.

En la presentación reconoceré algunos de los obstáculos a la educación continua y plantearé la formación de CP como una posible alternativa para salvar los mismos. Estas ideas y sugerencias tienen su base teórica en los trabajos en torno a la teoría del construccionismo social generada por el psicólogo ruso Lev Vigotsky y los trabajos de Wenger sobre la formación de comunidades de práctica. De igual forma, se hace referencia a la propia experiencia y a los trabajos de teóricos y practicantes de la educación permanente.

### **Desarrollo Profesional y Las Exigencias de Actualización de Los PI**

La ausencia de políticas claras en las unidades, la confusión de roles técnicos y profesionales, el desconocimiento de oportunidades de desarrollo profesional, dificultades para armonizar el empleo con la participación en estas actividades, ofertas educativas no relevantes, entre otros elementos de naturaleza externa hacen que las opciones tradicionales de la educación continua para profesionales de la información no sean de fácil implantación. Esta profesión reclama de sus miembros una actualización continua que se hace embarazosamente evidente cada vez que un usuario nos alerta de un nuevo servicio, de un nuevo recurso, de una nueva ley o política que desconocíamos. No tener respuestas no es malo, pero no poder ayudar a alguien que nos solicita y espera servicios de nuestra parte es cuando menos incómodo para cualquier profesional con orgullo y que reclame que se le reconozca su *expertise* y calidad de trabajo. De otra parte, nuestra profesión, como algunas otras, ha visto la incursión en ella de personas con una formación mínima que, sin proponérselo, devalúan el trabajo del PI. Es desmoralizante y problemático cuando nos enfrentamos a la idea de que un adiestramiento corto puede sustituir la formación integral, comprensiva y crítica de un PI. Por otro lado las tecnologías de información instaladas en las UI han transformado las formas de trabajo del bibliotecario y PI y han creado nuevas exigencias para éstos. Sin embargo, no se puede confundir la habilidad y conocimiento tecnológico, aún con lo importante que es éste, con la capacidad crítica y la comprensión cabal del mundo de la información. Por esto existen diferencias entre técnicos y profesionales. Por competentes que sean, muchos técnicos no poseen la profundidad de entendimiento del

campo de la información como los profesionales de esta área. Como PI, sin embargo es nuestra responsabilidad mantenernos actualizados en los desarrollos de nuestro campo y apoyar a los colegas paraprofesionales en su desempeño.

La educación continua en sus diversas formas, es parte de una larga tradición en el campo de la bibliotecología y ciencias de la información que a su vez se incorpora a un movimiento mayor que alienta el concepto de aprendizaje permanente (lifelong learning). El desarrollo profesional y educación continua o permanente planteados por Houle (1984), Mezirow (1981), Apps (1988) entre otros practicantes y teóricos de la educación de adultos es parte de nuestra tradición. El desarrollo profesional casi siempre toma forma en convenciones y eventos locales, nacionales e internacionales. Sin embargo hay que reconocer que no siempre es posible asistir a este tipo de actividades de desarrollo profesional por ausencia de recursos fiscales o por no contar con sustitutos que asuman nuestras tareas mientras asistimos a estas actividades. Desde ausencias sin programar, falta de visión de algunos supervisores y la consistente falta de recursos económicos impiden que las organizaciones apoyen efectivamente a sus miembros en su mejoramiento profesional. Es aquí donde las CP pueden representar una alternativa viable, económica y sobre todo autónoma para el desarrollo profesional continuo de los PI.

### **Las Comunidades de Práctica y Su Aportación Al Desarrollo Profesional de Los PI**

En los últimos años ha aumentado el interés en el desarrollo de las comunidades de práctica profesionales como herramienta o modelo para el intercambio de ideas, conocimientos y estrechar lazos entre miembros de un mismo gremio. Las comunidades de práctica pueden generarse como respuesta a algunas de las dificultades mencionadas anteriormente. Quisiera invertir un poco de tiempo en plantear mi concepción de las comunidades de práctica ya que algunas personas tienen la creencia de que si queremos las comunidades de práctica, de aprendizaje o de otro tipo se pueden concretar de manera rápida y eficiente. He planteado en algunos de estos foros acurieleños lo que considero son características de una comunidad real y reitero que considero que se alcanza comunidad si sus integrantes "han aprendido a comunicarse honestamente entre sí, ...existen relaciones más profundas que las máscaras de la compostura y que han desarrollado un compromiso de alegría mutua,

pesar mutuo y la capacidad de deleitarse mutuamente al punto de hacer la condición del otro la suya propia (p.59)". Naturalmente en el contexto de las comunidades de práctica, Wenger y sus colegas es mas relevante.

Cuando nos referimos a comunidades de práctica estamos hablando de lo que se rubrica como "grupos de personas que comparten una preocupación, un conjunto de problemas o la pasión por un tópico y que profundizan su conocimiento y expertise en esa área mediante la intreracción continua entre ellos" (Wenger, McDermott & Snyder, 2002). Esta concepción de comunidad parte de la teoria expresada por Wenger (1998) en su trabo con estos conceptos donde éste plantea que el aprendizaje es un proceso social. La teoria de Wenger, aunque con sus diferencias tiene relación con lo expuesto por otros educadores comprometidos con el desarrollo de niveles mayores de justicia social y convivencia tales como Freire (1968). De otra parte, el planteamiento también tiene eco en los trabajos de construccionistas en la tradición de Lev Vygotsky, (1978) particularmente en lo relativo a la "zona de desarrollo próximo". La zona de desarrollo próximo tiene relación con esos momentos en el desarrollo de una persona, niño, joven o adulto en las que éste es incapaz de realizar la tarea asignada o escogida ya que se encuentra fuera del alcance de su desarrollo en ese momento histórico. Vygotsky argumenta que el aprendizaje, por ser de naturaleza social requiere el apoyo de otros que se encuentren en el momento histórico determinado, en una zona mas adelantada, es decir que son capaces de realizar unas tareas y posee unos conocimientos que otros no tienen. Estas personas, comunes y corrientes pueden servir de apoyo para que otros podamos movernos a un próximo nivel en nuestro desarrollo. Aun cuando las teorías de Vygotsky se generaron en el contexto del aprendizaje del lenguaje en niños, su teoría tiene aplicación multidimensional y a través de las disciplinas. En esencia, el planteamiento de Vygotsky aplicado a las ciencias de la información es que existe una brecha entre el estado de la profesión en este momento histórico, donde para ser competente y competitivo se requieren unas destrezas, conocimientos y actitudes que no estaban presentes antes, y el nivel de desarrollo profesional de algunos de los profesionales que participamos de este gremio. Esto hace necesario que colegas que estén en una zona cercana al desarrollo del campo, pero que sean competentes en aquellas áreas necesarias por otros, apoyen los colegas que se encuentran en una zona menos próxima al estado de desarrollo del campo o de sectores

del mismo. Las comunidades de práctica pueden resultar el contexto idóneo para ese propósito.

Según las define Wenger (1998), las comunidades de práctica tienen como centro el aprendizaje de todos sus integrantes. Alrededor de este propósito central giran cuatro elementos clave a saber: *comunidad, identidad, práctica y significado*. En cada uno de estas dimensiones ocurren procesos de aprendizaje que al integrarse permiten a un miembro de una comunidad de práctica ser un ente proactivo, capaz y competente. En el elemento de comunidad, el aprendizaje es experimentado como un sentido de pertenencia necesario para que la persona se sienta cómoda, segura y esté en condiciones de intercambiar con otros integrantes de la comunidad, tanto aquellos mas adelantados como los menos adelantados. Nuevamente hacemos referencia a la experiencia del aprendizaje permanente y de adultos donde la práctica, al igual que la teoría, revela que el acercamiento colectivo es apropiado y efectivo para que los adultos aprendamos entre sí. La formación de comunidades de todo tipo ocupan buena parte del tiempo de os adultos profesionales consciente o inconscientemente. Todos buscamos que nuestros centros de trabajo sean lugares cordiales, con la menor cantidad de conflictos posible y sin relaciones antagónicas. Sabemos lo difícil de lograr esto y es una de las razones por las cuales muchos profesionales cambian de empleo creyendo que en otra organización no será igual, solo para encontrar los mismos patrones y las mismas conductas organizacionales. Naturalmente una vez se cobra conciencia de que se está en busca de esa comunidad, comenzamos a entender que no va a surgir sin un esfuerzo conciente de todos los involucrados, pero esa comprensión hay que desarrollarla con el tiempo y la reflexión.

En la dimensión de identidad, las personas aprenden en el proceso de hacerse parte de la comunidad. El proceso de ir asumiendo una nueva identidad no es fácil ni lineal ni es igual para todos. Por eso cada persona tiene que experimentar el proceso de identificarse o asumir la identidad de miembro de esa comunidad. Mientras somos estudiantes estamos asumiendo un rol social, es decir asumimos una identidad de estudiante independientemente que aprendamos o no. La identidad de aprendiz, sin embargo la adquirimos cuando la asumimos con plena conciencia de que estamos en la búsqueda de conocimiento, destrezas o la aclaración de ideas que forman nuestras actitudes. En esta

identidad reconocemos que estamos ante una organización que puede, estructuradamente llenarnos esa expectativa porque hay allí miembros, de la institución y de la comunidad profesional a la que aspiramos entrada, que se encuentran en una zona de desarrollo mas avanzada que la nuestra y están en la disposición de apoyarnos. Luego entonces es un proceso de socialización a la profesión donde vamos paulatinamente asumiendo una nueva identidad.

El proceso de aprender a hacer, el de la práctica, es uno de los ejes centrales del modelo de comunidad de práctica. A través de las acciones y de el hacer, los miembros de la comunidad se van conociendo y van aprendiendo lo que implica ser parte de una comunidad. En ese proceso de trabajo y de hacer, los miembros de la comunidad van consolidando su identidad y a la vez aportando nuevos elementos a éstas. A través de la práctica de las comunidades profesionales se va forjando una historia y una tradición que muchas veces es mas fuerte que los reglamentos institucionales. Frecuentemente los nuevos miembros de las comunidades de práctica chocan con las tradiciones pero es un proceso natural de conflicto que existe allí donde se reúnen personas pensantes. Lo importante es entender el proceso e insertarse como elemento activo en el mismo, de otra manera no entenderemos lo que ocurre al interior de la comunidad.

Así entonces, la cuarta dimensión de este modelo el proceso de interpretación o de hacer significado se convierte en el proceso de aprender mediante la experiencia. De comprender lo que significa la comunidad a la que estamos entrando para nosotros y para la sociedad. Esa experiencia es la que permite que las comunidad crezca y se desarrolle. El dicho de que los adultos no aprendemos de la experiencia sino de lo que hacemos con la experiencia resulta ser relevante en este modelo. Es posible, y así lo entiende el autor que en la interacción entre estas dimensiones, elementos o procesos, se vayan construyendo los significados que en el contexto de la práctica profesional definen los estándares de ésta. Estos estándares entonces son transmitidos en el proceso de formación profesional de nuevos integrantes de la profesión y el ciclo comienza otra vez.

La formación de comunidades de práctica es parte de nuestra vida cotidiana. Desde la familia hasta los vecindarios, estamos haciendo comunidad de práctica, ya sea para sobrevivir

o para afincar nuestra identidad (Wenger, 1998).

En ese proceso los miembros de las comunidades han hecho uso de diversos herramientas y tecnologías, en nuestro caso las tecnologías de información vienen a la mente como las mas evidentes de éstas.

Sabemos que en el desarrollo de nuestra profesión, la irrupción, a veces desorganizada, de las tecnologías de información ha representado un punto de conflicto y choque que ha transformado ésta y que ha sacudido sus tradiciones sin dejar de ser útil para llevar la profesión a un nivel de desarrollo que le ha permitido redefinirse conceptualmente y ampliar su presencia en la vida de nuestros conciudadanos. La versatilidad de las TICs ha servido a la profesión. Debemos explorar las formas en las que puede convertirse en herramientas efectivas de formación profesional y de facilitadoras de las comunidades de práctica. Especialmente en el entorno caribeño.

### **Las Tecnologías de Informacion y Las Comunidades de Practica en El Caribe**

Hasta ahora hemos planteado la naturaleza de los procesos que llevan a la formación de comunidades de práctica, la necesidad y las dificultades en el desarrollo profesional de nuestros colegas. Queremos ahora enfocar nuestra atención en el papel que pueden jugar las tecnologías en fortalecer nuestro desarrollo profesional de manera sostenible para nuestras instituciones.

Las tecnologías de información y comunicación (TICs) facilitan la formación y desarrollo de las comunidades de práctica y generan un entusiasmo que trasciende fronteras. Al entrar en el panorama las tecnologías de información, éstas transforman el ambiente de trabajo completamente. No es cierto que las tecnologías sean tan sólo una herramienta adicional que tiene el bibliotecario, realmente la integración de las TICs hace que el entorno laboral se convierta en fuente incalculable de recursos de información pero además convierte al bibliotecario en un profesional con destrezas tecnológicas sofisticadas y con la posibilidad de crear productos que lleven en sí el valor que el profesional le infunde. Las TICs representan un cambio radical con las prácticas y tradiciones que las comunidades de práctica existentes habían generado. En ese sentido, estas tecnologías pueden percibirse amenazantes, sin embargo tienen la posibilidad de mejorar significativamente la calidad de nuestro trabajo y nuestro desarrollo

profesional. En muchas de nuestras unidades de información existen tecnologías con acceso a Internet para realizar búsqueda de recursos que nuestros usuarios necesitan. Cada vez es mas evidente la necesidad de que nuestros colegas en todas las unidades posean destrezas tecnológicas mas allá de su uso personal. Hablo de destrezas de trabajo tecnológico para nuestro beneficio profesional pero además necesitamos desarrollar las destrezas para adiestrarnos y adiestrar a otros. Para esto podemos usar la tecnología de todo tipo que tenemos disponible en muchas de nuestras unidades. Sabemos que no todas las unidades y no todos los colegas tienen acceso a tecnologías de información sofisticadas. En ese sentido el Caribe tiene desigualdades marcadas. Sin embargo, las tecnologías existentes pueden ser las que contribuyan al desarrollo de todos en la región. Las TICs pueden ser los recursos que motorizan la formación de comunidades de práctica en nuestra profesión. Las diversas tecnologías disponibles, integradas adecuadamente pueden apoyar el intercambio de saberes en nuestra profesión. Wenger (1998) plantea que en las comunidades la gente funciona tratando de establecer relaciones que promuevan el desarrollo de confianza mutua. Ciertamente la confianza mutua es sumamente importante para entrar en un proceso de aprendizaje con colegas en otras instituciones o países. Sin embargo entrar en ellas y estar dispuesto a aprender y a aportar resulta en una gran satisfacción.

Las comunidades de práctica no son nuevas, sabemos que entre las comunidades científicas ocurren con frecuencia mas cercanías entre investigadores a miles de millas de distancia que con colegas en el mismo edificio. Esto se debe a la existencia de intereses comunes y a la voluntad de la colaboración. ACURIL es una de los instrumentos de colaboración que tiene la región caribeña para adelantarla idea de las comunidades de práctica. En cierta medida ha funcionado como tal alentando el intercambio pero ha sido insuficiente, no por indiferencia ni por ausencia de reconocimiento de la importancia de este intercambio sino, a mi juicio, por la ausencia de una colectivo inicial que mantenga la comunicación y la colaboración entre conferencias anuales. Los grupos de interés pueden y deben convertirse en comunidades de práctica que mantengan intercambios todo el año. Las tecnologías de información y comunicación . En otras ocasiones he hecho intervenciones en estos foros planteando el valor de las comunidades físicas y virtuales en el desarrollo de nuestra región. Además hemos sugerido la formación de

comunidades de práctica como vía para afianzar nuestra profesión en el Caribe y promover su desarrollo. Reitero que las comunidades de práctica pueden ser el vehículo que le permita el desarrollo sostenido a esta profesión mas allá de los límites de cada país. Para esto es necesario que continuemos valorando el desarrollo profesional y reconozcamos la necesidad de profundizar en éste. Reitero además que las tecnologías existentes pueden ser un recurso valioso en esta gestión.

Haciendo uso de las redes existentes, las TICs pueden facilitar la autonomía en el aprendizaje y alienta el intercambio de los conocimientos. Las comunidades de prácticas apoyadas por las tecnologías pueden servir para adelantar las aspiraciones de mejoramiento profesional de colegas mediante el intercambio a distancia y la colaboración en investigación. Hemos dicho anteriormente en este documento que las comunidades de práctica son parte de nuestra vida diaria. Es de notar sin embargo que, aunque pueden surgir espontáneamente, en el ámbito profesional requieren de una moderación y un mantenimiento para que ésta sirva los intereses de sus integrantes. Esta es una alternativa viable al desarrollo profesional sostenible que pone en manos del PI la responsabilidad por incorporarse a éstas para intercambiar, desarrollar y mantener sus conocimientos actualizados en el campo. Para la existencia de estas comunidades de manera efectiva es necesario crear unos acuerdos de participación mínimos, que otros llamarían reglas pero que en el contexto de las comunidades son acuerdos ya que todos los integrantes coinciden en formas de conducta e intercambio que permiten la convivencia e incluso definen los procesos para manejar los conflictos que sin duda surgirán.

La mayoría de los PI en nuestra región cuentan con una computadora con acceso a Internet. Algunos cuentan sólo con la computadora pero tienen capacidad de leer CD-ROM. En todo caso, la inversión es mínima. Lo importante es la creación de la comunidad de práctica mas bien la transformación de los grupos de interés en comunidades de práctica para iniciar un inventario de recursos que cada uno pueda contribuir para generar actividades de discusión en línea y a través de otras modalidades como la distribución de CD-ROM, la colocación de documentos en el portal de ACURIL para generar el intercambio de saberes entre los profesionales de la información en la región.

Para terminar quisiera reiterar que la formación de comunidades de práctica profesionales en la región caribeña es un esfuerzo necesario en esta sociedad de la información globalizada en la que nos toca vivir y desarrollarnos. Sostengo que tenemos la teoría para hacerla si aplicamos los conceptos de Vigotsky y de Wenger en cuanto a las posibilidades de construir conocimiento colectivamente en el Caribe y proyectarlo a otras regiones del planeta. Estas no son las únicas teorías y lo que sugiero aquí no es la

única forma de hacerlo, lo importante es que lo hagamos. Las tecnologías de la información resultan ser recursos valiosos en este esfuerzo pero tampoco son los que determinan qué y cómo se hace, eso lo hacen los integrantes de las comunidades. Las tecnologías nos pueden servir para ampliar nuestra comunicación, nuestro desarrollo profesional mediante este esfuerzo de gestión del conocimiento de los PI en el Caribe. Hacia esto debemos dirigirnos.

# Grant Proposal Writing: An Essential Skill for the Information Professional in the Electronic Environment

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*The rapid advances and sophistication of digital technologies have resulted in users placing greater demands on the library services. Today's users have higher expectations than their counterparts of yesteryear. Librarians have ideas and the capacity to meet these expectations but they have little or no funds with which to implement them.*

*Some donor agencies and corporations have the financial resources but lack the other resources needed to create and implement programmes. It is believed that if the donor agencies, the corporate organizations and the librarians are brought together effectively, the results can be dynamic.*

*Librarians operate in an environment where budgets are limited, where there are cutbacks on government subsidies and where client's demands for electronic resources increase daily. The needs of the library vary depending on the clientele served. One library's need might be to acquire some databases; another's might be to become automated, another might need additional staffing while others might just need funds to purchase more computers. Regardless of the needs, many libraries have one thing in common – insufficient funds.*

*Fulfilling these needs demands additional funds. Writing a grant proposal is one means of seeking additional funds. Funds can be sought locally, nationally, regionally and internationally. This presentation aims to provide librarians with the techniques needed to write a successful grant proposal. It will present characteristics of a successful proposal. Participants will be given ideas as to what funders are looking for and they will be shown pitfalls to avoid in writing their proposals. All major elements of a proposal will be highlighted and discussed.*

## Introduction

Faced with budget cuts, decreased subsidies and increased demands libraries can benefit from government, private foundation and corporation awards through successful grant writing. Grant writing has become an essential skill for the information professional in the electronic environment. It is the grant writing skills of the information professional that is going to lead to success in obtaining some of the funds needed to meet the clients demand.

### *Preparing to Write the Proposal*

A grant proposal is a document prepared for application for funding. It sets forth ideas and plans in the hope that the receivers will accept them and plan to fund them. It should be a persuasive message telling the receivers of the benefit to them, be it their organization, their community, society or some groups in which they have interests.

The individual preparing the proposal is the proposal writer. The government agency, the corporate body or the donor agency to which the proposal is sent is the funder.

### *Writing a Successful Proposal*

There are two stages to writing a successful proposal:

Stage 1: research and preparation

Stage 2: writing and submitting the proposal.

### *Research & Preparation*

Research your funders. Many proposals have failed because the grant writers had not put in enough research before the proposal was submitted. Research will provide grant seekers with information about potential funders. It will help grant seekers to determine if they fit the match. When evaluating a proposal the reviewers look to see if: (a) the proposal meets the purpose of the funding agency (b) it demonstrates a need for the project (c) it links the operational plan and the identified need (d) delineates a realistic budget and evaluation plan (e) it documents the availability of personnel and resources to support the project (Evans, 2000). The grant writer should be flexible. If the match does not fit, consider altering it. An examination of funder's profile will show the grant seeker if his project will qualify or be disqualified. The following steps

should be followed when conducting your research:

- Step 1. Compile
- Step 2. Investigate
- Step 3. Refine

### *Compile*

Make a list of all possible funders whose geographic location and interest will guide them to support your project. List all regional and international corporations and foundations, which had given grants to projects similar to yours.

### *Investigate*

Use the following criteria to find out how your project fit the match.

Limitations: Many funders state clearly the groups to which they will contribute e.g. higher education, museums, libraries etc.

Type of support: Do you need funding for basic operating support or funding for construction or equipment?

Purpose: Examine the funder's purpose statement. Does your project fit?

Field of interest: Does your project fit in the stated field of interest?

Previous grant: Were any grants made in your field? Is there any chance that one will be made?

Amount of grants previously funded: Does the organization grant more or less than the sum you need? Know their ceiling.

Geographic location: Is the project to be carried out in a geographic locale that fits within the area that the funder has specified? Some funders will provide funding in communities where they have a presence (defined as operating location, headquarters or a branch).

In your search for information make use of all available resources:

Print: Annual reports - corporate organization and funding agencies annual reports reveal extensive information about them. The business section of newspaper can be a good source of information, so too are brochures and facts sheet put out by the organizations.

Personal contact: Some inside information can be had from knowing someone who works with the funder. The information obtained from this source can give you an edge over your competitor. Should you be visited by a potential

funder use the opportunity to gain some information. At the same time, try to see how your project will be rated. Make maximum use of every minute the individual spends at your library.

Using Technology: The Internet is a grant seeker's ever-present assistant, it is free, it is available and its resources seem unlimited. There is a wealth of information in cyber sphere for the grant seeker. You can have all you need to know about a company within seconds just by punching a few keys or by a click of the mouse. A computer, an e-mail account, a fax machine and access to the Internet are a must for the grant writer. Some funding agencies have online application forms. All you need to do is fill in the blanks. E-mail is the preferred way of communicating for some funders.

### *Refine*

Having researched a number of organizations you make up your short lists. These prospective funders are the ones that are most likely to fit your particular need. Re-examine the organizations guidelines for proposal submission then prepare your proposals. Since organizations get several requests it is wise to send your proposal to more than one. This increases your chances of getting a grant. Each funder is unique. The proposal should be tailored accordingly to fit the funder's guidelines. Use the language of the funder. Follow all the directions provided by the funding source on how to apply for grants.

### *Writing the Proposal*

Having researched your potential funders you are ready to prepare your proposal. With the proposal in hand you will have the answer to just about anything to do with the project.

Your proposal will be customized to the funder's specification. Some proposals will require all the proceeding elements, some will require just a few. It all depends on the elements that will support your case.

### **Elements of a proposal**

The executive summary: this is the first page of your proposal. It introduces the funders to your project encapsulating all the key information about the project. It is a sales tool designed to convince the funder to support your project. The summary is usually written after the proposal is completed. It is recommended that your summary be a one-

page document. It should include the need statement, the solution, and the funding requirement. Use your executive summary to create a good first impression. Remember you never get a second chance to create a first impression.

The background: this identifies the problem and gives the history. Include information about your library, its purpose, its mission and its location. Sell yourself, your institution, and your community so that the funder will know that there is no better project in which to invest than yours (Henson, 1997).

The statement of need: explain the problem you will solve with the funds received. Use compelling words to present your case. One writer puts it this way “Use compelling words to relay the gloom, doom, drama and trauma of your situation and why your organization needs grant fund”. Convince the funder that the grant is needed, that your library cannot continue to exist in this electronic environment unless some changes take place. Changes you need the grant to make. Many proposals have failed because funders could not see any clear identification and substantiation of a specific need or problem.

The plan of action: this is considered as the most important aspect of your proposal. It is sometimes referred to as the programme design, or work plan. In this section the grant writer includes:

A purpose statement

A vision

Goals and objectives

Strategies for solving the problem

In summary the grant writer states what is to be done, how, when, where, by whom and why.

The purpose statement: This statement tells the funder why you are asking for the grant. It should be brief and clearly state what the funds are to be used for. The purpose statement should not be more than one sentence long.

For example: “ the purpose of this request is to seek grant funding to provide the library with an automated system to integrate its operations”.

The vision: This gives a global view of where you want to go. Create a vision through goals

Goals: These are global visionary statements. The goals express the ends you strive to attain.

They state where you want to be when the grant is used up. For each goal there should be one or more objectives. Goals and objectives should be numbered as follows:

Goal 1. Objective 1a. Objective 1b.

Goal 2. Objective 2a. Objective 2b etc.

Objectives: These are measurable benchmarks often in steps that lead up to a goal. Objectives can be either process oriented or outcome oriented.

Process objectives are usually abstract in wording and are not quantifiable or measurable. The process objective may begin in one of the following ways:

To provide

To develop

To establish

Outcome objectives are quantifiable and measurable, for example:

To add 120 seats to the seating capacity of the library;

To extend the library’s opening hours by two hours during the exam season;

To dedicate 70% of the funds received to the purchase of computer software and licenses  
Whatever the objectives are, keep them specific, measurable, achievable, realistic and time-bound.

### **Strategies for solving the problem**

Whatever your goal is, the steps that will be taken to achieve the goal comprise your implementation strategies. In writing your strategy for implementation include every detail on a step-by-step basis. Be brief, be clear and be specific.

Time: Although it is impossible to predict the exact time your project will take, you should include a realistic estimate. A simple timeline will indicate how to proceed. Timeline tells the story accurately. It tells the funder when each activity will begin and end. If the funds are needed for 1-year state what will happen in each quarter. Suppose you want to install an integrated library system, your timeline should tell the story (See table 1).



**Table 1 Integrated Library Systems Project**

ACTIVITY	1 <sup>ST</sup> QUARTER	2 <sup>ND</sup> QUARTER	3 <sup>RD</sup> QUARTER	4 <sup>TH</sup> QUARTER
A	*	*		
B	*	*		
C		*	*	
D			*	
E			*	*
F			*	*
G				*
H				*

**Personnel:** Identify the persons who will be involved in the project. State their individual qualifications. Emphasis should be placed on the experience that has given the necessary expertise. If you have no experience to write about, then you should include any publication you or your team-mates have in that field. Mention previous grant management experience.

Although the project falls under the library remember the librarian is not an expert in every field. Where the project is large or technically complex requiring experts in different fields, these experts should be included.

If a consultant is needed then the consultant should be added. The Curriculum Vitae of each person involved can be included in the appendix.

**Benefits:** Write about how what you are doing will reduce the problem discussed in the statement of need. State the impact the project will have on the target population, the community and the society.

**Budget:** The budget shows how the grant will be spent. It uses numbers to refine the picture presented in your plan of action. In preparing the budget identify all the items and put a cost beside them. Be realistic in your costing. On going expenses that may be incurred by items allocated to the project should be included. Include the salaries of the persons who will be working on the project. If consultants will be used, include their fees.

Recognize when you are out of your depth and seek assistance. Many proposals fail because budgeting is badly carried out or because there is a lack of clarity to show how funds are to be spent for project activities.

**Presentation:** Your proposal should look like a winner. The format, graphics, font, and binding should convey to the funder that you have what it takes to spend his money. Now that you have the proposal in hand check for clarity-remove any unnecessary jargon, unnecessary words, and replace long expressions with simple words.

There is some preliminary information that is included in the proposal - these are the title page, the table of contents, the list of illustrations and tables and the cover letter.

Before submitting the proposal prepare a checklist using the request for proposal and match it against your proposal. The proposal should be submitted only after every item that has been requested is present in the required format, number of pages, using the font stipulated, and the number of copies. Remember if you are playing in someone's ballpark, play by his rules.

### **Conclusion**

The competition for grant money is great. Sometimes the winning proposal beats its competitor by a fraction of a point. Do everything to ensure that your proposal gets that fraction of a point.

If your proposal did not get the grant don't be discouraged. Consider asking the funder for a critique of the proposal and a copy of the reviews. These will show you what you have missed and help you next time around. Keep copies of old proposal, you don't have to start every proposal from scratch.

Should you get more than one grant inform each funder. Show how each grant will be used to expand the project. Be honest and open.

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## Discussion

1. Dorothy Palmer from Jamaica commended Ms Bradford for her presentation and agreed with her that sports organizations get the lion's share of international funding since most people can identify with sports. Ms. Bradford commented that sports organizations seem to have excellent marketing skills and suggested that Librarians learn to develop such skills themselves.
2. Margot Thomas from St. Lucia asked if the grant was not offered after the proposal had been presented what could be the reasons behind such a decision? Ms Bradford answered that the Library should ask the DAs for the reasons why the grant was not offered and warned that the Library should review the proposal for possible errors and omissions where the proposal did not satisfy the criteria.
3. The final question asked was from a conference participant in the francophone Caribbean who wanted to know if it would be advisable to pitch the proposal to several DAs simultaneously if you do not have specific Agency in mind. Ms Bradford responded that yes it is recommend that the Library approach several donars but warned that it is proper protocol to let each know that you are presenting the proposal to the others.
4. Jaishree Kochhar, the Moderator closed the session by commenting that when writing a grant proposal that it is critical to choose the words carefully, since, oftentimes the proposal would be the only method the Das would have of evaluating the project.

(Notes by Caroline Kangalee (Trinidad and Tobago))

## **Caribbean Imperative: Crossing the Global Divide in Electronic Information Provision/Resources**

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The global trends in information resources are converging. Computer networks are extending their reach. Digital libraries are proliferating and the user community is growing exponentially. These global developments combine to make vastly more information resources available to more people in more places. And libraries are taking the leading role in providing access to these resources. However, we recognize that there is a global divide and although it is part of a total economic paradigm, developing economies like the Caribbean, seem to be further apart in this divide. The main question here is where the Caribbean electronic information resources reside in this global atmosphere, and how can we cross this global divide?

This paper will attempt to highlight the global trends in electronic information resources; trends such as, the impact of the general use of the personal computer, electronic information resources via the Internet, the expanding information formats, the concept of market driven information resources and services, the global digital library, as well as others.

We will highlight the current status of the Caribbean library as compared with these global trends, and in an attempt to cross the global divide, highlight the challenges and the opportunities for Caribbean libraries, as they exist. This paper will emphasize that the Caribbean library is capable of achieving the technological awareness and competence of its global counterparts, and that, through the exploration of the current situation within the Caribbean library a path can be defined that will move it towards the electronic era.

We will attempt to provide a road map towards the goal of a digital library. In this process we will critically review the conceptual and perceptual challenges that may hamper this move. This paper will propose solutions on how to overcome these current challenges and how to maximize the opportunities that may exist by expanding on the concepts such as strategic partnerships, interlibrary and inter-institutional cooperation as well as more focused and designed resources tailored to clients' needs. The standards of services, product definition, and delivery options can, through planned efforts and cooperative activity, play a significant role in effectively serving the needs of library users in all library and information institutions within the Caribbean.

## **The Preservation of Digital Media**

Jo-Ann Georges

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Digital technology has been in use in libraries for many years and increasingly material is being acquired only in digital formats. In addition resources are being put to converting items in the analogue collection into digital format. This paper looks at the life expectancy of digital media and the implications for preservation and use of digital media libraries.

## **El profesional de la información como gestor del conocimiento en red (GCr): Su desarrollo profesional y funciones**

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La Internet está formada por una serie de redes que fueron creadas basadas en una arquitectura abierta. Esto es, existen conexiones a la misma a través del mundo, sin que ninguna computadora tenga una misión de control o de establecer reglas por las que deban regirse las demás. Este tipo de estructura permite que los usuarios de la red, no importa su localización física, contribuyan a la información que se comunica, dependiendo del objetivo que tenga para su participación.

Esto implica una enorme cantidad de información fluyendo por este tipo de red, lo que algunos de forma equivocada podrían interpretar como democracia digital. Sin embargo, mientras más personas participen contribuyendo a la red, más expansiva es la misma y más turbulenta es la organización de la información que contiene. Para los usuarios es difícil localizar la información que necesitan y verificar si es exacta. Por tanto, para facilitar los procesos anteriores se necesita la gerencia del conocimiento en red (GC-r).

Las competencias del profesional de la información actual le dan la base para desempeñarse en el nuevo entorno de la red. Sin embargo, existen competencias adicionales que los currículos de las escuelas de ciencias de la información deben enfatizar para que la ejecutoria y participación de los profesionales de la información en la participación y creación de redes inteligentes sea una efectiva y eficiente.

En esta ponencia se discutirán las competencias con que el profesional de la información cuenta, que le hacen idóneo para contribuir al desarrollo del conocimiento en red. Se discutirán las otras áreas de competencias a enfatizar en su desarrollo profesional. Además, se identificarán las funciones de este profesional en la participación y el diseño de redes inteligentes.

## **The 2003 OCLC Environmental Scan: Issues and Trends Impacting Libraries and Allied Organizations**

Nicholas Cop

*OCLC Latin America & The Caribbean, Dublin, OH, USA*

As part of its annual strategic planning activities, OCLC management recently prepared a report of external factors influencing libraries, OCLC, and allied organizations. Interviews were conducted with more than 100 knowledge experts around the world, representing a wide variety of organizations. The collective input from these interviews, in addition to literature review and extensive research, yielded a wealth of insights on the real, day-to-day issues facing information professionals. That research has now been used to create The 2003 OCLC Environmental Scan: Pattern Recognition, a report for OCLC member libraries. The report explores trends in a variety of “landscapes”, including:

- Social Landscape
- Economic Landscape
- Technology Landscape
- Research & Learning Landscape
- Library Landscape

The report examines significant issues and trends impacting libraries, museums, archives, other allied organizations and OCLC. It provides a high-level view of the information landscape from the perspective of the “Information Consumer”. The report contains many interesting findings and is intended to both inform and stimulate discussion about future strategic directions.

The presentation will summarize and discuss the findings of the report and how they impact core competencies required by librarians today and in the near future.

# **The United Nations Library Consortium: A User's Perspective**

Esteban Perez

*United Nations Economic Commission Latin America and the Caribbean (UNECLAC), Trinidad and Tobago*

El objetivo principal del consorcio de librerías de las Naciones Unidas es lograr economías de escala en todo el sistema por medio de la suscripción conjunta a publicaciones en formato electrónico accesibles a través de Internet. Los beneficios incluyen la entrega en tiempo adecuado de información crítica y facilidades de acceso durante todo el año con independencia del lugar geográfico. Aunque las suscripciones al sistema están centralizadas el personal de las Naciones Unidas en las oficinas regionales y subregionales; el personal que trabaja fuera de la sede y en operaciones de paz también puede tener acceso a la misma información. El objetivo de la presentación es proveer un análisis del consorcio de librerías de las Naciones Unidas desde una perspectiva de usuario. La presentación examina la variedad, heterogeneidad y calidad del material que incluye el consorcio de librerías y su uso potencial fuera de la sede. También trata de identificar los canales de difusión y distribución de la información que provee el consorcio centrándose en las necesidades del usuario. Finalmente examina de manera preliminar el ahorro potencial y costo de oportunidad de las facilidades que ofrece el consorcio.

## **Discussion**

This paper, The United Nations Library Consortium: a user's perspective was presented by Sandra John on behalf of Senor Esteban Perez who was unavoidably absent. The paper was presented in English, but the power point slides were displayed in the original Spanish. In addition to describing the variety and quality of the information resources available through the consortium, Senor Perez, an economist, brings his professional perspective to the issue and explores the savings potential and the cost-benefit of the Consortium.

The UN Library Consortium, initiated in 1998 with the cooperation of the Information Systems Coordinating Committee (ISCC), sought to achieve system-wide economies of scale through joint subscriptions to electronic information available via the Internet. The Dag Hammarskjold Library at the United Nations Headquarters in New York was designated coordinating agency. By 1999 the Consortium had attracted 28 UN agencies and one year later this number had risen to 37 agencies, which offered products from 13 vendors.

The Economist Intelligence Unit databases, ProQuest Direct, News Edge, the Latin American Newsletter, Columbia International Affairs Online and the United Nations Optical Disk System are among the resources to which the ECLAC office in Port of Spain has access through the Caribbean Documentation Centre.

The presentation made the point that libraries were gradually moving towards becoming virtual libraries and this had the potential to increase accessibility and reduce costs substantially. There was however still need to provide access to hard copies of documents in cases where the Internet was not available or easily accessible.

For the United Nations System the potential savings achieved from the use of the Consortium were estimated at \$58 million between 1998 and 1999 and in the case of the ECLAC Subregional Headquarters for the Caribbean, if the Caribbean Documentation Centre had to subscribe individually to all of the resources currently accessed through the Consortium it would have the effect of doubling or tripling its current budget.

(Notes by Beverly Archer (Barbados))

## **Informatiser les petites bibliothèques : manager la réalité**

Simone Marie-Rose

*Institut National des Techniques de la Documentation, Martinique*

L'explosion technologique dans le domaine des nouvelles techniques de la création et de la diffusion de l'information n'est pas sans conséquences dans le domaine des bibliothèques.

Dans ce contexte, l'informatisation d'une bibliothèque se pose dans des termes nouveaux. Il ne s'agit plus seulement d'automatiser toutes les fonctions normalisées et répétitives du circuit du livre pour faciliter la gestion de la bibliothèque et la rendre plus efficace mais également et de plus en plus d'introduire les nouvelles techniques informatiques, les documents multimédias et l'internet avec ses services variés : courrier électronique, transfert de fichiers, forums de discussion, etc...

Quelle que soit la taille de son établissement, le responsable d'une bibliothèque doit tenir compte de cette nouvelle donne du secteur de l'information. Il ne doit plus se demander pourquoi informatiser, mais bien quoi informatiser et pourquoi faire ?, convaincus du bien fondé et de la nature indispensable des réseaux, et par ailleurs entamer une réflexion sur son rôle de médiateur de l'information.

Pour une petite bibliothèque publique, le challenge est important. Face à cette mutation de fond du paysage des lieux de lecture, elle doit, plus que toutes autres, s'affirmer médiathèque pour s'adapter au monde moderne et défendre sa place au sein de la vie de la commune comme lieu d'appropriation culturelle des nouvelles technologies et outil de citoyenneté.

### **Discussion**

Mme. Bea Bazille representing Guadelupe asked: Can we not train to reduce the gap between those who know and those who don't...Those who have and those who don't?

#### *Response*

People who come to the library have two possibilities; either to use the Internet or not to use the Internet. Library remains a space where we can find those two possibilities. It is important for librarians to play the role of a mediator either by providing access to information or by providing access to traditional or new technological tools. In either case the gap is often too wide between these two types of public. As mediators we can be useful in ensuring that the digital divide does not become wider. We can also use culture to reduce this inequality.

(Notes by Joy Ysaguirre (Belize))



## **SECTION 2**

### **WORKSHOPS**





# **Virtual Conferencing: Tools to Achieve Global Librarianship, Professional Development, Networking and Collaboration**

Vanessa D. Middleton<sup>1</sup> & Hope Kandel<sup>2</sup>

<sup>1</sup>Wayne State University, Detroit, MI, USA, <sup>2</sup>Library and Information Services, Learning Times, LLC, New York, NY, USA

Advanced telecommunications has revolutionized how individuals and organizations communicate, interact, and exchange ideas. Technology is increasingly becoming an integral element of providing library services. These advanced technologies are seamlessly integrated within library service provisions. However, the library profession has been slow to adapt advanced technologies such as virtual conferencing to advance the library profession as a whole. Virtual conferencing is not new, but it can revolutionize the advancement of the library profession. The global reach of our profession is limited by distance, cost, and time. Many opportunities to participate in professional development experiences are limited due to these factors. In addition, many local, state, and regional professional library associations often “reinvent the wheel” within their limited geographic space and time. However, the library profession has evolved and requires the constant exchange of new ideas, networking, and collaboration across regional and global boundaries.

I will share my personal experience of participating in a completely virtual/online conference. October 2003 marked the 1<sup>st</sup> Annual Learning Times Online Library Conference, endorsed by The Association of College and Research Libraries. I will discuss and demonstrate my conference presentation that focused on effectively integrating online library resources into course management software. I would like to promote the idea of developing virtual communities as a tool to exchange ideas, foster the development of collaborative projects, and professional development networking. Hope Kandel, a representative from Learning Times will discuss and demonstrate the technology required for virtual community development and virtual conferencing. Virtual conferencing and developing virtual learning communities can enhance communication, exchange of best practices, and significantly contribute to the advancement of the library profession.

## **Discussion**

The workshop started at 3.55 p.m. instead of 3.30 pm due to the fact that there was no electricity. It was therefore held in semi-darkness with only 20 participants as many persons left having waited for a while in the hope that power would return.

The power outage affected the presentation as Ms. Middleton had planned a Power Point presentation and Ms Hope Kandel who was not on site but who planned to do a virtual conference could not do the live link up.

Ms Middleton’s presentation was based primarily on a report done by OCLC entitled ‘Charting the future for libraries’ which looked at:-

1. Changes in staffing
2. Providing access 24/7 and the need for libraries to be more pro-active about e-learning.
3. Accommodating users – less focus to be placed on changing the behaviour of users.
4. Traditional versus non-traditional content
5. Preservation – not cost effective for each institution to digitize on its own. Need to collaborate and to develop standards for preserving the cultural heritage.
6. Increasing need for system support in an increasingly connected environment.

Ms. Middleton then went on to describe a virtual conferencing situation which she had facilitated and which followed the format of normal conferences which included a call for papers and registration etc.

1. *Ms. Williams of J.D. Selliers and Co.*

Some of the ideas coming out of the conference are difficult to implement because of the varying situations in each island.

What is the impact of the Patriot Act in view of the facilitator's suggestion that we should not influence user's needs?

*Response*

Each person should adapt suggestions to suit their needs. Also the American Library Association is opposed to the Patriot Act.

2. *Michelle Garcia – Ministry of Energy Library*

Was there a problem with connectivity at the online conference which Ms. Middleton had held and were there any other identifiable difficulties or weaknesses?

*Response*

The software, which had been used, was proprietary software which could adjust to accommodate the varying bandwidths. The main problems were re-engaging persons after the conference, and not everyone who registers would log in at the same time that the conference was in progress.

3. *Eric Baron – Ministry of Trade and Industry*

Enquired as to the rationale for the recording of local content on audiocassettes.

*Response*

It is still much easier to record interviews on audiocassettes out in the field and then transfer to digital format.

The presentation concluded at 4.45 pm but only a few participants were willing to complete the evaluation forms due to the poor lighting. They were then asked to return them the following day.

(Notes by Helen Johnson (Trinidad and Tobago))

## **Developing a Database Driven Library Web Site: An Introduction**

Frank Soodeen, Jr. & Allison C.B. Dolland

*The University of the West Indies, St. Augustine, Trinidad and Tobago*

The library of the new millennium faces the challenge of providing physical as well as virtual access to information resources. Many librarians may feel that creating dynamic, interactive websites for their libraries are out of their reach, financially and technically. This workshop will explore some of the cost effective options available to information professionals, wishing to harness current web-technology to create database-driven library portals. Participants will be shown that a web interface, using readily available off-the-shelf applications, can be developed with a minimum of technical expertise.

The importance of sound database design and the other critical issues will be stressed. Focus, however will be on the architecture of a database driven site. During the course of the workshop, participants will a taken step-by-step through the creation process. Some of the fundamentals that will be looked at will include client side applications, middleware applications such as Active Server Pages (ASP), PHP, and Cold Fusion, and backend databases. In addition, the web-to-database process (including setting up Database Source Names (DSNs), query design to accommodate the Web interface, and Standard Query Language (SQL) will be briefly explored.

At the end of the workshop, participants would have gained a basic knowledge of how a simple web interface can be developed using Cold Fusion middleware, in conjunction Structured Query Language (SQL), to query a Microsoft Access database.

## **Discussion**

1. Was there normalization when creating a database in order to eliminate repetition?

Mr. Soodeen responded in the affirmative and referred to Ms. Dolland's presentation which said that depending on the complexity the data is structured. He also gave an example: one may have a table that says Customers Products – a relationship is built by the way of numeric tags for linking a customer with a product, thereby eliminating repetition.

2. Could there be different individuals inputting data?

Mr. Soodeen responded yes.

3. Does a database have to be a web database?

Mr. Soodeen replied “no” and went on to explain that the database is put on the website to generate to users but one may have their internal database or intranet.

3. Could graphics be inputted on the database?

The presenter answered in the affirmative and said that one can do anything and he gave an example of his placing images on his website.

4. One participant enquired as to whether students had access to his website.

He responded that unless authentication is provided to the ISP then access is allowed.

5. Other participants enquired as to whether the software was expensive.

They were told that “Cold Fusion” the software that Mr. Soodeen uses was a trade off. It cost US \$700.00 but the fact that it was easy to use was probably why it was expensive. He also gave examples of other software, such as ASP, that were free.

(Notes by Gillian Thompson (Guyana))

## **SANITAS: The Health Web Directory In The Caribbean**

Carmen M. Santos-Corrada, Pedro A. Del Valle-López & Zaida García-Soto  
*Universidad de Puerto Rico, Puerto Rico*

To insure a healthy population is a major goal and a growing concern for those who make health decisions either individually or collectively in any country. Informed individuals are in a better position to make accurate decisions; and, in so doing, will contribute significantly to the continuous development of any particular community. Awareness of cultural differences will also improve understanding and decision-making. Sanitas: The Health Web Directory of the Caribbean is a joint project of ACURIL-UNICA-UNIVERSIA, and the UPR Medical Sciences Library, with the collaboration of other libraries in the Caribbean, focusing on the multilingual environment and cultural diversity of the region. It identifies information found in web sites devoted to health issues in each of the English, Spanish and French countries within the region, from the public as well as private sectors.

Attendees to the workshop will acquire the necessary skills to participate in the project. They will constitute the leaders/coordinators of each country for the project. They will be instructed on how to identify the basic elements to create a national health web directory in their particular country in the Caribbean region represented in ACURIL and UNICA. They will be committed to design their particular country web page and host it in an institutional server, which will facilitate its linkage to SANITAS.

SANITAS has the technological support of UNIVERSIA, an educational portal from the private sector devoted to academia. Instructions will be given on how to coordinate the participation in his/her country - to identify, select and incorporate information from both government and private sectors. And finally, to know how to input information into SANITAS.

The workshop will describe the policies and procedures for the project, and particularly, the subject headings structure. For the English language version, the main topics in the hierarchical structure of the Directory correspond to the National Library of Medicine (NLM) Medical Subjects Headings (Mesh).

For the Spanish and French version, the official Mesh translations, BIREME Descriptores en Ciencias de la Salud (DeCS), and the Inserm Le Mesh, respectively.

## **Discussion**

1. What is SANITAS, its features and how it works?

### *Response*

University of Puerto Rico provides personnel to create and maintain the project. Support from includes hosting the page, technical and graphic arts assistance. The SANITAS page is developed using the most basic technology available - using any browser, no FLASH, JAVA, etc. SANITAS is like a YAHOO for health in the Caribbean.

It was explained how librarians from other countries can join the SANITAS effort, create their own web pages through the use of templates (in Front Page), and add links to resources that are appropriate and useful for their own population, considering language, culture and other factors. Phase II will begin in July 2004 with the addition of Dominican Republic participants, as well as the countries mentioned above. Eventually SANITAS will include the countries of the Caribbean, will be in four languages (English, Spanish, French and Dutch). Any commercial pages to be included will be evaluated. At present any material to be added will be forwarded to Puerto Rico and then forwarded to UNIVERSIAS to be added to the page.

Many more details were presented, but anyone wishing information may contact:

sanitaswebmasters@universia.pr.

Website: <http://www.universia.pr/sanitas>

Suggestion by Carol Yates (T&T), that the national flag be included as an identifier for each participating country.

There was general discussion to clarify points and express interest in the project.

(Notes by Rey Eloise Smith (Puerto Rico))

## **Digital Library of the Caribbean: A Working Group - A Model of Success<sup>1</sup>, Introduction and Governance<sup>2</sup>, Technical Implementation<sup>3</sup>**

Judith Rogers<sup>1</sup>, Catherine Marsicek<sup>2</sup> & Erich Kesse<sup>3</sup>

<sup>1</sup>University of the Virgin Islands, St. Croix, US Virgin Islands <sup>2</sup>Florida International University Libraries, FL, USA, <sup>3</sup>University of Florida, FL, USA

There will be a discussion of the potential for a Digital Library of the Caribbean (dLOC). The dLOC is envisioned as a cooperative digital library among partners within the Caribbean and circum-Caribbean that will provide electronic access to cultural, historical and research materials held in archives, private collections and libraries. This Working Group will consist of 2 presentations that will present a successful case study of one such collaborative venture and will introduce the dLOC and discuss governance issues. A short introduction of the technical framework will follow. The presenters will then lead a discussion with the audience that will survey current digital projects in the Caribbean and gauge interest in this collaborative dLOC.

This Digital Library of the Caribbean: A Working Group is the first step to bring all players around the Caribbean together to discuss issues, concerns, possibilities and to work together to build a collaborative project. The organizers of this Working Group will target representatives from most major libraries and organizations from around the Caribbean to invite their attendance (while also leaving participation open to all) in hopes of actively moving this project forward.

## **Discussion**

Judith Rogers stated that great potential exists for a digital library of the Caribbean as expertise exists in the region that can be shared. She discussed the details of a project now underway in cooperation with the University of Florida.

Cathy Marsicek presented a proposal for a cooperative digital library among partners in the Caribbean and the circum-Caribbean. This digital library will provide users with access to cultural, historical and research materials held in archives, libraries and private collections. It is envisioned that partners will either contribute digital content to a centralized repository or make their digital collections available to the Digital Library of the Caribbean through compliance with OAI. Cathy discussed a possible organizational structure for the project and asked for an expression of support from the group. The Digital Library will be a collaboration and partnership among libraries in the region. By using centralized technology, decentralized digitalization and distributed collection development, individual libraries would retain ownership of the collections, yet provide access to collections and gain access to additional resources. Responsibilities for a Planning Committee were discussed. Several libraries present expressed interest in participating on the Planning Committee.

Erich Kesse discussed existing and past projects among libraries in the Caribbean and proposed several possible workflow models and technical requirements.

Those attending the workshop were very interested and enthusiastic about the possibilities of a digital library of the Caribbean and commented on the importance of such an effort. There was tremendous support expressed by participants. Current projects including cooperative projects were discussed.

(Notes by Barry Baker (USA))

## **New Rules for Cataloging Internet Resources: The 2002 AACR2 and MARC21 Revisions and How They Have Affected Electronic Resource Cataloging**

Steven Shadle

*University of Washington, Seattle, WA, USA*

This workshop will provide an overview of recent changes in the Anglo-American Cataloging Rules (AACR2) that affect the cataloging of online resources. Mr. Shadle will discuss new concepts (continuing resources, integrating resources, integrating entry, type of issuance) and revised definitions (serials, monographs) that have been introduced with the 2002 Revision. Mr. Shadle will also present the significant changes to Chapter 9 (Electronic Resources) and Chapter 12 (Continuing Resources), which affect the bibliographic description of online resources. Examples of continuing resources (electronic serials, databases, websites) will illustrate the cataloging of resources using these new rules and common problems in cataloging these resources will be discussed. Recently developed practices (in addition to AACR2) in this area will also be presented including Library of Congress Rule Interpretations written to assist the electronic resource cataloger and CONSER's recently developed 'aggregator-neutral' practice for cataloging electronic serials. Funds in support of this presentation were made possible, in part, by the American Library Association International Relations Committee and the North American Serials Interest Group (NASIG).

## **Discussion**

Mr. Shadle gave a comprehensive and interesting presentation. It looked at the recent changes made to the AACR2 and MARC21 as they applied to cataloguing serials, integrated and electronic resources. He used very clear and relevant illustrations to compare the former practices and the new ones. He was also able to explain the rationale/thinking behind these changes made, as well as give some insight into the future trends. In this way he provided a holistic picture of the area for his audience.

Ms. Gladys Lopez from the University of Puerto Rico was the sole questioner during the session. She asked about the use of dates in the fixed field elements for the MARC record for cataloguing electronic resources where the copyright date constantly changes and /or the begin date is unknown. Mr. Shadle responded by saying that the earliest known copyright date is used in those cases. Other persons however approached him after the session to enquire about training programmes available. Mr. Shadle's practical and informative presentation may be viewed at:

<http://faculty.washington.edu/shadle/shadle-acuril-thursday.ppt>

(Notes by Beverley A. Wood (Barbados))

## **Developing genealogy workshops: a primer for librarians in the Caribbean**

Ava L. Barrett

*Broward County African American Research Library and Cultural Center, Fort Lauderdale, FL, USA*

The topic of Genealogy is a hot one in the Caribbean and the world. Everywhere there is an interest in finding roots. As a result, publications are appearing constantly, purporting to provide the information needed for satisfying the hunger of family researchers. Formats such as chat, mailing lists, electronic newsletters, and newsgroups are mushrooming daily, and more and more frequently, librarians are faced with requests for assistance in genealogical research.

In the Caribbean, this type of research is very difficult. In most of the islands, governments are grappling with severe financial troubles, and have little justification for spending money on microfilming and archiving, while unable to help citizens meet basic human needs such as hospital care. Additionally, in many cases, the records in the islands are disorganized and may be locked away and inaccessible to the public. Also, because most islands changed hands several times over the years, research involves the governments of different countries. Violent hurricanes, volcanoes and earthquake damages, also cause records to be sometimes waterlogged, partially or completely destroyed, or missing. These conditions do not deter genealogists, however, and librarians in the islands must find a way to respond positively to the enquiries of the se patrons.

In the United States, many libraries realize that they can be help to patrons by offering classes in genealogy research. The Broward County, Florida, African American Research Library (AARLCC), which serves many Caribbean nationals in Southern Florida, is one such library that has develop ongoing Genealogy classes for its patrons. Through the classes, various how to approaches for researching family history are introduced. This includes not only identifying sources in and out of the library, but also locating appropriate sites on the web, and determining the usefulness and reliability of each.

In the workshop, the presenter, who developed the classes for AARLCC, will seek to provide attendees with hands-on training in developing workshops of their own, specifically for a Caribbean population. Topics covered include the following, among others:

How to begin a genealogy search

Identifying difficulties generally and specifically for the Caribbean

Differentiating offline and online needs

Helpful forms and procedures

Primary and secondary sources, off and on-line

Identifying forms of electronic genealogical data

Identifying and assessing potential, Caribbean, genealogy sites

Selecting software for developing family trees

The role of on-line library catalogs

Handouts will include:

Sample forms

Bibliographies

Hard copy of the entire presentation

The primary presentation tool will be Microsoft Power Point.

## **How are publishers thinking of future pricing models? The perspective of a society publisher**

Maria Lopes

*Blackwell Publishing, Malden, MA, USA*

As libraries move from paper subscriptions to online access the publisher is finding that their traditional subscription business model also has to develop and change. These changes, while offering new opportunities, can also be a threat to the publisher and a challenge to libraries dealing with flat or shrinking budgets. This presentation will address the challenges now presented to traditional publishers in this fast-changing, online-arena and will examine how the new challenges of the online environment can be turned into opportunities both for the publisher, society and the consumer alike.

The presentation will also examine how the traditional annual subscription fee model is being replaced by more sophisticated pricing model negotiations, and how the battle for readership ensues after each sale is made as usage data becomes the true deciding factor of whether a journal is renewed or cancelled. Examples of future pricing models will be outlined and audience feedback on these models as they apply to Caribbean libraries will be encouraged. The presentation will facilitate interaction and creative thinking about pricing models of the future by posing questions important to the publisher, librarian and user to the audience for discussion following the presentation.

### **Discussion**

How are publishers thinking of future pricing models? The perspective of a Society publisher?

#### *Response*

The presenter, Maria Lopes introduced herself to the audience, explaining in the process that she was a very recent addition to Blackwell's staff, having previously been an employee of Swets.

Lopes in noting the small audience of six persons announced that she was turning the session into an interactive one and this made for a lively discussion on the kind of behaviours displayed by publishers towards Caribbean institutions. Ms. Lopes said that one of the initiatives pursued by Blackwell's over the years has been that of inviting its clients to its LAB meetings. This intervention generated some discussion as Ms. Lopes was asked when last was the University of the West Indies invited to such a meeting. She said, "not recently". It was then suggested that this needed to be rectified urgently since the concerns of the university need to be raised in such forums.

The discussion then focused on the kind of bureaucratic hic-ups which plague institutions in their dealings with most publishers. Those assembled spoke of the loss of service suffered because of the inability of the local institutions to meet the subscription renewal deadlines. It was suggested that the institutions concerned need to be proactive in such a matter by alerting their respective accounting departments of the renewal date some six to twelve months in advance to enable the paper work to be completed in a timely manner.

Included in the audience was a representative from Chemistry Abstracts and he supported the comments of the audience. He told of his many personal interventions to avoid his clients from losing access to their service. To this end, he called for much dialogue between the regional representative and the local institutions so that the representative can intervene in those situations where loss of service is threatened due to the non-arrival of the money prior to the expiry date.

A suggestion was offered that there needed to be a Caribbean consortium to deal with issues of pricing.



Responding to the question re the levelling-off of sales, Lopes said that she has not experienced such and that it depends on the region involved. For instance, she noted that Australia requires nothing in print hence there is a high demand there.

(Notes by Carlyle Best (Barbados))

## **So You're the New Technology Trainer: Now What?**

Robert Hulshof-Schmidt

*Southeastern Library Network (SOLINET), Atlanta, GA, USA*

This workshop is designed to provide staff trainers and new bibliographic instruction librarians with practical tips for presenting technical training. Areas of focus include: designing training, determining content and length of training, types of learning, and the advantages and disadvantages of various media used to present training.

### **Discussion**

The workshop addressed the reality of how often a tech savvy person becomes a trainer by default and in so doing, addresses the necessary steps one should take if and whenever they are propelled into this role.

First, the concept of the 'accidental trainer' was introduced: someone who would become a trainer because they may be more familiar with, or comfortable with technology, i.e. the 'accidental trainer', or the person who would be a trainer in technology by virtue of the fact of his knowledge, certification or experience in technology, but not as a trainer. The necessary guidelines to become an effective trainer were profiled.

Before any training is to be carried out, it is important to outline the design: this is called the design process:

The design process includes: needs assessment; learning objectives; content development i.e. materials and methods, environmental concerns, delivery; and evaluation.

- Under needs assessment, guidelines and requirements for training the trainer were then outlined: These included identifying the training need. The training need is the gap between the desired performance and actual performance
- For learning objectives, the SMART approach was outlined: Specific, Measurable, Action oriented, Realistic & relevant and Timed objectives are important for effective learning outcomes. Three to five identified learning objectives make for ideal outcomes.
- Content development: It is important to brainstorm and discuss ideas to develop concepts. The 'napkin approach' was suggested to be useful in developing ideas. This approach developed during luncheons when ideas were discussed and fleshed out on napkins. It translated well for developing ideas. These ideas are then further organized... media methods and environmental concerns are also considerations in content design.
- Evaluation: Key methods of evaluation that can take place before, during and after the training include observation, pre-test and post test, exercise, questions, informal feedback, questionnaires, surveys and reports.

Secondly, the concept of retention rates was introduced. Retention rates vary with the media used and in considering the design of the training methods they must be taken into consideration. Generally, persons remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 70% of what they talk over with others, 80% of what can practically be used in real life and 95% of what is taught to someone else. Often the attention span of an individual is 20 minutes for any one topic.

Thirdly, there are three learning styles *visual*, seeing; *auditory*, hearing, and *kinesthetic*, seeing. Bearing in mind learning styles, as a trainer, one should also consider types of learning, these would include how people acquire knowledge, to develop understanding, develop skills, change attitudes and instil values. Adults tend to learn in a participative and collaborative environment where the

objectives are based on experience. Adults expect information imparted to be immediately useful and as such trainers should be well prepared but succinct with information so trainees can decide for themselves what is important. To this end presentation methods whether presentation software (PowerPoint), online demo or hands-on exercises, should be geared to the audience.

The Presentation ended with six important maxims of effective training:

1. Tune into station WIIFM, i.e. What's in it for me?
2. Learning is directly proportional to the amount of fun you have
3. People learn better in groups
4. Allow enough time before, during and after a presentation to take advantage of technology hitches, interaction and questions.
5. What they hear, they forget; what they see, they remember; what they do, they understand... and remember even longer
6. No learning has occurred until behaviour has changed.

The session was well attended and very interactive, and person expressed appreciation for the information disseminated.

(Notes by Tamara Brathwaite (Trinidad and Tobago))

## **The Caribbean Digital Library: a co-operative approach to digital content creation and management**

Sandra John

*Caribbean Documentation Centre, United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), Trinidad & Tobago*

### ***The workshop will consist of:***

- 1) An explanation of the rationale behind the establishment of the CDL
- 2) A demonstration of the CDL, specifically, data entry and searching
- 3) A discussion of the pros and cons of the co-operative approach.

### **Discussion**

The workshop entitled *The Caribbean Digital Library: A Cooperative Approach to Content Creation and Management* consisted of two presentations. The first, by Ms. Sandra John, provided the background and goals of the project, while the second, by Ms. Martiza Hee Houn, provided an assessment and recommendations.

Ms. John began her presentation by explaining the background of the Caribbean Digital Library (CDL) <[www.http://webopac.eclacpos.org/](http://webopac.eclacpos.org/)>. The CDL, a project of the Caribbean Documentation Center of UNECLAC, is a cooperative, database-driven electronic resource that provides links to Caribbean websites and resources. It was conceived out of necessity because of the insufficient substantive Caribbean content on the Web and the difficulty in locating much of this content. ECLAC called a meeting of information specialists in May 2000 to discuss options for creating a digital library.

The vision of the CDL is "to partner with other stakeholders to become an authoritative, web-based gateway to substantive planning information for the Caribbean." It consists of over 900 links to Caribbean full-text documents. It features decentralized, web-based entry so all partners can add links. The CDL focuses on current information with broad subject coverage from publications throughout the Caribbean.

Although the CDL relies on partners to contribute to the database, ECLAC supplies most of the links to resources with its limited personnel. Ms. John stressed the need for wider participation and for more sustained promotion.

The current challenges facing the CDL include the following: the configuration of the CDL for rapid growth, how to encourage participation, best practices for promotion, technical issues, and how to create enthusiasm for the project.

Ms. John then gave the floor to Mrs. Maritza Hee HOUNG, a consultant hired by ECLAC to assess the present state of the CDL and to offer recommendation for its future growth. Mrs. Hee HOUNG provided a very thorough assessment of the use of the CD, the management structure and the technical backbone. Through interviews with users, she determined that the CDL is an excellent initiative that is being used throughout the region. Her thorough assessment also yielded several recommendations for increased enhancement and growth.

A summary of Mrs. Hee HOUNG's suggestions follows:

- Develop a management structure that ensures accountability of commitment and that is not based on voluntary participation
- Enhance the technical development, including mirroring the site
- Expand the subject and geographic coverage
- Provide criteria and guidelines for entering data
- Facilitate discussion with users
- Promote and market the CDL

The question and answer period that followed the two presentations elicited several additional suggestions from the audience, including: checking the integrity of the links; expanding language coverage to include more Spanish, French and Dutch titles; the addition of Libraries as a subject; and creating the ability to search within a subject. In general, the audience was very supportive and appreciative of the project and wishes to see it expanded and developed.

(Notes by Catherine Marsicek (USA))

## **"Cómo buscar información biomédica y acerca de la salud para el consumidor en MEDLINE y MEDLINE plus"**

Efraín Flores-Rivera & Francisca Corrada Del Río

*Universidad de Puerto Rico, Puerto Rico*

Este taller presentará los avances más recientes en los sistemas de información gratuitos en Internet creados por la Biblioteca Nacional de Medicina de los Estados Unidos (NLM) para realizar investigaciones sobre temas biomédicos y salud para el consumidor. Este taller se enfocará en cómo realizar búsquedas en MEDLINE vía PubMed y MEDLINEplus. PubMed provee acceso a más de 11 millones de referencias bibliográficas, principalmente referencias a artículos publicados en revistas. PubMed también contiene conexiones a versiones de texto completo disponibles en páginas de Internet publicados por casas editoriales selectas. Los temas cubiertos incluirán: funciones de búsqueda básicas, seguir las conexiones a textos completos cuando estén disponibles y técnicas para delimitar búsquedas. También se describirán los sistemas auxiliares disponibles a través de Internet, en español, que proveen ayuda en el desarrollo de una búsqueda de PubMed.

También se examinará MEDLINEplus, página de Internet de la Biblioteca Nacional de Medicina acerca de salud para pacientes y consumidores. MEDLINEplus ofrece acceso a información provista por varias agencias de salud de los EE. UU. y también por sociedades reconocidas profesionales y no lucrativas, con contenido en español o en inglés. Los recursos disponibles en esta página de Internet incluyen información sobre más de 400 temas de salud, directorios de Internet en doctores en los EE.UU. y otros proveedores de salud, diccionarios médicos, e información sobre medicamentos.

Los participantes tendrán la oportunidad de realizar prácticas con ambas bases de datos. El taller se impartirá en español.

## **Discussion**

Los objetivos principales de la presentación fueron los siguientes:

1. Describir el contenido de las bases de datos MEDLINE y MEDLINE Plus.
2. Realizar búsquedas de información in PubMed/MEDLINE, limitándolas por: idioma, tipo de publicación, fecha, etc.
3. Búsqueda de información acerca de la salud para el consumidor en MEDLINE Plus.

## **Qué es PubMed?**

PubMed es un sistema de búsqueda en la Internet que provee acceso gratuito a MEDLINE, el principal banco de datos biomédicos de la Biblioteca Nacional de Medicina de los Estados Unidos (NLM, por sus siglas en ingles). MEDLINE ofrece referencias bibliográficas y resúmenes de artículos publicados a partir de 1966 en más de 4,600 revistas de los E.U. y otros países. Incluye revistas en inglés, español y otros idiomas (el resumen siempre aparece en ingles).

La dirección electrónica para conectarse a Pubmed es <http://pubmed.gov>

También, puede conectarse a través de la página electrónica de la Biblioteca de RCM UPR: <http://rcm-library.rcm.upr.edu> . Luego oprima el enlace NLM Pubmed. La ventaja de utilizar el enlace de la Biblioteca de Ciencias médicas es que el usuario puede identificar si la referencia bibliográfica se encuentra disponible en la biblioteca y esto facilita el préstamo interbibliotecario. La Dra. Luisa Vigo recomendó que las República Dominicana debe participar en incluir sus revistas en MEDLINE. La Sra. Lucero Arboleda mencionó que las exigencias son muchas para que las revistas finalmente puedan ser incluidas en esa base de datos.

## **Búsquedas**

Se presentaron ejemplos impresos sobre la búsqueda por palabra clave. Es necesario hacer la búsqueda en inglés, y se deben escribir una o mas palabras claves del tema que desea buscar. Luego debe imprimir el botón **GO** que está junto al area de búsqueda. La Sra Lucero Arboleda mencionó que la Biblioteca Regional de Medicina tiene un enlace que traduce del idioma español al inglés (Bireme).

Los participantes observaron las diferentes pantallas de búsqueda disponible en las hojas informativas que ellos repartieron de su presentación en Power Point. Se mencionó la importancia de utilizar los operadores booleanos AND,OR, y NOT en letras mayúsculas. Ejemplos:

1. breast cancer AND hormone replacement therapy: busca artículos que tratan sobre cáncer del seno y terapia hormonal
2. hormone replacement therapy OR alternative medicine: Busca los artículos que tratan sobre terapia hormonal, artículos sobre terapias alterantivas; y aquellos que combinan ambos temas.
3. Breast Cancer NOT hormone replacement therapy- busca los articulos que tratan sobre cáncer del seno, excluyendo aquellos que tartan de terapia hormonal y cáncer del seno.

PubMed procesa los operadores booleanos de izquierda a derecha. Para alterar ese orden, encierre entre paréntesis los conceptos que desee buscar como una unidad. Ejemplo: breast cancer AND (hormone replacement therapy OR alternative medicine).

Para limitar la búsqueda en Limits, esta opción se encuentra debajo del área de búsqueda a mano izquierda. Seleccione las restricciones que desea aplicar a la búsqueda. Puede especificar el tipo de publicación o estudio, el idioma, la fecha de publicación, la edad de los sujetos, etc. Limitar es importante para obtener resultados más certeros. Los resultados presentan las referencias bibliográficas. Si la referencia es traducida, el título es incluido bajo corchete. Si presenta un dibujo de una hoja en blanco significa que la referencia no incluye el resumen.

Al hacer la búsqueda, PubMed presenta inicialmente las referencias bibliográficas de los artículos. Este formato se conoce como Summary. Para leer el resumen, seleccione Abstract en el menu y oprima Display. El 76% de las referencias incluyen el resumen. Las revistas que se reciben en la Biblioteca se identifican por medio de un logotipo color verde claro que lee UPR-MSD Library Holding. Las revistas que están disponibles a texto completo en formato electrónico se identifican con un logotipo azul claro que lee UPR-MSD Online – Full Text. Para encontrar los artículos en texto completo libre de costo,

escriba despues de la búsqueda: ANDS free full text [sb]. Se puede hacer también la búsqueda utilizando el vocabulario controlado de la Biblioteca Nacional de Medicina de los Estados Unidos Medical Subject Hadings (MeSH). Después de seleccionar los articulos que desee, usted puede imprimir, grabar en un disco o enviar por e-mail los resultados obtenidos.

La Sra. Lucero Arboleda mencionó que a través de unos acuerdos donde se puede acceder a 2,000 títulos de revistas electrónicas (HINARI) de Santo Domingo. También se puede utilizar el servicio SCielo donde se accede revistas electrónicas gratuitas.

MEDLINE Plus es un sitio en Internet creado para los consumidores por la Biblioteca Nacional de Medicina de los EU. Puede encontrar información gratuita de fuentes fidedignas en inglés y español. Las Fuentes incluidas en esta base de datos han sido seleccionada cuidadosamente. Usted puede tener la seguridad de recibir información confiable y útil. Se encontrará con temas de salud, medicamentos, Enciclopedia Médica, tutoriales interactivos, noticias y otros.

En las búsquedas no es necesario utilizar acentos ni la tilde de la letra ñ. Se permiten los operadores booleanos: AND, OR y NOT. Para conectarse favor de utilizar la siguiente dirección electrónica: <http://medlineplus.gov/esp/>

Algunos criterios para evaluar páginas web son: autoría, actualidad, calidad entre otros. Favor conectarse a la siguiente dirección electrónica <http://www.ub.es/forum/conferencias/evalua.htm>

Otros recursos de interés:

Organización Panamericana de la Salud <http://www.paho.org/default.spa.htm>

Organización Mundial de la Salud <http://www.wjp/omt/es/index.html>

MLANET [http://mlanet.org/resources/medspead/spanishmedspeaka\\_d.html](http://mlanet.org/resources/medspead/spanishmedspeaka_d.html)

Cancer <http://www.cancer.gov/espanol/>

CDC <http://www.cdc.gov/spanish/default.htm>

AIDSINFO [http://aidsinfo.nih.gov/other/links\\_sp.asp](http://aidsinfo.nih.gov/other/links_sp.asp)

Los institutos Nacionales de la Salud <http://salud.nih.gov>

FirstGov en español <http://www.firstgov.gov/Espanol/Topics/Salud.shtml>

RecallsGov <http://www.recalls.gov/spanish.html>

Healthfinder <http://www.healthfinder.gov/espanol/>

Lamentablemente no hubo oportunidad de practicar a través del Web por falta de electricidad.

Al finalizar la presentación, solo se presentó una resolución por la Dra. Luisa Vigo. Ella presentó una moción de que se debe continuar con el ofrecimiento de estos talleres de Medicina para permitir crear la Mesa redonda de Ciencias de la Salud y que se continúen ofreciendo temas de interés común.

(Notes by Liz M. Pagán (Puerto Rico))

## **SECTION 3**

### **POSTERS**



## **Educating and Training Students from the Caribbean Community: The Simmons Experience**

Em Claire Knowles

*Simmons Graduate School of Library and Information Science, Boston, MA, USA*

This poster session focuses on the education and training of students from the Caribbean at the Simmons Graduate School of Library and Information Science, particularly in the area of information technology. This session shows historical background on Simmons' international experience during the earlier years of the twentieth century. The library and information studies program at Simmons College was founded in 1906. It was the sixth library school founded in the nation. The purpose at that time was to educate and train librarians on the basics of organization, bibliography, and library administration. Currently, the evolving curriculum provides training in the latest technical developments to be employed in the workplace. This education has provided great impetus to a number of students to make changes in libraries in the state of Massachusetts, the United States, and abroad. We take great pride in having trained Josefina del Toro, 1925, who was the first woman director of the University Library, University of Puerto Rico, and founder of the Graduate School of Library Science at the University, and Dr. Dorothy Collings, 1933, Professor and first head of Library and Information Studies at the University of West Indies in Jamaica. Our training will further advance the education of more recent students from Trinidad and Tobago sponsored by the National Library and Information Systems Authority (NALIS), and other graduates from the Caribbean community.

## **Accessibility of Compact Discs in the Mona Libraries**

Maureen Kerr- Campbell & Janet McCallum

*The University of the West Indies, Mona, Jamaica*

The University of the West Indies Mona Campus Libraries boast a small, but steadily growing collection of compact discs that complement the predominant print collection, our electronic databases and journals. Our compact disc collection was examined recently as it was felt that it was not easily accessible by students and staff. Prior to this investigation, compact discs are bar-coded and loaned to students or staff to view at home, or some other convenient place.

However, demands by students and Faculty members forced us to examine our present policy. The compact discs in the Science Library were examined. It was observed that this information resource fell into three categories, namely:

Those that accompany books located in the Reserve Book Collection

Those that stand alone and,

Those that accompany books on the shelves

It was also observed that some of the compact discs could be inserted into the compact disc drive and read. Others could not be read, as they required the installation of special software on the computer before they could be accessed.

In order to alleviate the present problem, it was agreed that compact disc workstations would be set up in designated areas of the libraries. Here, students and staff would be able to view the compact discs. The Reference Librarians when necessary would provide assistance. Headphones were also acquired to complement the collection. It was also suggested that the contents of the stand-alone compact discs be evaluated and a decision taken as to their usefulness/relevance to the current academic curricula.



## **Le Pavillon Bougenot, Double Labellisation Pour Un Service Public A Contenu Multiple: E.C.M./Centre de Ressources Cyberbase"**

Christiane Monchaty<sup>1</sup> & Anique Sylvestre<sup>2</sup>

<sup>1</sup>DRAC- *Regional Authority for Cultural Affairs (Ministry of Culture and Communications)*, <sup>2</sup>*Conseil Général de la Martinique, Martinique*

Dans la recherche plus poussée de résorber la fracture numérique, le gouvernement français a mis en place des initiatives transversales qui mettent en synergie des compétences pour des objectifs conjugués.

Ainsi, c'est dans ce cadre que le Ministère de la Culture et la Caisse de Dépôts et Consignations ont signé en 2002 une convention afin d'unir leurs moyens concourant au développement de la culture numérique.

Le projet de "Espace Public Numérique" réalisé par le Conseil Général de la Martinique au Pavillon Bougenot, annexe de la Bibliothèque Schoelcher, à Fort-de-France s'inscrit dans ce dispositif.

A l'origine, une double volonté: celle de faire évoluer définitivement la Bibliothèque Schoelcher vers le numérique, et celle de donner toute leur place et tout leur rôle à des services qui existent de façon embryonnaire, de décongestionner des collections et des personnels trop à l'étroit.

Les services Presse et Documentation, Multimedia et Bibliothèque Sonore sont désignés pour être abrités dans un espace nouveau (le Pavillon Bougenot, situé dans l'actuel périmètre de la Bibliothèque Schoelcher).

Le dossier "Espace Public Numérique" du Pavillon Bougenot, pour sa réalisation, fait l'objet d'une demande d'approbation (pour le label ECM) et de subventionnement à la Direction Régionale aux Affaires Culturelles.

En cours de réalisation, un autre projet est venu se greffer et devient complémentaire, toujours à l'initiative du Conseil Général: la création d'un Centre de Ressources Cyberbase, interface avec 14 cyberbases situés dans des lieux culturels du territoire. Ce projet est soumis à subventionnement à La Caisse des Dépôts et Consignations qui agréé le projet (CDC: Ministère des Finances)

Les deux projets se jumellent pour devenir l'Espace Public Numérique, double labellisé ECM/Centre de Ressources Cyberbase du Département. Les deux organismes d'Etat (DRAC et CDC) conjuguent leurs volontés pour harmoniser les deux projets. Est créé l'Espace Public Numérique/ Centre de Ressources cyberbase du Pavillon Bougenot.

## **Public Libraries into Posterity: a Photo Essay on the Evolving Face of Public Libraries in Trinidad and Tobago**

Niala Dwarika-Bhagat

*The University of the West Indies, St. Augustine, Trinidad and Tobago*

A photo essay tells a story in a visual-verbal manner. To its viewers, it narrates and expresses ideas, thoughts and feelings in ways that text or the spoken word do not. A photo essay is, all at once, a synergy of art and technology, summary and specification observation and action. Public Libraries into Posterity: a Photo Essay on the Evolving face of Public Libraries in Trinidad and Tobago moves from being merely images with captions to a tangible record of an aspect of the architectural heritage of Trinidad and Tobago's public libraries.

The aims of this photographic presentation are to:

1. Represent the different architectural styles and accommodation of public library buildings in Trinidad and Tobago
2. Present the work as a part of a completed project in photo archiving
3. Inform and delight through visual-verbal narration

Data and image gathering will be conducted in Trinidad as well as Tobago and will focus solely on public libraries. Black and white photographs will be exhibited. While the photographs are intended to convey a sense of space, time and building style/accommodation, the entire project contributes to the process of documenting and archiving of Caribbean heritage materials for posterity and prosperity.

## **Modernización tecnológica de la Biblioteca de la Estación Experimental Agrícola**

Liz M. Pagán Santana  
*Universidad de Puerto Rico, Puerto Rico*

La Biblioteca de la Estación Experimental Agrícola está especialmente concebida y administrada para la investigación científica; es una unidad del Colegio de Ciencias Agrícolas del Recinto Universitario de Mayagüez de la Universidad de Puerto Rico. Sirve a la comunidad universitaria en general y en forma especial a los científicos que realizan investigaciones sobre las ciencias agrícolas. Esta Biblioteca comenzó operaciones en el año 1915 bajo la dirección del fitopatólogo Dr. John A. Stevenson. Debido a que esta entidad posee un valor incalculable, por los recursos y servicios que ofrece, se han iniciado formalmente unos acuerdos entre la Facultad de Ciencias Agrícolas y la Biblioteca General del Recinto Universitario de Mayagüez para mejorar los servicios tecnológicos que ofrece la Biblioteca. Se ha desarrollado el Proyecto C-503 *“Modernización Tecnológica de la Biblioteca Estación Experimental Agrícola”*, que comenzó formalmente en abril de 2003. Se acordó evaluar los recursos de la Colección, incorporándolos al catálogo público en línea, adiestrar al personal, y desarrollar la página electrónica (<http://www.uprm.edu/agricultura/biblioteca>), entre otros. De los servicios innovadores para esta unidad se destacan los siguientes: 1) uso del correo electrónico para consultas ([biblioteca\\_eea@cca.uprm.edu](mailto:biblioteca_eea@cca.uprm.edu)); 2) envío a los investigadores referencias bibliográficas digitalizadas, 3) solicitud de préstamos interbibliotecarios de forma electrónica, 4) orientación a los usuarios sobre nuevas adquisiciones y servicios a través del web, 5) utilización del área de instrucción al usuario que incluye computadoras (a instalarse) para consulta, y 6) orientación en el uso de las bases de datos y revistas electrónicas. Se espera recibir el mayor apoyo y participación de los profesionales en el campo de la agricultura para que este proyecto se pueda desarrollar al máximo y sea de beneficio para toda nuestra comunidad agrícola.

## **Faculty of Medical Sciences knowledge and use of electronic resources at the University of the West Indies, St. Augustine: a survey**

Shamin Renwick  
*The University of the West Indies, St. Augustine, Trinidad and Tobago*

*Objective:* To investigate faculty's awareness, knowledge and use of electronic resources at the Medical Sciences Library (MSL) and their need for training to use these resources.

*Design and Methods:* A survey of 153 full-time and part-time lecturers was conducted using a mail questionnaire. There were 29 questions covering demographic information; computer literacy, computer access and location; knowledge and use of electronic resources and training needs.

*Results:* Of the 70% who responded, 97% used computers and 79% had Internet access. There was a 73% daily computer use and 82% felt that their computer literacy level was average or beyond. However, MSL-specific resources like the library's catalogue had a 56% level of awareness, the MSL website, 51% and only 21% used the MSL's computers. The main use of e-resources was for communication purposes (86% of respondents). Of the respondents 73% recommended e-resources to students and 83% were self-taught. Sixty-three percent felt that a workshop with a hands-on component was the preferred format for training.

*Conclusions:* Overall there was high awareness of the resources made available by the MSL but low use of MSL-specific resources. The feeling was that e-resources were important and though there was high use and many felt that they were competent users, many still expressed a need for training.

## **SANITAS: Directorio Web de la Salud del Caribe**

Carmen M. Santos-Corrada, Pedro A. Del Valle-López & Zaida García-Soto

*Universidad de Puerto Rico, Puerto Rico*

Asegurarse una población sana ha de ser el principal objetivo y preocupación creciente para aquellos que toman decisiones en temas de salud ya sea a nivel individual o colectivo en cualquier país. Los individuos informados se encuentran en una mejor posición para tomar decisiones precisas y al hacerlo contribuirán en forma significativa al desarrollo continuo de cualquier comunidad en particular. La concientización acerca de las diferencias culturales también mejorará la comprensión y la toma de decisiones. Sanitas, el Directorio Web de la Salud del Caribe es un proyecto conjunto de ACURIL-UNICA-UNIVERSIA y la Biblioteca de Ciencias Médicas de la Universidad de Puerto Rico con la colaboración de otras bibliotecas del Caribe, cuyo énfasis está puesto en el entorno multilingüístico y la diversidad cultural de la región. Identifica y presenta la información encontrada en sitios web dedicados a temas de salud en cada uno de los países anglófonos, francófonos e hispanoparlantes de la región, tanto del sector público como del privado. La sesión de afiche presentará la meta, los objetivos, las prioridades y estrategias del proyecto, las entidades y profesionales participantes y los contenidos de la página web.

El afiche explicará la manera en la que se seleccionan los temas y se los representa en la página web y la capacidad de fácil uso de la misma. Para la versión en idioma inglés los temas principales de la estructura jerárquica del Directorio corresponden a la National Library of Medicine (NLM) Medical Subjects Headings (MeSH). Para las versiones en francés y en inglés, se utilizan las traducciones oficiales de los MeSH, Descriptores BIREME en Ciencias de la Salud (DeCS) e Inserm Le Mesh respectivamente.

## **Assistive Technology at the National Library of Trinidad and Tobago**

Janice Blake

*National Library and Information Systems Authority, Trinidad and Tobago*

Assistive technology refers to computer aids that enable persons who are differently able to perform everyday tasks at home, at school, at work, and at play. These technologies have levelled the playing field, and opened up many avenues of opportunity to provide people with disabilities a fighting chance for educational and career development, as well as full integration into society and the economy. These technologies cater to people with varying degrees of visual impairment - people who are hearing impaired or cannot use a mouse or keyboard. Technology solutions are also provided for persons who prefer not to use computers.

This presentation will highlight some of the technologies in use at the National Library. These are:

*JAWS for Windows (JFW) Screen Reader (Demo Available)*

A screen reader is a software program that uses synthetic speech technology to verbalize screen output for computer users who are visually impaired.

*Magic Screen Magnification Software (Demo Available)*

- Screen magnification software programs enlarge text and graphics that appear on a computer display for people with low vision.

*OCR Reading Systems Open Book.6.1 (Demo available)*

- Optical Character recognition (OCR) reading systems enable the user to scan and read printed materials.

## **Cambio Estructural en el Flujo del Conocimiento: La Comunicación Electrónica**

Martha Lilia Hernández García<sup>1</sup>, Ileana Melcón Hernández<sup>2</sup>, Alejandro Melcon Hernández<sup>3</sup>

<sup>1</sup>*Depto del Centro de Documentación, Clínica Central,* <sup>2</sup>*Instituto Superior Pedagógico,* <sup>3</sup>*Estudiante Universitario de Ciencias Informáticas, Cuba*

Se realiza un estudio sobre la estructura de la relación entre el flujo de información y el público al que va dirigido el conocimiento; cómo se ha modificado, con el decursar del tiempo como una función de las distintas técnicas que operan en la transferencia de información del generador al receptor. El flujo, como sucesión de eventos y procesos de mediación entre la generación de la información por una fuente emisora y su aceptación por la entidad receptora, conforma una de las bases conceptuales que se piensa que sea la esencia de la ciencia de la información: la generación de conocimientos en el individuo y en su espacio de convivencias. El objetivo de este artículo es demostrar que el flujo de la información que enlaza al generador y al receptora adiciona competencia en la transmisión en relación directa con las fases en que se ha desarrollado el proceso de transferencia de la información hasta llegar a la era de la comunicación electrónica, que viabiliza con mayor intensidad la relación de interacción que se interesa observar.



## **SECTION 4**

### **SPEECHES**



Feature Address by  
Senator Dr. The Honorable Lenny Saith  
*Minister of Public Administration and Information, Government of Trinidad and Tobago*  
at the Opening Ceremony

- Master of Ceremonies, Ms. Elmelinda Lara
- Mrs. Shamin Renwick, President of the Association of Caribbean University, Research and Institutional Libraries
- Prof. Bridget Brereton, Chairman, Board of Directors of the National Library and Information System Authority of Trinidad and Tobago
- Prof. Gurmohan Kochhar, Deputy Principal of The University of the West Indies, St. Augustine Campus
- Mrs. Ernesta Greenidge, President of the Library Association of Trinidad and Tobago
- Dr. Margaret Rouse-Jones, Campus Librarian of The University of the West Indies, St. Augustine Campus
- Members of the Diplomatic Corps
- Conference Participants
- Specially Invited Guests
- Members of the Media
- Distinguish Ladies and Gentlemen

I welcome the opportunity to address you at this opening ceremony of the Thirty-Fourth Annual Conference of the Association of Caribbean University, Research and Institutional Libraries. On behalf of the Government, I extend a warm welcome to all visitors to our country for the Conference. I do hope that your stay with us is both productive and enjoyable.

*Overview of Electronic Caribbean*

You have chosen a most important theme for this conference. Caribbean countries are at varying stages in the development of their electronic information resources. Some are more advanced than others, but it is a matter that has emphatically arrived on national and international agendas. In CARICOM, for example, there is now an annual meeting of Ministers responsible for Information Technology and the issues of this sector have already received the attention of the Conference of Heads of Government of the Caribbean Community.

*Hardware*

To a large extent, through individual, corporate and departmental initiative, Information Hardware is being deployed in both the Public and Private Sectors in the countries of the region. This has already produced improved levels of efficiency and productivity. But the extent and intensity of these efforts have also depended, in the main, on the degree of individual conviction. It has now been recognized that this alone will not suffice. For countries to reap the maximum benefits, the infusion of the technology into the economic, social and cultural systems should be done through coordinated



national plans driven by the governments themselves. It has also been understood that these plans must not spring from any generic formula, but must take into account the particular requirements of an individual country. I am pleased to say that, after assessment and consultation, we in Trinidad and Tobago now have our own such plan in fast forward. This Plan we believe comprehensive enough to be inclusive of all sectors of the society. We consider fast forward to be a major electronic information resource for our country.

#### *An Information Industry for the Caribbean*

The Caribbean must now move to the fullest possible development of the Information industry, which is already bringing significant benefits to countries worldwide. India, for example, now generates 12 billion US dollars annually in software exports to the development world. This is a direction that the Caribbean must explore. We need the human resource to do it and so extensive training in Information Technology skills is an urgent necessity.

The Government is committed to liberalizing the Telecommunications Sector with a view to encouraging investment and developing our information infrastructure. Such initiatives will most certainly result in economic diversification into the new information industries like Data Centres, Call Centres, Remote Data Entry, Help Desk Services, Software Development, and Technology Manufacturing. This must be supported by appropriate Broadband policies and investment incentives for the growth of a sector that could generate very significant employment and bring greater resilience to the economies of the Caribbean.

#### *E-Commerce for the Caribbean*

Another resource is the potential for the growth of e-commerce in the region. We have not even begun to develop this area in the majority of the Caribbean, whilst the developed world is already reaping huge benefits from this modern commercial phenomenon. Millions of people all over the world are now shopping on line and doing business through the Internet. This is increasing literally everyday. Additionally, e-commerce is encouraging the development of hundreds of thousands of new small businesses in the industrialized world as new entrepreneurs take advantage of inexpensive ways provided by the technology for marketing and selling their products and services both at home and abroad. E-Commerce gives our citizens the scope to develop the unique products of our Caribbean civilization and to place them on the global market. Location is no longer a disadvantage, once there is access to the Internet.

#### *Social Development for the Caribbean*

The opportunities for social development are also significant. The Caribbean must now pursue the modernization of our education systems through, inter alia, the employment of information and communication technology at all levels as well as in the network of libraries that serve the intellectual development of our societies. With computers and high-speed Internet access in all our schools, and with teachers appropriately trained, we can now have unprecedented access to information from our classrooms and improve both teaching and learning in the schools of our nations. Our libraries must become even greater sources of enlightenment, research and creative leisure. Electronic information resources must now transform our libraries, no matter how humble, into access centres to the archives of human literature and our cultural heritage. Beyond the school system, in adult education, we must make accessible, training and education at tertiary and other levels especially for those whose development path has become stunted either from lack of financial resources or lack of opportunity in our small societies.

### *Human Resource Development for the Region*

There is now the clear possibility of a quantum leap forward in the development of the human resource of the Caribbean. The technology has already proven its penetrative capacity in other parts of the world, to overcome infrastructural deficits and take education, training and opportunity to disadvantaged people and impoverished heartlands. This is an opportunity to transform Caribbean society. Some of the world's richest nations are poor in natural resources. They became industrialized giants, through enlightened policies, which focused on making their citizens educated, skilled, productive and capable of creating the sustainable wealth that have made them economic powerhouses with very significant international influence.

### *Reduction of Caribbean vulnerability*

The Caribbean can lessen its vulnerability and turn our smallness into an advantage by deploying our electronic information resources to empowering the individual at all levels of the society. It is the path to improve the viability of our countries in this fiercely competitive international environment. It is an environment which has already ruled out preferential market access as incompatible with a liberalized global trading system; an environment where multilateral trade talks have collapsed due to entrenched protectionism and where terrorism has accentuated the fragility of the tourist economy on which so many of the small island developing states of the Caribbean depend.

### *Conclusion*

These are just some of the ways to overcome the Digital Divide in our Caribbean societies. Awareness is the key. There is not yet a full awakening in our Caribbean societies to the vast possibilities for individual and collective development through the exploitation of our electronic information resources. We all need to spread the message through education and information dissemination and even more importantly through institutional and individual example. The ICT experience must become real, addictive and ultimately irreplaceable in the life of the user.

I am sure the Association of Caribbean Libraries is fully aware of its own share of this responsibility. This conference will undoubtedly make you even more successful in meeting your own obligations as well as in advancing the cause in all other sectors of Caribbean Society.

Participants, I am sure that your deliberations at this Conference will prove to be fruitful and to the visitors in our midst I hope that you enjoy your stay in Trinidad.

Thank you ladies and gentlemen.

Remarks by  
Mrs. Shamin Renwick  
*President, Association of Caribbean University, Research and Institutional  
Libraries (ACURIL), 2003-2004*  
at the Opening Ceremony

Thank you, Madame Chair

- Senator The Honourable Dr. Lenny Saith, Minister of Public Administration and Information
- Ministers of Government
- Your Excellencies, Members of the Diplomatic Corps
- Distinguished Past Presidents
- ACURIL Executive Council
- Members of ACURIL, participants
- Members of the media
- Ladies and gentlemen

Good Evening, Buenas noches, Bon soir

Why do we join an association?

A recent study in the United States suggested that: one major reason is networking. - Getting and sharing info. E.g. about best and worst practices, about vendors, about the movement of people within the profession.

A second reason for joining is to assist in making professional goals and to keep up-to-date with information in the field.

A third reason is to influence promotion or tenure as it is said that librarians who participate actively are more 'marketable,' more likely to be promoted, and more likely to succeed in their careers.

We also join to feel part of profession and to take part in activities. We join because we wish improve image and status of profession.

ACURIL with over 200 institutional, association and personal members fulfils this role and more. Our members come from all types of libraries in over 30 countries speaking 4 languages. Collaboration in ACURIL brings many benefits and different perspectives to networking.

ACURIL allows for promotion of library cooperation and for increased appreciation of other Caribbean countries and cultures. We have a golden opportunity to learn a new language or practice one that we may have learnt way back in school.

ACURIL also provides the opportunity for members to develop, to enhance and demonstrate leadership skills. We do this by serving as leaders in committees, chairing special interest groups, and serving on the Executive council. In working on projects with in the Association we can participate in research, in developing of standards, and in gathering of statistics.

The annual conference is our major continuing education activity. This is when we can to add to the body of professional literature by making presentations. We can support colleagues by

demonstrating skills when doing workshops. We can develop and demonstrate organisational skills in planning the event.

The conference also provides for meetings, informal discussions, developing relationships and, overall, forming of a Caribbean library community known for its warmth and hospitality.

The conference is held in a different Caribbean country every year. This allows attendance by the greatest numbers of persons, especially for those who cannot afford to attend International conferences.

We are celebrating our 35<sup>th</sup> Anniversary this year. We are here today to open the 34th annual conference. Two successful conferences were held here in Trinidad and Tobago in 1984 and 1992. I have no doubt that this one will be the same.

I invite you to attend as many sessions as possible. Relax and enjoy. Make the best out of your visit to our shores.

I extend a warm welcome to the presenters, the moderators and the rapporteurs who will deliver the academic programme and the 300+ participants who will be involved.

Sincerest thanks go to those who have worked hard on the programme, the logistics, the promotion and the social activities. Appreciation is extended to the sponsors and exhibitors. Thanks to the well-wishers who are here with us this evening.

Thank you. Merci. Gracias.

Remarks by  
Professor Gurmohan Kochhar  
*Deputy Campus Principal, The University of the West Indies, St. Augustine,  
Trinidad and Tobago*  
at the Opening Ceremony

On behalf of the St. Augustine Campus of the University of the West Indies, I welcome you to this important conference "Electronic Information Resources in the Caribbean: Trends and Issues" hosted by ACURIL. One of the strategic objectives of St. Augustine Campus is the strengthening of the information technology (IT) platform and towards this end development of the Campus IT infrastructure is an ongoing process.

The University of the West Indies, in general, and the St. Augustine Campus in particular, is cognizant of its role and position in the forefront of higher education in the region and accepts this responsibility for all developmental challenges that go with this role.

From the point of view of Campus Administration, the Campus Libraries, and the Campus Information Technology Services (CITS), are the critical departments.

The campus budgetary provision would strongly support this statement. Whereas in several U.S.A. universities library budgets are of the order of 4% of the overall university budget, our St. Augustine libraries enjoy a very privileged position with a budgetary provision of 10% of the campus budget. This is more than the provision for the Faculty of Social Sciences, the largest Faculty on this Campus.

The Library on its part has responded admirably and has made significant strides in the increased use of Information Technology in the delivery of its services and products. These include:

Remote access to the Library's Online Public  
Access Catalogue (OPAC) via the Internet.  
Establishment of The Information Centre (TIC)  
In 2000 which was considerably expanded and  
Upgraded to the St. Augustine Research and  
Reference Services (STARRS) and User  
Education Centre (UEC) in 2002.  
Digitization of examination papers and special collections.  
Increased acquisition of electronic resources to support teaching and research.

Within recent times with the support of Campus Information Technology Services, there have been several developments which continue to position the Campus in the forefront of the delivery of services using Information Technology. Of relevance to the Campus Libraries is: -

"the implementation of the Campus Pipeline Web Portal which provides all students with University e-mail accounts and direct access to all University online facilities inclusive of chat rooms with their lecturers and fellow students.

The implementation of a Wireless solution at the Main Library, Student Activity Centre and JFK Courtyard. The upgrading of the WEBCT server to satisfy the goal of increasing the number of online courses."

The University of the West Indies St. Augustine Campus Administration is pleased to be associated with the ACURIL Conference, and we wish you a most successful conference.

Remarks by  
Mrs. Ernesta Greenidge  
*President, Library Association of Trinidad and Tobago*  
at the Opening Ceremony

The annual conference of the Association of Caribbean University Research and Institutional Libraries (ACURIL) is indeed an important one on the professional calendar of regional Librarians. As President of the Library Association of Trinidad and Tobago (LATT) and on behalf of the Executive and the membership of the Association, it is my pleasure to bring you warm and sincere greetings on this the thirty-fourth Annual Conference of ACURIL. We extend an extra special greeting to those of you who are visiting Trinidad and Tobago or attending ACURIL for the first time.

One of the primary strategic objectives of LATT is the promotion of effective library and information services through the organization of meetings, lectures, and seminars. In furtherance of this mandate, we have embraced the challenge of hosting this annual conference. We have partnered with two of our major stakeholders, the National Library and Information System Authority (NALIS), and the Campus Libraries of The University of the West Indies, St. Augustine.

Since LATT is an Association of modest means, a significant portion of our contribution has been through the goodwill of the Association and voluntary service of our membership on Committees. The Library Association recognizes the intense effort that the Conference Coordinator and her Committees have made in order to ensure the efficient execution of this evening's proceedings as well as the activities of the coming week. We thank all our members and other volunteers for their consistent efforts.

As many of you are aware, ACURIL is one of the oldest and most viable Caribbean Organisations. Librarians have taken an early leadership role in fostering Caribbean Unity, bridging the language divide within the Caribbean. We are all proud to have been associated with ACURIL over these many years. Members of the Library fraternity in Trinidad and Tobago have held Executive Office in ACURIL, have represented the Library Association of Trinidad and Tobago at the level of the ACURIL Executive, and have chaired ACURIL Standing Committees and Special Interest Groups. I recognise a number of these colleagues in the audience. You will indulge me in especially greeting Dr Alma Jordan, Charter President of ACURIL and Mr. Esahack Mohammed, former President of the Library Association of Trinidad and Tobago and a former President of ACURIL.

Distinguished Ladies and Gentlemen, we are honoured that so many of you have joined us to share this opening ceremony and to welcome our visiting participants. Let me say as well how extremely pleased we are that the conference participants have chosen to come to Trinidad and Tobago and to take advantage of this opportunity to renew and extend the professional network of local, regional and international colleagues. I know that colleagues in NALIS, the University Libraries and other special libraries look forward to your visits during the week.

Our ACURIL President, Mrs Shamin Renwick and her Programme Committee have chosen to explore trends and issues regarding Electronic Information Resources in the Caribbean. This is an exciting and highly relevant area for discourse and exploration. We anticipate stimulating deliberations so that participants may come away from the Conference with new ideas and expanded knowledge. We anticipate, as well, that you will come away with pleasant memories, just as so many of you did when you joined us here for previous ACURIL conferences. As you would recall we hosted two previous conferences in 1984 and in 1992. You would permit me to extend a special greeting to Mrs. Blanca Hodge of St. Marteen who presided over the 1992 Conference. Welcome again Blanca.

Ladies and Gentlemen, these formal greetings I bring are just a symbol. They are symbolic of all the greetings that have been shared since our delegates, exhibitors, presenters, friends and colleagues started to arrive over the past few days. Greetings that have needed no invitation since ACURIL

Conferences always exemplify outpourings of welcome, and recognition, rekindling of old memories and creation of new experiences.

The true greetings have been shared in the hugs and the warm smiles, The Holas, the Como te va, the Bonjours , the oh ha dit the Buenas, that will become part of our lingua franca over these next few days. The true greetings have been shared in the ACURIL kisses, on one cheek or two (as in the French style), or on three, (as in the Dutch style) - Begin with your right cheek and alternate right, left, right, for a total of three kisses, And I know that during the week these symbolic greetings will resonate as we continue to meet old and new friends. And I know that for those of you who have chosen to visit our beautiful Tobago, you will receive wonderful greetings there as well in true Tobago style.

In closing, let me say ladies and gentlemen that it has indeed been my pleasure to bring you warm and sincere greetings on behalf of the Executive and Membership of the Library Association of Trinidad and Tobago, and in fact on behalf of all the persons who have worked to ensure the success of this thirty-fourth Annual Conference of the ACURIL - the Association of Caribbean University Research and Institutional Libraries.

*Thank you.*

Vote of Thanks by  
Dr. Margaret Rouse-Jones  
*University Librarian, The University Of The West Indies, St. Augustine*  
*Trinidad And Tobago*  
at the Opening Ceremony

- Senator, The Honourable Dr. Lenny Saith, Minister of Public Administration and Information
- Mrs. Shamin Renwick President, of The Association of Caribbean University, Research and Institutional Libraries
- Professor Gurmohan Kochhar, Deputy Campus Principal, University of the West Indies, St Augustine Campus
- Professor Bridget Brereton, Chairman, Board of Directors, National Library and Information System Authority (NALIS) of Trinidad and Tobago
- Mrs. Ernest Greenidge, President of the Library Association of Trinidad and Tobago
- Mrs. Pamella Benson, Executive Director of the National Library and Information System Authority of Trinidad and Tobago
- Members of the Diplomatic Corps
- Permanent Secretaries in the Ministry of Public Administration and Information
- Members of the ACURIL Executive Council and ACURIL Past Presidents
- Conference Participants
- Specially Invited Guests
- Members of the Media
- Distinguished Ladies and Gentlemen:

We have come to the closing moments of the program and mine is the pleasant duty to move the Vote of thanks. But before I do so let me add my words of Welcome as Head of the St. Augustine Campus Libraries to all our conference participants and in particular to those visiting from overseas and even more precisely to those for whom this is your first visit to Trinidad and Tobago.

We have all been looking forward to this occasion and the Conclusion of the opening ceremony marks the start of the conference in a serious way. From what has transpired this afternoon, we can look forward to an interesting, productive and enjoyable conference.

I invite you to join me as we say a hearty thank you to all who participated in this afternoon's ceremony:

Mr. Brian Villafana, the steel pan soloist for his beautiful rendition of the Nation Anthem which set the tone for the afternoon

Mrs. Ernesta Greenidge President of LATT for her warm greetings expressing the sentiments of the entire professional body in T&T. We would like to thank her for also sharing some of the ACURIL traditions with us.

Professor Bridget Brereton, Chairman of the NALIS Board. Thank you for your gracious words on behalf of NALIS, a key institution as a base for the large majority of our library and informational professionals in T&T for its support of ACURIL



Professor Gurmohan Kochhar: Thank you for being here to represent The University of the West Indies at the highest level and for expressing the continued support of UWI the regional institution for ACURIL another important regional association of library and information professionals. The support of the St Augustine Campus administration for its library and information services, in terms of the ratio of the overall budget which the library receives, is greatly appreciated.

Mr. Richard Rogers and Mr. Brian Villafana. Thank you for your unique rendition of the ACURIL song as a vocal and steel duet. We look forward to the special touches each year.

Mrs. Shamin Renwick,; President. Thank you for your vision and leadership of ACURIL and for setting the tone for this year's conference. I can assure you that we are all eagerly looking forward to the next few days.

Senator the Honourable, Dr Saith: Many thanks for your reflections on the theme of our conference and for sharing the Government of Trinidad and Tobago's plans and policies We have also noted your expression of the commitment and the support of the Government for our profession and for our organization.

To you the Audience, all our local and overseas conference participants and all of our friends and well-wishers who have come to join with us in launching our XXXIV ACURIL Conference, third one to be held in Trinidad and Tobago. I would like to special acknowledge, Mrs Ann Gift, member of the Tobago House of Assembly who has joined us from Tobago. You have been a warm and appreciative audience. We value your contribution. Thanks you for being here.

Members of the Media, Staff at the Hilton Conference Centre. We acknowledge and say thank you for you assistance and participation in this evening proceedings.

To NALIS who sponsored the Cocktail Reception which is still to come.

Finally to our Chairperson for the this evening's Opening Ceremony, Miss Elmelinda Lara who as Chair of the Local Organising Committee has been working with the Chairs of all the other sub-committees and the Steering committee to plan, not only this Opening Ceremony, but this entire Conference.

Elmelinda Lara and all her Committee Members deserve a special round of applause.

Thank you very much Ladies and Gentlemen and do enjoy the rest of the evening!

Discours de Clôture Presidente  
Mme. Anique Sylvestre, Presidente  
*Association des Bibliothèques Universitaires, de Recherche Et Institutionnelles  
de la Caraïbe (ACURIL), 2004-2005*  
at the Closing Ceremony

Je me souviens que l'an dernier, j'avais manifesté mon émotion en répondant positivement à la proposition que me faisaient les membres du conseil exécutif; j'avais rappelé mon premier acuril en terre de Trinidad et remercié le conseil exécutif et particulièrement Shamin de m'avoir choisie .

En général, je ne crois pas au hasard, mais peut-être existe-t-il et que cette île de Trinidad me le fait savoir : Shamin la Trinitarisme m'accueille sur cette terre, sa terre et me passe le flambeau.

Et je me souviens aussi qu'à ce premier Acuril auquel j'assistais, c'était donc à Trinidad, le thème central était déjà les nouvelles technologies, au pont que je m'étonnais qu'un intervenant\_ rasta (tiens ! il y en avait ici aussi !) docte personnage soulevait alors la question de la connections, informatique j'entends, trop évidente avec l'impérialisme US.

Décidément, cette organisation commençait à me plaire! Je ne vais pas oublier de mentionner\_ sans esprit de provocation\_ mon étonnement encore plus grand lorsque, à la nomination du président, toute l'assemblée s'était levée à son appel pour une prière musulmane. Et pour parachever la description de mon souvenir trinitadien, la nuit de l'hospitalité dans un jump up endiablé me faisait toucher du doigt notre diversité caribéenne, notre façon de penser, de travailler, de vivre commune.

Merci et encore merci encore au comité exécutif, à Shamin, à vous tous de me donner votre confiance.

En cette année 2004, pour la quatrième fois, la francophonie est à l'honneur et pour la deuxième fois la Martinique.

C'est donc avec beaucoup de bonheur mais aussi de fierté que je prends le relais de Shamin, mais aussi de Marie-Françoise Bernabé, de Wilfrid Bertrand et de Odile Broussillon pour oser aujourd'hui non pas une rupture dans nos fréquents et longs rendez-vous autour des NTIC, mais pour tenter de revenir, ou plutôt d'orienter vers la lecture publique, mon dada. Mais nous verrons bien qu'il n'y a pas de contradiction.

Je le dis parce que je me demande \_ mais peut-être est-ce simplement de la déformation professionnelle puisque je suis avant tout du milieu de la lecture publique\_ si en entendant tel un nouveau leitmotiv l'expression « fracture numérique », on en crée pas une nouvelle, à côté de l'illettrisme et de la fracture sociale, tout simplement.

Mais, me direz-vous, le proverbe dit : « prévenir c'est guérir ». Allons donc! Je m'entends : la fracture numérique ne vient pas uniquement à mon sens du fait de ne pas savoir utiliser ces nouveaux moyens que sont les NTIC mais bien surtout de ne pas savoir lire et écrire.

Il me semble donc important de revenir à la lecture, et singulièrement à la lecture publique, donc à la nécessité de la lecture pour tous et de lier lecture et NTIC dans les structures de lecture.

C'est selon cette démarche qu'il faudra lire le thème que je propose pour notre prochain congrès d'Acuril : « identifier les savoirs pour mieux aménager un espace public de la connaissance ».

Le thème m'apparaît d'autant intéressant et opportun qu'il me semble totalement en phase avec celui du premier sommet de l'information de la Caraïbe : CSA, l'association des économistes, les Historiens, UNICA, la revue Atlantéa, congrès que nous devons tenir sur une journée en parallèle et conjointement avec elles dans le cadre de notre Acuril 2005 à la Martinique.

Le thème du congrès que nous tiendrons avec ces associations sera celui-ci : « Notre Caraïbe : nous pensons ensemble, nous travaillons ensemble ».

Il me revient que l'an dernier, notre nouvelle past-présidente Shamin, introduisait son discours inaugural ainsi : « The multilingual nature of our region has posed a challenge to cohesive development »

Je compléteraï volontiers en avançant que le fait que nous soyons pour la plupart des îles, et le fait que nous soyons le produit de plusieurs races et cultures nous condamnent au rassemblement, à l'entente , à la cohésion.

« J'ai fait le rêve », comme dirait l'autre que tôt ou tard, nous serons ce sixième continent où nos différences seront une richesse et un atout et où la devise d'Acuril : « the unity within the diversity » sera la règle.

Peut-être le choix de ce thème commun, je le répète: « Notre caraïbe : nous pensons ensemble, nous travaillons ensemble » sera-t-il une petite étape ; c'est bon de rêver ! Faut-il encore que les TIC sont pour nous un réel outil de communication qui nous permette de résoudre nos problèmes et non colmater seulement nos brèches, qu'ils ne soient pas l'arbre qui cache la forêt.

Je vois de bon augure ce pré séminaire que je propose autour de Caribal'édist, ce projet caribéen, acuriléen dirais-je, plus précisément même s'il est porté par l'Université des Antilles et de la Guyane en ce sens qu'il dépasse déjà les seules frontières de la Martinique et de la Guadeloupe et qu'il s'envisage aussi pour Haïti. C'est le signe, disons-le aussi, que des projets dont les fonds de financement sont européens peuvent être transférés en soutien à d'autres contrées plus démunies de notre région caraïbe.

Enfin, la semaine d'immersion dans la langue française pourra être le moyen de plus de jeter un pont vers plus d'échanges entre nos communautés.

J'ai parfaitement conscience qu'en étant minoritaire au plan linguistique, les choses ne me seront pas aisées. C'est pourquoi j'espère et je compte sur le soutien et l'appui de chacun d'entre vous, de celui du CE et de Shamin en particulier pour que nous avancions malgré notre pouvoir caribéen de nous dénigrer et de nous freiner dans notre marche en avant.

Je compte sur vous, je compte sur vous pour que nous soyons plus fort en Martinique aussi.

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