



United Nations  
Educational, Scientific and  
Cultural Organization

Communication and  
Information Sector

# Information for All Programme

# IFAP

Report  
2004/2005



Living  
Information

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**Information  
for All  
Programme**

**IFAP**

**Report 2004/2005**

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 **Living  
Information**

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Editor:  
Elizabeth Longworth

Co-editors:  
Viisti Dickens, Katja Römer, Axel Plathe, Misako Ito

Design: sm graphic, Sophie Mouterde

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*Living Information* brings together two important concepts – access to information and the use of information. Information that is “living” suggests that people have access to information and can use it, including information that previously might have been inaccessible in libraries, archives and museums. Living Information also refers to information that helps people enhance their “lives”, for example through education and improved health.

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## Abbreviations

<b>AASL</b>	American Association of School Librarians	<b>INGO</b>	International Non-governmental Organizations
<b>ACURIL</b>	Association of Caribbean University, Research and Institutional Libraries	<b>IL-LL</b>	Information Literacy – Lifelong Learning
<b>ADS</b>	Australian Development Scholarship	<b>IP</b>	Intellectual Property
<b>AECT</b>	Association for Educational Communications and Technology	<b>IPDC</b>	International Programme for the Development of Communication
<b>AES</b>	Audio Engineering Society	<b>ISG</b>	New Zealand Internet Safety Group
<b>AFRILEX</b>	African Association for Lexicography	<b>ITU</b>	International Telecommunication Union
<b>ALA</b>	American Library Association	<b>LIFE</b>	Literacy Initiative for Empowerment
<b>CARICOM</b>	Caribbean Community and Common Market	<b>MISA</b>	Media Institute of Southern Africa
<b>CGTI</b>	Council General for Information Technologies	<b>NLS of DAC</b>	National Language Service of the Department of Arts and Culture of South Africa
<b>CIS</b>	Commonwealth of Independent States	<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>CITRA</b>	International Conference of the Round Table of Archives	<b>OPAC</b>	Open Public Access Catalogue
<b>CITRED</b>	Centre for Information Technology Research and Development	<b>PANSALB</b>	Pan South African Language Board
<b>COMLA</b>	Commonwealth Library Association	<b>R&amp;D</b>	Research and Development
<b>EGIFAP</b>	Egyptian National Commission for the IFAP	<b>RFID</b>	Radio Frequency Identification
<b>eIFL.net</b>	Electronic Information for Libraries	<b>RTA</b>	Radio Television Afghanistan
<b>FAIFE</b>	IFLA Committee on Free Access to Information and Freedom of Expression	<b>SADC</b>	Southern African Development Community
<b>FOWODE</b>	Forum for Women in Democracy	<b>SCAULWA</b>	Standing Conference of African University Libraries West Africa
<b>GDP</b>	Global Database on Good Practices in Designing, Implementing and Evaluating ICT Development Projects	<b>SCESCAL</b>	Standing Conference of Eastern, Central, and Southern Africa Library and Information Associations
<b>GPC</b>	Good Practices Criteria	<b>SF</b>	Success Factors
<b>HIVOS</b>	Humanist Institute for Cooperation with Developing Countries	<b>SL DMC for LISA</b>	Sri Lanka Disaster Management Committee for Libraries, Information Services and Archives
<b>HLT</b>	Human Language Technologies	<b>StanSA</b>	Standards South Africa
<b>HSM</b>	Hierarchical Storage Management	<b>UIS</b>	UNESCO Institute for Statistics
<b>HUFS</b>	Hanoi University of Foreign Studies	<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>IASA</b>	International Association of Sound and Audiovisual Archives	<b>UNDP</b>	United Nations Development Programme
<b>ICA</b>	International Council on Archives	<b>UNIFEM</b>	United Nations Development Fund for Women
<b>ICT</b>	Information and Communication Technologies	<b>USAID</b>	United States Agency for International Development
<b>IDRC</b>	International Development Research Centre	<b>UWI</b>	University of the West Indies
<b>IFAP</b>	Information for All Programme	<b>VDIC</b>	Vietnam Development Information Center
<b>IFLA</b>	International Federation of Library Associations and Institutions	<b>WHO</b>	World Health Organisation
<b>IGO</b>	Intergovernmental Organizations	<b>WPIIS</b>	OECD Working Party on Indicators for the Information Society
<b>IICD</b>	International Institute for Communication and Development	<b>WSIS</b>	World Summit on the Information Society
<b>INA</b>	Institut national de l'audiovisuel		

## Role and Purpose of the Information for All Programme

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**The Information for All Programme** (IFAP) is UNESCO's response to the challenges and opportunities of the Information Society. The last decade has witnessed technological development at a scale and speed unprecedented in the history of humankind. The challenge the world faces is now to ensure equitable access for all people to seize these new opportunities. Information is central to development. Information is essential for survival and sustainability. Information is the pathway to understanding and peace.

Access to information resources contributes directly to economic growth. The ability to find and apply the right information can help tackle some of the world's most critical issues – poverty, health, quality education, disaster prevention, governance and care of the environment. HIV/AIDS is now recognised as a problem deriving primarily from a lack of information. Teachers and students require access to quality learning resources. Early warning systems can help reduce the loss of life from natural disasters. Publicly accessible information on political decisions is essential for good governance. Information about the effects of pollutants can help societies create more sustainable futures.

The Information for All Programme seeks to address these crucial issues by narrowing the gap between the information rich and the information poor. It provides a framework for international cooperation and partnerships and supports the development of common strategies, methods and tools for building an Information Society for all, or in other words, for building inclusive and pluralist Knowledge Societies.





**Daniel Malbert**

Chairperson,  
Intergovernmental Council  
for the Information for All  
Programme,  
Representative of France

## From the Chairperson

**When UNESCO's** Executive Board launched the Information for All Programme in 2000, it was with the intention of reinforcing UNESCO's authority in the new and complex field known as the "Information Society". Our societies have been Information Societies since the dawn of time, but the advent of new, very powerful technological tools (the worldwide web, electronic chips with enormous text, image and sound processing capacity) and the concomitant emergence worldwide of new forms of exclusion that are even more spectacular and unquestionably more threatening than anything ever experienced before have wrought changes, creating the risk of entire continents and communities being sidelined, suddenly finding themselves on the wrong side of a new kind of divide, the digital divide. Digital is virtual, but the divide is harsh reality. During the preparations for the World Summit on the Information Society (WSIS), UNESCO emphasized the importance of building Knowledge Societies based on solidarity and sharing and keen to promote the diversity of cultures and of methods of development. UNESCO made its voice heard in Geneva and then in Tunis, but the most important task now is to promote access to education and knowledge, in particular through the use of communication tools, to ensure freedom of expression and creation, and to strengthen cultural

diversity, international solidarity and dialogue among cultures. To that end, specific activities must be carried out, guided by principles, based on the real needs of the intended beneficiaries and designed to further the major objectives set by the international community.

The Programme's Intergovernmental Council, composed of representatives of every region in the world, has requested its Bureau to analyse situations in their diversity, study existing approaches and mechanisms and formulate innovative proposals on those bases. This document sets out, in brief, the substance of this work based on knowledge and expertise. Literacy and mastery of writing are basic prerequisites for ensuring that the world is not divided between producers and receivers of information. Information literacy (knowing how to find, understand, critically analyse, use and produce information), however, also presupposes other habits and skills, and an IFAP thematic debate on information literacy has thrown light on some key aspects of those skills.

In a world of ever more rapid information flows, the risks engendered by such speed must be identified: first, there is the risk of information being lost, buried under the constant flow, or deleted because of the fragility of the media used, while other risks concern the quality of information in that it may be manipulated, distorted or exploited for propaganda purposes or in order to

control people's behaviour and opinions. More than ever before, citizens and communities alike must be able to make themselves heard and keep the essence of their cultural heritage and memory alive. Information literacy, through the training of professionals in particular, sensitization to the implications of the long-term preservation of information and, lastly, analysis of the ethical, legal and societal challenges of information and communication technologies therefore constitute the three consistent and complementary priorities of the Programme and give the practical expression to the mandate provided by the Member States.

Now that these priorities have been set, support has been provided for 37 projects concerning education, the preservation of languages and cultures, archives and libraries. All these projects are informed by the same philosophy based on a high level of beneficiary involvement, assistance from professionals with proven experience and, finally, close monitoring by the UNESCO Secretariat and the Council's Bureau. In each case, the aim has been to make the most of the lessons of experience and local demands. The words which best sum up the Programme's approach are clear priorities, networking and stronger cooperation with the Organization's various sectors and programmes (in particular the International

Programme for the Development of Communication (IPDC)), given the multidimensional nature of the issues raised and the need to find an intersectoral solution.

We have every hope that the quality of the work done and the visible results of these efforts, to which UNESCO's Executive Board at its 172nd session and the General Conference at its 33rd session in 2005 paid tribute, will give Member States and private partners good reason and above all the desire to join in funding this Programme, for nothing will be achieved if there is no desire to succeed. I believe I reflect the conviction of the members of the Bureau and the Intergovernmental Council accurately when I say that we cannot allow ourselves to lack ambition, because a world society, based on communication and knowledge-sharing, vitally needs mediators in order to produce and transmit knowledge, protect the most valuable and the most endangered knowledge, guarantee the value and reliability of information and skills and above all, include the poorest and the weakest in our concerns and ensure, in all circumstances, that others do not forget them.





**Abdul Waheed Khan**

UNESCO Assistant  
Director-General  
for Communication  
and Information

## From UNESCO's Assistant Director-General for Communication and Information

**Access to information** and knowledge is a core need for human development and well-being, enabling individuals, communities and countries to achieve their full potential and to improve their quality of life. Access to and the ability to apply information and knowledge increasingly determines patterns of learning, cultural expression and social participation. It also provides opportunities for development, effective poverty reduction and the preservation of peace. Information and communications technologies (ICT) can facilitate access to information and the building of knowledge. With this potential, ICT is therefore a catalyst for the achievement of the Millennium Development Goals.

But not everybody can create, access, use and share information and knowledge. Although ICT increasingly heralds opportunities for people in all parts of the world, many of them do not have effective and equitable access to the means of producing, disseminating and using information, and they therefore lack access to the development opportunities offered by ICT.

UNESCO, with its mandate to promote the free flow of ideas using words and images, and to maintain, increase, preserve and disseminate knowledge, has thus established the Information for All Programme – it seeks to narrow the gap between the information rich and the information poor and to contribute to building Knowledge Societies.

Many of the actions of the Information for All Programme are designed to set standards, raise awareness and monitor

progress so as to achieve universal access to information and knowledge.

This includes promoting the formulation of integrated information and ICT strategies and policies in Member States.

This report provides an overview of IFAP's work within its current three priority areas – information literacy, infoethics, and the preservation of information – over the last two years. As measuring the Information Society in general, and measuring progress made in IFAP's priority areas in particular, are of importance to the work of the Programme, this topic forms a fourth part of this report. Features on selected IFAP projects, summaries of thematic debates and expert papers will provide you with in-depth information on these areas and the accomplishments of IFAP. Looking at the work undertaken over the last two years, I remain convinced that the Information for All Programme is a crucial asset to UNESCO's contribution to building Knowledge Societies. The Programme's focus on promoting universal access to, and the skills to apply, information and knowledge is a key strategy in UNESCO's advocacy of this concept. It is only by keeping information alive and by empowering people through information, that we can truly engage with and celebrate *Living Information*.

# Information Literacy



**Information literacy** involves teaching and learning about the whole range of information sources and formats. To be information literate you need to know why, when, and how to use all of these tools and think critically about the information they provide.

Information literacy aims to develop both critical understanding and active participation. It enables people to interpret and make informed judgments as users of information sources, and it also enables them to become producers of information in their own right, and thereby to become more powerful participants in society. Information literacy is about developing people's critical *and* creative abilities. Digital media – and particularly the Internet – significantly increase the potential for such active participation of the individual, provided people have the means and training to effectively access and use them.

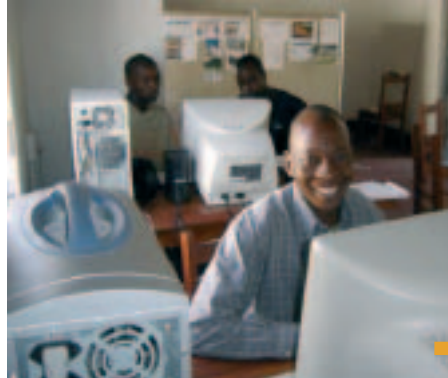
Information literacy forms part of the basic entitlement of every citizen, in every country of the world, to freedom of expression and the right to information. It is thereby instrumental in building and sustaining democracy and good governance, and represents a basic condition for any successful e-governance programme.

Further, information literacy forms the basis for lifelong learning. While recognizing the disparities in learning styles and in the nature and development of literacy in different countries, the principle of information literacy is common to all disciplines, to all learning environments and to all levels of

education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning.

For this reason, an effective information literacy programme for all is essential and should be developed and delivered in both formal and informal education, within the framework of the United Nations Literacy Decade (2003-2012). The target audience should not only include teachers or young students, but also adult basic learners, professionals and decision-makers, because all people need to acquire information skills to make informed decisions. IFAP engages in promoting information literacy and supports projects in this area to enhance social development, workforce performance and economic well-being.

Since the Internet is a common information and communication tool, information literacy is often understood as digital literacy, but it must be acknowledged that there are differences between information technology skills, computer literacy, media education and information literacy. In any case, information technology skills enable the individual to access, create, and use information to advance his or her position in the workforce and improve their quality of life. Whilst computer literacy is an important first step, beyond this, to become information literate, individuals have to reach an awareness that information can be of help, that resources exist, that the skills to use the resources can be learned, and that once the information has been acquired, critical evaluation is yet to occur. The principle of information literacy implies that individuals initiate, sustain,



Searching the Internet  
for information

and extend lifelong learning through the development of abilities which may use technologies, but are ultimately independent of them.

In the long-term, a vigorous information literacy campaign may result in the emergence of an 'information culture'. In this new environment, information would not only be used in an effective and ethical way, but also, people would understand the economic, legal and social issues surrounding the use and sharing of information.

In this chapter, the concept of information literacy will be expanded upon, through a summary of the key aspects of IFAP's thematic debate and the presentation of two expert papers. Selected projects implemented with the support of the Information for All Programme will then demonstrate some of the achievements and developments in information literacy around the world. The chapter aims to provide insight into latest policy level discussions as well as elucidate local activities that, together, comprise the future of information literacy for all. ■

**Namtip Aksornkool**

**Hannelore B. Rader**

**Kay Raseroka**

**Divina Frau-Meigs**

**Philip C Candy**

**Yves F. Le Coadic**

**Jim Wynn**

**Albert K. Boekhorst**

## Experts Speaking

## Setting the Frame: IFAP Thematic Debate

**To address** the issues outlined in the introduction to this chapter, more than 50 experts, including the IFAP Bureau members, academics, representatives from NGOs, media professionals, and UNESCO staff, took part in a debate on information literacy at UNESCO Headquarters on 5 April 2005.<sup>1</sup>

During the discussion participants addressed fields as diverse as education and learning, economic development (labour and workforce), governance and citizenship, and health and human services. The debate centered around the following questions: What is information literacy? What are people's needs? What education programmes are required to meet these needs? And what strategies and actions can IFAP implement with respect to information literacy?

By offering their expertise in the various fields mentioned above, participants assisted the IFAP Bureau in developing an understanding of the concept of information literacy as a process that provides people with the skills and abilities for critical reception, assessment and use of information in their professional and private lives. They identified strategies and actions for achieving more information literate societies, agreeing that efforts need to be made to widely promote the concept of information literacy. To that end, speakers underlined that, besides the general public, governments and professionals working in the information and education sectors need to be targeted.

While it is essential that the concept of information literacy be included in the curriculum at primary, secondary and tertiary levels around the world, it is also

### Speakers

#### ■ Abdelaziz Abid

UNESCO Information Society Division  
"Information Literacy for Life-Long Learning"

#### ■ Namtip Aksornkool

UNESCO Section for Literacy and Non-Formal Education  
"Literacy for All as Information for All"

#### ■ Hannelore B. Rader

University of Louisville  
"The Global Significance of Information Literacy in Workforce Development"

#### ■ Kay Raseroka

International Federation of Library Associations and Institutions (IFLA), "The Librarian's Viewpoint"

#### ■ Divina Frau-Meigs

Université Paris-Sorbonne  
"Education aux Médias et aux TIC à l'ère numérique: les priorités symboliques et structurelles pour l'alphabétisation à l'information"

#### ■ Philip C Candy

NHSU Institute  
"Reflections on Information Literacy in the Context of Health and Human Services"

#### ■ Yves F. Le Coadic

Conservatoire national des arts et métiers (CNAM)  
"Curriculum Développement-Maîtrise scientifique et maîtrise technique de l'information"

#### ■ Jim Wynn

Schools Developments and Strategy Manager, EMEA Education Solutions Group, Microsoft Limited  
"Statistical Literacy"

#### ■ Albert K. Boekhorst

Medewerker, Faculteit der Geesteswetenschappen Leerstoelgroep Archief- en informatiewetenschap, Amsterdam, "Information Literacy in the Netherlands and South Africa"



necessary to implement information literacy in the professional development of education experts in the first place. As Penny Moore underlined in her paper,<sup>2</sup> “even in comparatively resource-rich countries, many teachers agree that information literacy is important, while admitting to an uncertainty concerning how to promote it.” Hence, the development of model curricula has been identified as one of the actions that could be taken by IFAP.

Taking the example of the health sector, participants stressed that health information literacy can enable people to take responsibility for their own health and wellbeing. However, coordinated national approaches to health information literacy, international standards and pilot programmes barely exist. Speakers agreed that IFAP should engage in this field.

For the promotion of information literacy as well as for the implementation of projects in the field, participants in the debate encouraged IFAP to partner with key stakeholders such as the International Federation of Library Associations and Institutions (IFLA), the International Council on Archives (ICA), the American Library Association (ALA), the Organisation for Economic Co-operation and Development (OECD), and the World Health Organization (WHO).

Concluding the debate, participants agreed that the concept of information literacy and its potential to contribute to information for all still lacked public awareness, and needed to be communicated via all available channels to the widest possible audience in order to create more information literate societies. ■

<sup>1</sup> The debate took place within the framework of the 8<sup>th</sup> meeting of the Bureau of the Intergovernmental Council for the Information for All Programme. A comprehensive report of the thematic debate is included in *UNESCO. Information for All Programme (IFAP). Thematic Debates of the Bureau of the Intergovernmental Council for the Information for All Programme. Issues and Outcomes*. Edited by Laurence Zwimpfer (New Zealand) - Paris: UNESCO, 2005. - i, 26 p. ; 30 cm. (CI-2005/WS/6). The report can be accessed at <http://www.unesco.org/webworld/ifap/debates>. Papers of the debate can be accessed at [http://portal.unesco.org/ci/en/ev.php-URL\\_ID=19621&URL\\_D0=D0\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/ci/en/ev.php-URL_ID=19621&URL_D0=D0_TOPIC&URL_SECTION=201.html).

<sup>2</sup> The paper can be accessed at [http://portal.unesco.org/ci/en/file\\_download.php/33e3dd652a107b3be6d64fd67ae898f5Information+Literacy+Education+\(Moore\).pdf](http://portal.unesco.org/ci/en/file_download.php/33e3dd652a107b3be6d64fd67ae898f5Information+Literacy+Education+(Moore).pdf).

## Information Literacy for All: An Education Challenge

### Thinking Big!

UNESCO likes to think big! 'Education for All'. 'Information for All'. And 'all' means everyone: all 6.5 billion people spread throughout the world. These two ambitious goals play a big part in shaping UNESCO's work. In 2000, the 'Education for All' campaign became part of the Millennium Development Goals, with a new target date of 2015. Comparatively, 'Information for All' is barely five years old, but has already been profiled in 2003 and 2005 at the two phases of the World Summit on the Information Society (WSIS), although no target date for completing this information goal has yet been set.

Emerging from these two global programmes is an equally challenging goal – 'Information Literacy for All'. The concept of information literacy is not well understood, despite the efforts of a small group of education and library professionals who have provided global leadership in this area for the last decade. However, with the help of UNESCO, and more specifically, the Information for All Programme, information literacy is gaining recognition as a critical dimension in achieving the higher level goals for 'Education for All' and 'Information for All', as well as in the creation of Knowledge Societies.

The very first challenge regarding the concept of information literacy is thus to develop a common understanding of the terminology, especially in different languages, as the term is often confused with computer literacy, digital literacy and ICT literacy. As for the translation into French, the IFAP Bureau agreed at its thematic debate on information literacy<sup>3</sup>

on "Initiation à la maîtrise de l'information" as the most accurate French translation of the concept of information literacy. Yet the challenge remains to find comparable terms in the other four official UNESCO languages.

### Digital Literacy

Philip Candy, an international expert on information literacy, suggests that a solution to the definitional issues might be to adopt 'digital literacy' as a new hybrid concept that blends the concepts of ICT literacy and information literacy. He points out that the ability to navigate in cyberspace and to negotiate hypertext documents is separate both from ICT literacy and information literacy, but entails elements of both.<sup>4</sup> Candy also suggests that the concept of information literacy can be more easily understood when presented within a specific context and provides an example in the area of health and human services: "While there are many justifications for developing an information-literate citizenry, one of the most compelling is probably the fundamental, universal responsibility for health and wellbeing."<sup>5</sup>

### Lifelong Learning

Penny Moore, another global expert in information literacy, has referred to information literacy as "the road map that leads to lifelong learning."<sup>6</sup> The International Federation of Library Associations and Institutions (IFLA) also links information literacy and lifelong learning by suggesting a new concept of 'lifelong literacy'.



**Laurence Zwimpfer**

Rapporteur,  
Intergovernmental Council  
for the Information for All  
Programme,  
Representative of  
New Zealand

Literacy is high on UNESCO's education agenda, as it is for many Member States. The recent launch of the UNESCO Literacy Portal<sup>7</sup> brings together a number of significant literacy initiatives – the Literacy Initiative for Empowerment (LIFE), the United Nations Literacy Decade (2003-2012), the International Literacy Day and the 2006 Global Monitoring Report – Literacy for Life.

However, the need for Governments to focus on information literacy does not yet appear to be widely recognized. Moore recommends that Governments establish advisory groups to develop coordinated implementation plans,<sup>8</sup> noting that there are internationally recognized publications such as the IFLA/UNESCO School Library Manifesto<sup>9</sup> and information literacy standards developed by the American Association of School Librarians (AASL) and the Association for Educational Communications and Technology (AECT) to help guide these efforts.<sup>10</sup>

There is a critical need for an information literacy curriculum at all levels of schooling, one that is accepted by and implemented by governments and education administrators. Information literacy should also be introduced wherever possible within tertiary, non-formal and life-long education. Frequently, ill-equipped teachers are a barrier to creating more information literate students. To help address this issue, elements of training in information literacy should be part of teachers' ongoing professional develop-

ment, so they develop skills and knowledge that can be passed on to students.

### IFAP Information Literacy Projects

In 2004, the IFAP Bureau agreed on three specific priorities for the allocation of project funds, one of which was information literacy. Of the 37 projects funded in 2004 and 2005, 14 address this priority. The total funding allocated to the 14 projects was US\$318,236 and by the end of 2005, a number were already underway, including two in Ghana and one in Vietnam. The programmes in Ghana are reaching students in a rural senior secondary school in the Aboba/Chereponi district in the north of the country, as well as 50 headmasters and teachers from ASPnet schools in Accra. After just two months, students in Ghana are already describing the project as a "life-changing experience". In Vietnam, a 12-month information literacy professional development programme has been launched for information professionals from 10 major academic libraries.

### High Level Colloquium

In November 2005, some 25 information literacy experts gathered in Alexandria, Egypt, with the support of UNESCO, to develop a contribution for the World Summit on the Information Society. The meeting built on the Prague Declaration *Towards an Information Literate Society*<sup>12</sup> developed in September 2003,

to produce the Alexandria Proclamation *Beacons of the Information Society*. The Proclamation urged Governments and intergovernmental organizations to pursue policies and programmes to promote information literacy and lifelong learning, including regional and thematic meetings, professional development of education, health and information professionals, integration of information literacy into all education and training programmes, as well as the promotion of programmes to increase the employability and entrepreneurial capabilities of women and the disadvantaged.

### The Education Challenge

There are clear synergies between the strategies and actions developed at the IFAP thematic debate on information literacy and the recommendations from the Alexandria Colloquium, and together they provide a rich source of ideas for the development of UNESCO's workplans for the 2006-07 biennium and beyond. While UNESCO and other international forums can continue to promote the importance of information literacy, the real challenge is at the national level. Within the context of national education frameworks, librarians, teachers, teacher educators, curriculum developers, as well as information professionals in other sectors such as health, must collaborate with policy makers to ensure that information (or digital) literacy remains high on the agenda in order to realize the benefits of emerging Knowledge Societies. ■

<sup>3</sup> The IFAP thematic debate on information literacy took place on 5 April 2005 at UNESCO Headquarters in Paris, France.

<sup>4</sup> Candy, Philip: "Does digital literacy mean more than clicking your fingers? New Literacies for the electronic age." In: Hugh Guthrie, Australian Flexible Learning Framework, Australian National Training Authority (ed)(2003): *Online Learning: Research Findings*, p 21-40.

<sup>5</sup> Candy, Philip (2005): "Reflections on Information Literacy in the Context of Health and Human Services." Paper presented at UNESCO IFAP Thematic Debate on Information Literacy, 5 April 2005.

<sup>6</sup> Moore, Penny (2005): "Report on the 4<sup>th</sup> Seminar Workshop of the 7<sup>th</sup> Programming Cycle of APEID Activities."

<sup>7</sup> UNESCO Literacy Portal.  
<http://portal.unesco.org/education/en>.

<sup>8</sup> Moore, Penny (2002): "An Analysis of Information Literacy Education Worldwide," White Paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, The Czech Republic, July 2002.  
<http://www.nclis.gov/libinter/infolitconf&meet/more-fullpaper.pdf> (accessed 16.12.2005).

<sup>9</sup> IFLA/UNESCO School Library Manifesto.  
<http://www.ifla.org/VII/s11/pubs/manifest.htm> (accessed 16.12.2005).

<sup>10</sup> Access to these resources has been centralized by the IASL School Libraries Online Web site: <http://www.iasl-slo.org>.

<sup>11</sup> *The Prague Declaration: Towards an Information Literate Society*.  
[http://www.infolit.org/International\\_Conference/PragueDeclaration.doc](http://www.infolit.org/International_Conference/PragueDeclaration.doc) (accessed 16.12.2005).

<sup>12</sup> *The Alexandria Proclamation: Beacons of the Information Society*.  
<http://www.ifla.org/III/wsis/BeaconInfSoc.html> (accessed 16.12.2005).



**Forest Woody Horton**

International Information  
Consultant

## Information Literacy and Lifelong Learning (IL-LL) in the Context of Governance and Citizenship

**Today** there is perhaps no more important challenge facing countries which aspire to become productive and competitive members of the emerging global Information Society than to establish and actively promote two strategic and complementary national goals, and then to plan, implement and regularly monitor programmes, budgets and projects to carry out those goals. The two goals are:

1. Helping policy-makers at national, provincial and local levels *to become more informed* so that they can formulate wise laws, rules, regulations and policies, craft effective and realistic programmes, and create a climate of trustworthiness and transparency that fosters collaborative public-private sector partnerships; and
2. Helping their citizens *to become more knowledgeable* and understand the key economic, social, environmental, energy, and other key issues confronting their nation and thus their country's distinctive competitive strengths and trade opportunities, so as to vote wisely and in large numbers in their country's democratic elections, and be motivated to become more intimately involved as a proactive participant in their local community's many activities.

These two goals have one indispensable, pervasive, and common denominator – the need for accurate, timely, reliable and easily accessible data, information and knowledge. Without information, and without the skills necessary to know whether or not the information needed already exists or whether it must be created, where and how to find and retrieve it, how to understand, organize, evaluate, and then use it, both policy-makers and citi-

zens remain largely ignorant of the multifaceted nature of the challenges and problems they as individuals, and their countries as nations on the global economy, face. If they are ignorant of the nature of the challenges and problems they face, they cannot be expected to devise appropriate and effective solutions.

The competencies needed to exploit information as a valuable, but sometimes costly resource, are coming to be called 'information literacy'. The concept of information literacy should be pursued in the context of 'lifelong learning'. Although information literacy skills are indispensable to critical thinking and lifelong learning, neither one is currently widely and systematically taught in schools at any level. Albeit psychologists and pedagogy experts understand the need to implement these concepts, the requirement has not yet been extensively and effectively translated and integrated into curriculums, government policies, and the pursuit of promising pilot project initiatives that could be rigorously evaluated, adapted and extended to many different cultures and national circumstances.

This is where UNESCO comes in. UNESCO has taken on an international leadership role to foster the interchange of ideas and experiences among theorists and practitioners around the world in the context of specialist meetings and also by providing seed money for promising pilot projects. In the past two years, a number of local, sub-regional, regional and international conferences have been either directly organized and sponsored, or encouraged by UNESCO, so that many of the most promising IL-LL approaches being taken in areas such as governance

and citizenship, economic development, health and human services, and learning and education, could be identified, nurtured, refined, adopted to local unique circumstances and needs, and exploited more fully by professionals and decision-makers from all sectors and fields, including government, academia, business, and not-for-profit organizations.

### **1. International Intergovernmental and Non-Governmental Organizations (IGOs & INGOs)**

IGOs and INGOs must provide global leadership by articulating and publicizing the strategic importance of IL-LL to their member constituencies, and by mounting highly visible flagship activities and events, such as the UN's Literacy Decade. They can also point out the relevance of IL-LL to helping countries achieve chronic and often intractable goals such as improving basic literacy rates, alleviating poverty and diseases like HIV/Aids, coping with natural disasters, combating unemployment and underemployment, dealing with social instability, and many other issues.

### **2. National Governments**

National Governments must identify a lead ministry or other high level official to whom overall responsibility and authority is assigned to coordinate the planning of IL-LL initiatives within the country. Ideally, ministries should collaborate in formulating IL-LL plans, policies and budgets, especially those with the following portfolios: education; communications and infor-

mation; archives, museums and libraries; local development; business and industry promotion; culture and social development; science and technology; and health and human services.

### **3. Academia (Formal and Informal)**

Both formal higher education and K12 institutions, as well as informal education institutions such as vocational and technical schools, in cooperation with Distance Education and eLearning programmes, must partner with curriculum design experts, volunteer faculty members, and school librarians, to design IL-LL approaches suitable for both the arts and the humanities, as well as the sciences, and in all professional fields, so that critical thinking, information literacy and lifelong learning are all integral, coordinated and explicit elements of curriculums at the course level.

### **4. Private Enterprise (Large, Medium and Small Enterprises)**

Capitalizing on the respective strengths and capacities of the private and public sectors by creating partnerships between the two, and leveraging their comparative advantages is a key strategy to be developed, to achieve collaboration but avoid duplication and inefficiencies. For example, at the local neighborhood level, both privately owned and operated cybercafés and publicly owned and operated community telecentres increasingly coexist side by side, especially in developing countries; exemplifying coexistence between the two sectors for maximum gain.

### **5. Not-for-Profit Organizations (Foundations, Media, Societies, Associations; Civil Society)**

Civil Society must come together to lead a consortium of public interest groups, including professional societies and trade associations, in undertaking public recognition initiatives that are oriented to their respective membership constituencies, clienteles and other target audiences. This could be achieved, for example, under the banners of career development, professional training, internships, fellowships, scholarships, apprenticeships, public awards and other forms of recognition. Talented and gifted individuals, as well as risk-taking and entrepreneurial organizations, should be recognized and rewarded for their IL-LL initiatives.

### **6. Provincial and Local Governments**

Often, provincial and local governments are in a better position than central governments to carry forward national policies and programmes, especially with pilot projects.

### **7. Individual Citizens**

In the end it is the individual, information literate citizen, who has been motivated to acquire critical thinking skills, who is the key to a stable, productive and enlightened society. ■

# IFAP Projects





## Secondary Schools' Participation in Information Literacy Programmes in Northern Ghana

### Expanding the Network of Secondary Schools' Participation in Information Literacy Programmes in the Northern Region of Ghana

(IFAP Project 371, Code 461GHA5001)

<b>Contractor</b>	Centre for Information Technologies Research and Development (CITRED), Tamale, Ghana
<b>Country of Implementation</b>	Ghana
<b>Funding</b>	US\$ 25,000
<b>Project Partners</b>	<ul style="list-style-type: none"> <li>■ International Development Research Centre (IDRC), Canada</li> <li>■ International Institute for Communication and Development (IICD), Netherlands</li> <li>■ United States Agency for International Development (USAID)</li> </ul>
<b>Goal</b>	To increase opportunities that will broaden the network of secondary schools' participation in information literacy programs in the northern region of Ghana
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Conducting a needs assessment on the target group;</li> <li>■ Training participants in computer and internet skills;</li> <li>■ Training participants in the facilitation of online discussions;</li> <li>■ Establishing a web portal and database of educational institutions in northern Ghana;</li> <li>■ Organizing fora for exchange of ideas and best practices.</li> </ul>

**Saboba** is the administrative capital of the Saboba/Chereponi district in northern Ghana. The region is the largest in the country in terms of its geographical size, but is also one of the three most deprived regions in the country. Saboba is an international border town separated at the eastern end from the Republic of Togo by the river Oti. The people of Saboba are mostly farmers who depend heavily on an unreliable rainfall season in order to cultivate crops like cereals and legumes.

### Education in Saboba

The district has poor educational facilities and enrolment is very low at basic pre- and primary school levels. Teachers, as well as support staff, are frustrated by persistently inadequate housing facilities, and schoolteachers who reside in the district capital usually ride bicycles for anything between one and three hours to get to school. This means that they arrive at school late and leave again before sundown, effectively spending only little time in the schools actually teaching. During the rainy season, when most roads and footpaths are submerged under floods, teachers and pupils are simply unable to go to school.

There are only two secondary schools in the region: the government-managed Saboba Secondary School and the Catholic Mission-managed St Joseph's Secondary and Technical School. Naliban Florence and Ativor David are two young students residing in the area, who were lucky enough to be admitted to St Joseph's School. Although meaningful academic progression poses an enormous challenge in one of the most deprived areas of a deprived region in a developing coun-

try, David and Florence have fought against the odds to reach this level of education.

Even though this has made an advanced general education accessible to them, their ICT capacity is still non-existent as the school's computer laboratory is yet to be completely set up. Although a few computers are available, they are not yet in use, meaning that several students pass through school without ever seeing a computer mouse outside a textbook. It was therefore with high enthusiasm that their school headmaster, Axolu Godfred, put a proposal together in response to the Centre for Information Technology Research and Development's (CITRED) call for proposals, for his school to participate in the Information for All Programme. The news that St Joseph's school was among the few schools chosen for the programme was very positively greeted by teachers and students alike.

### Weekly Training

Every week David and Florence travelled a distance of about 150 km on a bad road to attend ICT training at CITRED, in Tamale. They had earlier filled in a needs-assessment form, indicating that they had practically no computer knowledge, despite having been recommended by school authorities as promising students. During the teachers' first encounter with the two students, it became evident that David and Florence were not only completely ICT illiterate but, more significantly, seriously lacked confidence in themselves.

On the first day of training, neither Flo, as her friends nicknamed her, nor David, could think of any way that computers

could make learning easier for them. They could not identify a diskette by sight but knew, from the books they had read, that it was meant for storing information. They could not believe it when their instructors told them a whole encyclopaedia collection could be put into one CD-ROM. They were not familiar with the abbreviation DVD-ROM and certainly not with its comparative advantage over the CD-ROM. In fact, for David and Flo, just as for the other eight participants from St Joseph's Secondary Technical School, IFAP funding provided them with their first ever opportunity to sit behind a personal computer. Although, their situation may be seen as very disturbing in an increasingly digital age, it is unfortunately a very common phenomenon across Ghana.

When the instructor enquired of them, on their first day of training at CITRED, how they felt about participating in the programme, David indicated "although we will be missing some classes every week, we will also be learning something that we have never had the chance to learn" and Flo added, "and for some of us, this is our first time sitting behind a computer." Her statement was actually true for all the other students from St Joseph's Secondary and Technical School participating in the programme. For example, when it came to the practical aspects of computer training, moving the mouse was something that required a new skill: teachers moved from one student to another to show them how to hold and move it. Soon, they were dragging icons about on the screen, and Flo's ability to change the desktop picture motivated also her peers to learn more, with one classmate asking whether she could have her picture saved as the screensaver on the

desktop, a clear sign that students were beginning to think through the underlining concepts.

### Student Progress

By the end of the tenth hour of training, David, Flo and their friends had gained more understanding about computers – what they were and how to use them – and earlier discussions on how computers could make the learning processes easier were revised.



Teacher David Issaka explains how to search the Internet

With new confidence and knowledge, Florence suggested that students be allowed to explore more on the World Wide Web, and store their findings on some medium to take along to Saboba, with the wish that the school computer



Students quickly learned how to participate in online discussions

lab setup would be completed quickly and, if possible, the school be connected to the Internet.

Some teachers thought that most secondary schools were not able to complete syllabus in good time because so much time is spent either dictating notes to students or writing notes for students to copy. They admitted that this not only retards their progression, but also leaves room for many errors in the notes taken. It was therefore suggested that teachers should rather type and print their notes for stu-



Practice time: David, Florence and their classmates make use of their new typing skills

dents. At this stage, David had had enough self-confidence as to volunteer to type his tutors' notes using a computer.

These examples show that, although the 'Information Literacy in Secondary Schools' programme in northern Ghana has been running for only a little over two months, already most St Joseph's students like David can now claim "I am now a very different person." With some more months to go, it is certain that more positive changes in students will be apparent by the end of the programme.

### Life After Information Literacy Training in Northern Ghana

Despite this progress in terms of individual capacity building, a few issues remain unsolved, as, after September 2006 when the CITRED training will have finished and David and Florence will be sufficiently ICT literate, they will lose access to computers connected to the Internet. This means that they will lose the opportunity to continue communicating with the friends they have made online; they will not be able to continue the ongoing online discussions they have joined or initiated, and they will not even have the opportunity to see their own pictures that have been

placed on the web portal for the programme. With no functioning facilities at their school, and without additional funding, they will be unable to continue their personal development.

However, on a more positive note, they *will* return to Saboba adequately skilled in and exposed to ICT so that when the right conditions finally arrive, they will have the opportunity to share their knowledge and revolutionize the way their peers think about ICT in general and in education in particular. Surely, participating in the UNESCO Information for All Programme has been a life-changing experience for these young students. ■

## Young Women Leaders and ICT

### Young Women’s Leaders Project (YWLP)

(IFAP Project 269, Code 461UGA5000)

<b>Contractor</b>	Forum for Women in Democracy (FOWODE), Kampala, Uganda
<b>Country of Implementation</b>	Uganda
<b>Funding</b>	US\$ 24,805
<b>Project Partners</b>	<ul style="list-style-type: none"> <li>■ Ford Foundation;</li> <li>■ Humanist Institute for Cooperation with Developing Countries (HIVOS)</li> <li>■ United Nations Development Programme (UNDP)</li> <li>■ United Nations Development Fund for Women (UNIFEM)</li> </ul>
<b>Goal</b>	To promote information literacy through capacity building for young women leaders in Uganda
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Training young women leaders in basic computer use and online research;</li> <li>■ Training young women leaders in ICT and governance issues;</li> <li>■ Reorganizing, updating and computerizing FOWODE’s library.</li> </ul>

**Uganda** has witnessed an increase in women’s participation in public leadership over the last ten years, both in terms of numbers and quality. The 1995 Uganda Constitution is primarily responsible for this positive development. The process that ushered in this Constitution included women delegates from all of Uganda’s districts who ensured that women’s participation was enshrined in the new laws of the land. The Constitution provides for women to have 30 percent of representation at any administrative level, from the village to the national assembly.

Subsequently, the Forum for Women in Democracy (FOWODE) was inaugurated in 1995 to build the leadership capacity of women brought into decision-making, mainly as a result of affirmative action. FOWODE set up a resource centre to build women’s skills in public decision making and to advocate the enshrinement of gender equality in laws, government policies and programmes.

One of the programmes run at this resource centre is the Young Women Leaders Project (YWLP), creating a space for women between the age of 18 and 20 to reflect on and investigate various themes related to gender, governance, violence, sexuality, culture, development and social justice. The main objective of YWLP is to create a democratic space, transforming young women leaders into change agents and leaders with a vision of an alternative world where there is gender equality and justice for all. Each year, young women are brought together to reflect on and think critically about a range of important issues such as those mentioned above.

As today's leadership in developing countries also has to make important decisions about integrating ICT into development initiatives, the young leaders need to be aware of ICT-related issues and opportunities. They must also be familiar with using ICTs themselves, and learn that ICT offers career opportunities for women as much as it does for men.

An IFAP-supported mentoring project, seeks to demystify information technology and enable women leaders identify with it by equipping them with the basic skills required to comfortably engage in the Information Society; underlining how participants' access to information impacts on leadership; and stimulating the participants to play an active role in the Information Society.

Nakiryowa Hellen, a participant of the training, stresses

I learnt a lot about the qualities of leadership, the values one should have, the responsibilities of leaders to

themselves and to others, the role of young leaders in society and what one should expect as a leader as well as what is expected of one as a leader. I have also learnt to have the desire to discover things on my own and this has mainly been through the research sessions on the Internet. After finding information it has been up to me to make my own conclusions.

Today, the young women leaders know how to search for information on the Internet, all participants have an email address, process documents using a computer programme, and interact with a leading woman in the field of information and communication technology.

I have to give credit to the wonderful lessons we have had about communication skills. One of the interesting things I learnt was the use of computers and the Internet. I have realized that the best gift someone can offer is knowledge.

(Dorah Avako, training participant)



Young women leaders explore the Internet

However, since Internet cafes are expensive and students cannot afford to regularly use them, access to the new medium had been very restricted, resulting in the rental of computer labs by FOWODE to enable the young women to use the Internet. Through IFAP funds, FOWODE was now able to computerize its library and install wireless computer connectivity. The young leaders can now work in the comfort of the library and explore the Web without time limitations.

Furthermore, IFAP funds enabled FOWODE to update its library, which today contains about 1000 books on various topical issues, accessible to all leadership alumni whenever they are in the capital city Kampala.

With the IFAP funds, a visit to organizations dealing with ICT and governance in the East African sub-region is currently underway, and will take the young leaders to the headquarters of the East African Community in Nairobi and Arusha. Through this experience, it is anticipated that the young leaders' knowledge and understanding of ICT in governance will be further broadened.

Integrating information communication technology into the mentoring process has served to enrich the curriculum, and to introduce and link the young leaders to the global Information Society. ■

# TermTrain – Design and Implementation of Practice-Oriented Terminology Training for ICT Trainers and Language Trainers in Language Communities of Africa

## Design and Implementation of Practice-oriented Terminology Training for Two Groups of Information Professionals: ICT Trainers and Language Trainers in Language Communities of Africa

(IFAP Project 306, Code 461RAF5001)

<b>Contractor</b>	International Network for Terminology (TermNet) Vienna, Austria
<b>Country of Implementation</b>	Africa
<b>Funding</b>	US\$ 35,000
<b>Project Partners</b>	<ul style="list-style-type: none"> <li>■ National Language Service of the Department of Arts and Culture of South Africa (NLS of DAC)</li> <li>■ Pan South African Language Board (PanSALB)</li> <li>■ African Association for Lexicography (AFRILEX)</li> <li>■ Standards South Africa (StanSA)</li> <li>■ Institute for Information Management (IIM)</li> <li>■ Lessius Hogeschool, Belgium</li> </ul>
<b>Goal</b>	To enhance capacity-building in the field of specialized language and specialized knowledge for language communities in Africa through a generic train-the-trainer pilot project
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Analysing the situation of language communities in Africa and comparing with good practice worldwide;</li> <li>■ Developing and adapting corresponding terminology training courses for ICT and language trainers based on the findings of the activity above;</li> <li>■ Performing training courses in South Africa in March 2006: one for ICT trainers, one for language trainers, each with a max. of 25 participants from various African countries;</li> <li>■ Evaluating training and fine-tuning the content of training courses;</li> <li>■ Establishing an expert and trainer pool with regional and international trainers;</li> <li>■ Networking, information and awareness raising events, dissemination of project results.</li> </ul>



“**South Africa** has eleven official languages. The challenge is to translate this constitutional provision into a living reality.”

(Pallo Jordan, South Africa’s Minister of Arts and Culture)

This is what terminology training in (Southern) African countries is all about: to empower language practitioners and information professionals to translate human rights into reality, such as the access to legal and other public information in people’s mother tongues.

The document *Guidelines for Terminology Policies*,<sup>13</sup> prepared by Infoterm for UNESCO in 2005, underlines the connection between equal rights, the use of mother tongue and terminology development:

People whose mother-tongue is not (or not sufficiently) developed from the point of view of terminology and special purpose languages (SPL) or who are denied the use of their mother-tongue in education and training, for accessing information, or interacting in their work places, tend to be disadvantaged [...] The digital divide almost invariably co-occurs with inequality of access to information and knowledge, which is in turn associated with inequality in linguistic access. Inadequate terminology is one key factor in the inequality of linguistic access, and it results in ‘functional illiteracy’ in the contexts of accessing information and using computers.

(*Guidelines for Terminology Policies*, Preface, V)

The language we use and need to understand in public and business life is less

“general language” than “specialized language” characterized by the terms of the respective subject fields (e.g. legal texts, parliament speeches, court terminology, science and technology, etc.).

The most important part of translating the South African “constitutional provision into living reality” is to develop terminology in the indigenous languages of African language communities. An impressive example of applied terminology is the Telephone Interpreting Service for South Africa (TISSA), being an initiative of the National Language Service (NLS) within the Department of Arts and Culture (DAC) and jointly funded by the Pan South African Language Board (PANSALB).

TISSA intends to make it possible for each individual to communicate with the authorities in his or her own language, for example in places such as hospitals, police stations and government offices. The service enables citizens of South Africa, especially African language speakers, to overcome language – and terminology – barriers and to have equal access to government services.

How does TISSA work? If a doctor and patient, for example, cannot understand each other’s languages, they can call a single toll-free number which links them to a call centre where an operator connects to an interpreter who can speak both of their languages. All that is required is a telephone with a speaker, or two telephones plugged into the same socket, so that both can listen to the interpreter.<sup>14</sup>

Needless to say that terminology and terminology development play a crucial role

in services such as TISSA. Without terminology training and terminological methods and tools, the interpreter would not be able to do his or her challenging and most important job. The ability to understand and create specialized language and specialized knowledge – i.e. terminology – is a key qualification of information professionals and language practitioners. There is no information literacy without terminology literacy. This applies to all levels of information and knowledge creation, storing and processing – ranging from basic terminology teaching and training in primary and secondary schools to applied terminology in multilingual data modelling and content management for sophisticated ICT industries and Human Language Technologies (HLT).

An ambitious project of terminology development is performed by the Unit for isiXhosa in Stellenbosch University's Language Centre:

The idea of the project is to develop isiXhosa as an academic language, but in an integrated way – the terminologies are developed in close collaboration with the different academic departments and faculties to ensure that the terminology of the day in each of these institutions are accommodated. These lists, for students who have isiXhosa as their mother tongue, provide an academic 'scaffolding' that helps with the acquisition of important academic concepts. (*kampusnuus*, 10 February 2005: 5)

In this project, an electronic database has been created for managing the developed terminologies and the first two terminolo-

gy lists, 'Generic Academic Terminology' and 'Generic Administrative Terminology' – both trilingual (Afrikaans, English and isiXhosa) – have been launched. While a third list, 'Faculties, Departments and Academic Divisions', has been published electronically,<sup>15</sup> other terminology lists are soon to follow, such as for psychology, law, social work and sociology.

Examples of encouraging results and developments can also be found in the field of ICT and HLT. The Centre for Text Technology at the North West University in South Africa has released four new spellcheckers in indigenous languages – Setswana, isiZulu, isiXhosa and Sesotho sa Leboa. Additionally, an Afrikaans spellchecker was released last year. The centre underlines that software development is "not only sustaining human language technology (HLT) in South Africa, but also fighting the battle to ensure that every citizen's language rights are upheld."<sup>16</sup>

The overall goal of the IFAP project "TermTrain – Design and implementation of practice-oriented terminology trainings for ICT trainers and language trainers in language communities of Africa" is to foster all these promising projects and initiatives. The project seeks to assist and empower the people involved by performing a generic train-the-trainer pilot project for capacity-building in the field of specialized language and specialized knowledge for language communities in the Southern African Development Community (SADC member states).

Already a pilot training course was held over four days in September 2005 in Johannesburg, within the framework of

the event “Advancing Multilingualism through Terminology Development” and sponsored by the Department of Arts and Culture of South Africa. The course included a four-days training on the basic principles of terminology and terminography,<sup>17</sup> and was very well-received, as reactions from participants show:

Thank you for your wonderful presentations in Johannesburg, South Africa. I always made sure that I don't miss them, because as I told you when I asked for your email, I am leading the Unit for isiXhosa and mainly responsible for promoting isiXhosa as an academic language. I have a huge task of developing terminology...

(Pumlani Merrington Sibula)

Thank you so much for the training session that was eye opening for us. I hope we will use the knowledge we gained at the workshop to conduct more terminology projects in a cost effective manner.

(Gugu Mkhize)

For a sustainable impact of the project activities, TermTrain's main target group for terminology trainings comprises those most relevant and professional trainers of languages and ICT who act as subject advisors and curriculum facilitators on behalf of Governmental departments. Some 50 professionals are expected to undertake terminology training, comprising 25 language and 25 ICT facilitators. Considering the fact that the majority of ICT trainers usually are men, while the majority of language trainers are women, aspects of gender equality and empowerment of women will be included in the design of the training courses.

After the analysis of terminology training in language teaching and ICT teaching worldwide, and the examination of good practices worldwide, practice-oriented and tailored terminology training courses will be developed and adapted based on the findings of the analysis. After the trainings will have been performed in March 2006, they will be evaluated and content will be refined for future applications. To reach multiplying effects and

Finalization of the training programme  
From left to right:  
Mapula Gaffane (Terminology Coordination Section, South Africa),  
Rika Koekemoer (Department of Arts and Culture, National Language Service (NLS)),  
Bassey Antia (Department of Languages and Linguistics, University of Maiduguri, Borno State, Nigeria)





Xolile Mfexa (Head of the Terminology Co-Ordination and Language Planning Directorate of NLS) and his team are preparing an announcement for the trainees



Tricky technology and terminology - one trainer (Bassey Antia) helps the other (Hendrik Kockaert)

sustainability an expert and trainer pool will be established and the project results will be disseminated and promoted via worldwide networks, within the project consortium and UNESCO. ■

<sup>13</sup> The *Guidelines for Terminology Policies* are available at <http://unesdoc.unesco.org/images/0014/001407/140765e.pdf>.

<sup>14</sup> For more information, see [http://www.dac.gov.za/about\\_us/cd\\_nat\\_language/language\\_planning/tissa/english.htm](http://www.dac.gov.za/about_us/cd_nat_language/language_planning/tissa/english.htm).

<sup>15</sup> The list is available at the Language Centre's web site at <http://www.sun.ac.za/taalsentrum>.

<sup>16</sup> [http://www.puk.ac.za/opencms/export/PUK/html/nuus/nuus169\\_e.html](http://www.puk.ac.za/opencms/export/PUK/html/nuus/nuus169_e.html) (Accessed 12.12.2005).

<sup>17</sup> For more information see [http://linux.termnet.org/index.py?level=level2&id=102&lang=\\_en](http://linux.termnet.org/index.py?level=level2&id=102&lang=_en).

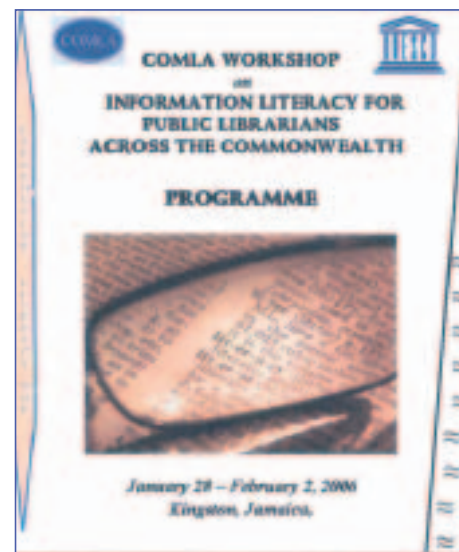
## Information Literacy for Public Librarians Across the Commonwealth

### Information Literacy Training Programme for Public Librarians across the Commonwealth

(IFAP Project 450, Code 461INT5001)

<b>Contractor</b>	Commonwealth Library Association (COMLA), Jamaica, West Indies
<b>Country of Implementation</b>	Africa, Asia, Americas and the Caribbean, Europe, South Pacific
<b>Funding</b>	US\$ 44,000
<b>Project Partners</b>	<ul style="list-style-type: none"> <li>■ National Library Associations and National Public Library Boards within the regions</li> </ul>
<b>Goal</b>	To promote information literacy through capacity building, particularly for public librarians and other information professionals
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Collaborating with National Library Associations/National Library Boards to organize training workshops to cover the following key areas: Internet usage skills, web authoring and development, developing digital libraries and computer trouble shooting for librarians;</li> <li>■ Developing training kits, resources and manuals covering the above areas, to assist in the training of librarians;</li> <li>■ Developing kits, resources and manuals that librarians could use to develop their own training programmes for their communities;</li> <li>■ Holding thematic conferences during Standing Conference of Eastern, Central, and Southern Africa Library and Information Associations (SCECSAL), Standing Conference of African University Libraries West Africa (SCAULWA), Association of Caribbean University, Research and Institutional Libraries (ACURIL), Congress of Southeast Asian Librarians (CONSAL) and other groupings to educate, inform and help librarians influence national policy on universal access.</li> </ul>

**Information and knowledge** are increasingly becoming critical factors in the creation of the wealth of nations. Librarians, particularly public librarians, provide opportunities for all to access and make use of information and knowledge so that library users could become significant



contributors to such nation building. As public libraries offer services to all sectors of society in all parts of a country, for many average or less privileged citizens, public libraries remain bastions of information access. Until the average citizen is empowered by information, education and knowledge, developing countries risk not achieving many of the Millennium Development Goals. What is clear is that focused intervention is needed at many levels to bring about changes that are sustainable. The Commonwealth Library Association is one of the groups interested in bringing about such change with the support of the Information for All Programme.

Founded in 1972, COMLA is a group of library associations spread throughout the Commonwealth and is funded by the



Children in a Jamaican Public Library

Commonwealth Foundation. COMLA seeks to promote the interests of libraries and librarians, and facilitate networks for information access and delivery. Its membership consists of public, school, university, and special library associations and institutions throughout the Commonwealth. Many member countries of the Commonwealth were former colonies of the British Empire and hence share common traditions and customs, as well as the use of the English language, although individual members also have their own indigenous languages. COMLA's strategic plan for 2004-2006 highlights information literacy training as one of the key interventions that can help influence access to information for development.

Jamaica Library Service Branch Library



The association therefore seeks to enhance and improve the impact of information literacy initiatives by training both trainers and users of information, for them to become efficient and effective in searching for and finding the right information at the right time to satisfy a particular need.

The idea of organizing an international workshop on information literacy to train trainers developed over the past several years, concurrently with developments in ICT that precipitated dramatic changes in the ways clients seek and use information. Whereas previously, print resources were mainly used to facilitate information gathering, today, computers, CD-ROM databases, online databases, and the Internet in general offer great opportunities for accessing information. Therefore, information stewards like librarians and archivists must themselves have the potential to build the information literacy capacity of others.

The need to equip public librarians with appropriate skills relating to digital information resource management and the provision of Internet-based library and information services is therefore crucial. With these skills, they will be able to make innovative use of the Web and of new technologies in the provision and development of public library services for greater impact.

Public libraries can be found in all developing countries and some are equipped with computers that have Internet access. As some schools do not have a computer lab or enough computers to facilitate the needs of the school population, students from primary and high schools, and com-

Internet Access  
in a Public Library



munity colleges can use these libraries to do their research for class work and examinations, or for recreation. Such students, especially those from rural areas, often experience problems in accessing information on the Internet. This is largely due to the fact that they do not have computers at home or, if they do, are not linked to the Internet. As a result, they have no knowledge of how to access a website nor how to narrow their search in order to find specific information. Most of them have never used a catalogue and so much time is wasted in their quest for knowledge.

Situations like these highlight the need for public libraries to become leaders in teaching information literacy skills so that users can seek information effectively. However, librarians are often not sufficiently trained to meet this need. With the support of IFAP, COMLA therefore organized a workshop to equip librarians with skills to make innovative use of the Web, to help them develop information literacy programmes for their users, and to lobby and advocate for the inclusion of libraries into national plans so as to benefit from universal access funds.

Prior to the seminar, librarians from Jamaica and Uganda worked on a set of draft modules for the workshop, covering all areas of information literacy but particularly considering areas which librarians previously indicated as being of great interest to them: Internet usage skills, web authoring and development, development of digital libraries and computer troubleshooting for librarians.

In advance, participants were asked to prepare a brief report on user education practices in the public libraries in their home country. Furthermore they were required to bring along case studies, best practices, brochures or samples of programmes (print and electronic) currently in use in their libraries, to share with other participants. One participant replied,

I have visited a good number of public libraries in [...] recent months and any user-education practices could not be found (apart from some instructions on how to use the library, in some libraries, not all). I am aware of some leaflets available at the Central Public Library and will bring these along [...] This, in itself, is highly indicative of the restricted vision that exists at local level. The vast majority of authorities and unfortunately, library and information workers themselves, still perceive the library as a book circulation outlet ONLY. I have, in my recent M.Sc dissertation, done research on the information literacy skills of [...] library and information workers, and can in the forthcoming workshop, present my results for discussion in a power point presentation.

After a manual and kit, developed by the librarians, have been accepted by UNESCO, selected library associations across the Commonwealth will be asked to use the manual to organize workshops for the benefit of their Library Association's members. A small grant will be given to model associations who, in collaboration with their National Library Boards, will organize workshops on information literacy which cover the key areas of the manual. This way, training experiences will be opened to far more people than have attended the seminar and training kits can be developed according to the needs of local communities. Additionally, thematic conferences are planned, to be held during the Standing Conference of Eastern, Central, and Southern Africa Library and Information Associations (SCESCAL), the Standing Conference of African University Libraries West Africa

(SCAULWA) and the Association of Caribbean University, Research and Institutional Libraries (ACURIL), so as to educate, inform and help librarians influence policy on universal access to information.

Although the high cost of airfares has limited the number of participants able to directly participate in the international workshop to 35, these participants came from diverse regions of the world: Africa, Asia, the Caribbean and the South Pacific. With the work undertaken prior to the workshop and the enthusiastic responses of prospective participants, it was clear that the outcomes would be positive and that the training programme would deliver the expected benefits to public library trainers, who will now pass on these benefits to library users and their communities. ■



## Information Literacy Capacity Building for Vietnamese Academic Librarians

### Information Literacy Capacity Building for Vietnamese Academic Librarians

(IFAP Project 247, Code 461VIE5000)

<b>Contractor</b>	Hanoi University of Foreign Studies, Hanoi, Vietnam
<b>Country of Implementation</b>	Vietnam
<b>Funding</b>	US\$ 25,000
<b>Project Partners</b>	<ul style="list-style-type: none"> <li>■ Hanoi University of Foreign Studies</li> <li>■ Australian Development Scholarship Centre Library</li> <li>■ Vietnam Development Information Center</li> </ul>
<b>Goal</b>	Capacity building for selected Vietnamese information specialists within academic learning communities across Vietnam to promote and deliver training in skills for accessing and using available information and knowledge resources
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Development of pre-course readings and guided exploration of the practice of information literacy in academic environments;</li> <li>■ Roundtable meeting of all participants;</li> <li>■ Post-workshop reporting against individual action plans and networking activities.</li> </ul>

**In Vietnam,** libraries exist across all education sectors (primary to tertiary). However, the benefits pupils and students can obtain from libraries are generally not adequate for their information needs, as school and university libraries are under-resourced and hence proffer poor support. While the library and information systems and networks are underdeveloped, there is also a lack of information specialists trained to international standards, and of an articulation or promotion of information literacy policies and programmes. As a result, library users are not educated about the nature of information, nor about ways to access and effectively use information to promote lifelong learning. For example, a survey of over 1,000 first year students at Hanoi University of Foreign Studies in 2004 showed that 97 percent of them did not know how to use a library and an open public access catalogue (OPAC).

While information literacy programmes are not likely to be introduced in school libraries in Vietnam in the near future, there is an urgent need to equip at least higher education students in Vietnam with information literacy skills which will be essential for them in their student and working lives. A project funded by the Information for All Programme is therefore of great support for selected Vietnamese academic library professionals to inform, promote and deliver information literacy skills for accessing and using available information and knowledge resources within their learning communities. The project is run jointly by the Hanoi University of Foreign Studies (HUFS), the Australian Development Scholarship (ADS) Centre Library, and the Vietnam Development Information



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Through IFAP support Vietnamese librarians will be able to conduct information literacy classes themselves, replacing foreign library volunteers currently conducting the classes the Hanoi University of Foreign Studies

Center (VDIC). Participants are selected librarians and information specialists from various universities and colleges around Vietnam.

At a ten-day roundtable meeting at the Hanoi University of Foreign Studies, participants will engage more deeply with information literacy. Interactive and participative video conferences with international experts will help participating librarians develop a set of preconditions for information literacy development together with a group action plan specific to Vietnamese academic communities. They will also develop institutionally-based action plans to implement information literacy awareness and skills in their specific learning communities. Lastly, post-workshop reports will be made to assess the implementation of action plans and Vietnamese access to information and learning resources.

At the end of the project, it is expected that participants will have a current and comprehensive understanding of the information literacy paradigm. They will know

more about possible models of information literacy skill programmes in academic learning communities, as well as about the status of and challenges to the delivery of information literacy skills in Vietnam. They should also know how to use this knowledge to train other professionals and create multi-level networks.

As the project title proposes, the project will contribute to the capacity building of the librarian group and strengthen skills such as the capacity to devise an information literacy promotion action plan, and to implement an information literacy promotion action plan at their home institutions. ■



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Vietnamese tertiary students are eager to acquire basic knowledge and skills for searching for information, using library and databases

# Infoethics



**Raising** awareness about ethical principles is central to achieving an equitable presence in, and access to, cyberspace. Undeniably, embracing coherent ethical guidelines is essential to the process of building Knowledge Societies. Hence, the definition and adoption of best practices and voluntary, self-regulatory, professional and ethical guidelines should be encouraged among media professionals, information producers, users and service providers, with due respect to freedom of expression.

The main question relates not only to the ethical issue of the imbalance between those who have and those who do not have access to information and knowledge, but also to the many specific challenges faced in the process of producing, maintaining, increasing and accessing information. The national policies elaborated to support freedom of information confirm the requirement to adopt a coherent approach in dealing with the ethical aspects of making the information available to the public.

Since 1997, UNESCO has initiated a series of events enabling specialists and decision-makers to address the ethical dimensions of the Information Society. The main goal of the UNESCO INFOethics Congresses, organized in 1997, 1998 and in 2000, was to stimulate reflection and debate on the ethical, legal and societal aspects of the Information Society by bringing together participants from the largest possible number of countries, representing the widest range of educational, scientific, cultural and social environments.

After several years of intensive work, a specific framework for legal and ethical actions was created and formalized with



Freedom of expression arriving in Kabul: a newspaper seller arranges the Kabul Weekly

the adoption by the UNESCO's Members States in 2003 of the first normative instrument in this field, entitled the *Recommendation Concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace*.<sup>18</sup> Besides incorporating all relevant aspects of infoethics of concern to UNESCO, to its partners and to its Member States, the adopted Recommendation gave an impetus to the awareness raising effort on the subjects covered by the document, as well as to its translation into concrete actions at national levels.

Pursuant to these initiatives, UNESCO now continues to work in an area of infoethics by addressing questions such as:

- What are the technical and technological developments on the horizon in ICT and what special concerns – in terms of impacts on people – do they provoke? What are the legal, social and ethical implications of recent technical developments?
- Should ethical principles supplement the application of technical solutions to reassure the users of electronic communication tools? Do we apply the same ethical values to creators, servers and users of digital information?

- What are the common basic principles of ethics which should be promoted in the globalization process?
- Who owns information content and knowledge and the channels through which information is transmitted and how should an equitable balance between the interests of rights-holders and the public be reaffirmed?
- Who is responsible for the authenticity, integrity and accuracy of information?

The ethical imperatives in the Information Society are obvious, but their application remains a great challenge. IFAP, as other

concerned entities and bodies, therefore seeks to make sure that information and communication technologies, and the information transmitted, are used to empower people and enhance the respect and dignity of human beings.

In this chapter, the concept of infoethics will be further discussed, through a summary of the key aspects of IFAP's thematic debate and the presentation of three expert papers. Reports on selected projects implemented with the support of the Information for All Programme will then demonstrate some of the developments in the area of infoethics around the world. ■

## Experts speaking



## Setting the Frame: IFAP Thematic Debate

### Speakers

■ **Claire Balfour**

New Zealand, "Educating for Internet Safety"

■ **Dietrich Schüller**

Austria, "Ethical Principles of Audiovisual Archiving"

■ **Guillaume Chenevière**

President, World Radio and Television Council  
"What can we learn from the Television Age?"

■ **Jonathan Robin**

Vice-President, IPv6 Task Force France  
"Overview of Ethics and Convergence in Emerging Technologies for a Seamless Society"

■ **Marcello Scarone Azzi**

UNESCO Division for Freedom of Expression, Democracy and Peace,  
"Freedom of Expression in Cyberspace"

■ **Simone Scholze**

UNESCO Division of Ethics of Science and Technology,  
"Professional Deontology and Ethics"

■ **Stuart Hamilton**

IFLA Committee on Free Access to Information and Freedom of Expression (FAIFE)  
"Professional Principles for Free Access to Information"

**On 15 September** 2005, more than 40 experts, including IFAP Bureau members, academics, representatives from NGOs, media professionals, and UNESCO staff, debated the topic of infoethics at UNESCO Headquarters in Paris.<sup>19</sup>

Opening the debate, Elizabeth Longworth, Director of UNESCO's Information Society Division, underlined the "need to embrace coherent ethical guidelines in the process of building Knowledge Societies" – a concept UNESCO has successfully promoted throughout the process of the World Summit on the Information Society. The central questions leading the thematic debate were clear: What aspects of infoethics are within UNESCO's mandate? What initiatives can UNESCO help to promote in the future?

Member States' representatives and invited experts shared their experiences in the field of infoethics and agreed on a list of major ethical challenges for many countries, including access to information networks and services, copyright, protection of privacy on global networks, the availability of local content and freedom of expression in electronic media.

The collective expertise of the debate's participants helped the IFAP Bureau and the UNESCO Secretariat to develop strategies and actions in the area of infoethics. Promoting awareness of the multiple facets of infoethics was identified as one major strategy. Participants stressed that people need to be conscious of human rights issues with respect to the Internet, of the social impacts of emerging technologies, and of possibilities for digital preservation, for instance.



Marcello Scarone  
from UNESCO elaborating  
on freedom of expression  
in cyberspace

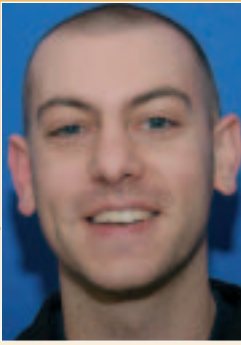
The education of information producers, information mediators and information users for ethical behaviour has been identified as just as important a strategy. Regarding the Internet, Claire Balfour, from the New Zealand Internet Safety Group (ISG), demonstrated to the audience how people can be taught to safely surf through cyberspace with the NetSafe Kit<sup>20</sup>. Moreover, much attention was paid to information professionals from the production and dissemination side who should be encouraged to apply ethical principles in their everyday work environment.

The debate generally underscored that ethical issues in the Information Society remain a great challenge. Participants concluded that much more effort needs to be made to ensure that information and communication technologies, and the information transmitted by them, are made accessible to all people in order to assist development, empowerment and the achievement of human rights. ■

19 The debate took place within the framework of the 9th meeting of the Bureau of the Intergovernmental Council for the Information for All Programme. A comprehensive report of the thematic debate is included in UNESCO. Information for All Programme (IFAP). Thematic Debates of the Bureau of the Intergovernmental Council for the Information for All Programme. Issues and Outcomes. Edited by Laurence Zwimpfer (New Zealand) - Paris: UNESCO, 2005. - i, 26 p. ; 30 cm. (CI-2005/WS/6). The report can be accessed at <http://www.unesco.org/webworld/ifap/debates>. Papers of the debate can be accessed at [http://portal.unesco.org/ci/admin/ev.php?URL\\_ID=19980&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=-465](http://portal.unesco.org/ci/admin/ev.php?URL_ID=19980&URL_DO=DO_TOPIC&URL_SECTION=-465).

20 Internet Safety Group, New Zealand, <http://www.netsafe.org.nz> (accessed 01.12.2005).





**Stuart Hamilton**

International Federation of Library Associations and Institutions (IFLA)/Free Access to Information and Freedom of Expression (FAIFE) Researcher

## Librarians' Professional Principles for Freedom of Access to Information in the Age of the War against Terror

**As the Information Society** becomes more of a reality, library and information professionals are facing increasingly complex challenges about how freedom of and access to information can be protected in the digital age. While the latest information and communication technologies bring new opportunities for document delivery, interlibrary cooperation, knowledge transfer and information access, the old obstacles to freedom of access to information for all library users remain. Censorship, whether imposed on a national or local level, still exists in many parts of the world, and the challenges of preserving citizen safety in the age of the war against terrorism present library and information workers with many dilemmas regarding user privacy.



Library and information workers are currently faced with many dilemmas regarding user privacy

In such circumstances, the growing importance of ethical considerations to the international library community cannot be underestimated. While the American Library Association adopted a code of ethics in 1938, it was not until the second half of the twentieth century that most other library associations followed suit. As the library profession develops and the number of issues faced by libraries expands, the need to take into account ethical approaches to information provision has increased. For example, a shortlist of potentially divisive issues with ethical aspects would include globalization,

the digital divide, the increasing commercialization of information, the privatization of public information, privacy, authenticity, confidentiality, censorship, copyright, intellectual property rights and the consequences of the General Agreement on Trade in Services.

Most recently however, the international library community has been concerned with the question of protection of individual privacy versus the promotion of public safety in the age of the war on terror. Library listservs worldwide have debated how librarians can contribute ethically to public safety without abandoning our responsibility to intellectual freedom. Librarians have been facing problems regarding user confidentiality as law enforcement agencies seek new powers to access the electronic records of library patrons. The following comment, made anonymously on a list-serv, provides an example of an ethical dilemma facing librarians at this point in time:

I am a strong advocate of freedom of access to information and intellectual freedom; but sometimes I stop to think: What could be my contribution as a LIS professional, in stopping terrorism, for example? I know I would be the best person to spy on and supply vital information to the authorities about any suspicious activities of my clients, but the current ethics won't allow it! How else can I contribute ethically?<sup>21</sup>

This comment is interesting because of the strong connection between US libraries and the events of 11 September 2001. In the weeks before the terrorist attacks, individuals who would later be

named as hijackers supposedly used computers in several Florida libraries. While it has never been proven beyond doubt that the hijackers used the library computers to facilitate the attack, public libraries became connected with the events. After 9/11, Broward County library patrons and employees called the police saying they thought a man fitting Mohammed Atta's description had used library computers. A research librarian at Delray Beach also called the police after she recognized one of the hijacker's pictures in the media – notifying them that he had been in the library.<sup>22</sup> According to Judy Matthews at Michigan State University, the librarian's actions violated the law protecting the confidentiality of patron activities – and would have violated the law in 47 other states as well as the District of Columbia.<sup>23</sup>

Elsewhere, it has been alleged that libraries played a central role in the hijackers' preparations in Germany.<sup>24</sup> According to German prosecutors, a suspect in the hijackings had boasted to a German librarian in Hamburg about a potential attack more than a year before 9/11. What should librarians do in these situations? Of course, being told directly about a potential terrorist attack is one thing, but a patron acting suspiciously is another. In Florida privacy laws were violated *after* the attacks in order to aid a national security investigation, a case of a library staff member having to reconcile her responsibility as an employee of a public library with her responsibility as a citizen. But what if, as suggested by the Ugandan listserv member, the new climate of the war against terror requires the re-evaluation of long-held beliefs about user privacy? Librarians face a right-versus-right dilemma: it is right to support the commu-

nity/ nation's quest for security and law and order, but it is also right to honour confidentiality as it is found in librarians' professional codes. Is it true, that when national security is threatened it makes no sense to give individual interests primacy over the public's need to have foreign enemies thoroughly investigated? Or, as Mark Hudson puts it, "in the era of corporate globalisation, 'War on Terrorism' and the Patriot Act, [has] the social responsibilities question [...] taken on new urgency because the very survival of the library as an alternative sphere of democratic culture may be at stake?"<sup>25</sup>

Questions such as this illustrate the difficulties librarians are facing, and also the importance of responding in an ethical way that takes into account the needs of our users. The IFLA/FAIFE World Report 2005 shows that more library associations around the world are drawing up codes of ethics for their members, designed to give guidance to librarians faced with tricky situations where user privacy and librarian integrity is being called into question.

These documents can help remind the library profession of the importance of ethical and principal positions in the Information Society. They codify approaches to information access and user privacy in a way that librarians can make difficult decisions safe in the knowledge that their profession will stand behind them. They let us state unequivocally that libraries should facilitate unrestricted access to information and freedom of expression for our users, and protect their privacy so they can feel certain their information-seeking choices remain confidential. Librarians must be committed to showing

the importance of the library conception of ethics because our approach to information access is one that will yield benefits for all library users and seekers of information. In a world where freedom of expression and freedom of access to information is under pressure in both developed and developing countries there is so much at stake, it is essential that the international library community has a clearly defined set of principles from which to make its point. ■

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21 Batumbuze, C. (cbatambuze@nlu.go.ug). (April 15, 2005). [FAIFE-L] SV: [Uganda\_LibAssoc] Free access to Information. Email to Stuart Hamilton (sha@db.dk).

22 Sears, R. (2001): "Librarians face new issues in patron confidentiality." In: New York Times. [Online]. [http://www.infoshop.org/alibrarians/public\\_html/article.php?story=01/12/12/3987276&mode=print](http://www.infoshop.org/alibrarians/public_html/article.php?story=01/12/12/3987276&mode=print) (accessed 18.04.2005).

23 Matthews, J. and Wiggins, W. (2001): "Libraries, the Internet and September 11th." In: First Monday. [Online]. [http://www.firstmonday.org/issues/issue6\\_12/matthews/index.html](http://www.firstmonday.org/issues/issue6_12/matthews/index.html) (accessed 11.04.2005).

24 DeVise, D. (2002): "Terror hunt may end privacy at the library." In: The Miami Herald. [Online]. <http://www.miami.com/mld/miamiherald/news/3979136.htm> (accessed 18.04.2005).

25 Hudson, M. (2004): "US Libraries and the 'War on terrorism.'" In: New Politics, vol. 10, no. 1, whole no. 37, Summer 2004. [Online]. <http://www.wpunj.edu/~newpol/issue37/Hudson37.htm> (accessed 18.04.2005).

## Infoethics and Convergence of Emerging Technologies for the Seamless Society

**From December 2002** to January 2003, UNESCO sponsored an online Discussion Forum for Civil Society about the World Summit on the Information Society.<sup>26</sup> The purpose was to enable NGOs to offer their proposals for the Summit around a number of themes agreed upon through several preparatory meetings. Among the concrete recommendations in respect of emerging technologies, three points anticipated issues raised during the IFAP thematic debate on infoethics in September 2005.

- Legitimate governmental security concerns should not compromise individual rights to privacy and communications;
- Intergovernmental and governmental authorities should integrate emerging ICT convergence;
- The UN system should establish an observatory for emerging communication and information technologies, to allow all stakeholders in the Information Society equal access to future available resources, to monitor change and avoid duplication.

Equivalent recommendations have also been made by the European Science Foundation: "For the European Union, an important step ahead would be the creation of a **societal observatory of converging technologies** [...] The primary mission of this observatory is to study social drivers, economic and social opportunities and effects, ethics and human rights dimensions. It would rely on a standing committee for real-time monitoring and assessment of international converging technologies research, as a clearing house and platform for public debate." (Françoise Roue, Vice President of

the Council General for Information Technologies (CGTI), France)

UNESCO has acknowledged the priority nature of the above, and poses the question "What are the technical and technological developments on the horizon in ICT and what special concerns – in terms of impacts on people – do they provoke? What are the legal, social and ethical implications of the recent technical developments?" The Organization has recognized the strategic need both for itself and for NGOs to integrate emerging technological convergence.

Mobile IP and the progressive migration to IPv6, Radio Frequency Identification (RFID) and innovations in mobile technologies are preparing a paradigm shift from historic "point to point" relationships in the physical world to ubiquitous communication. For some, this blurs the perception of frontiers between "virtual" and "real" universes.

In a context of accelerating change and conflicting priorities not only does UNESCO owe a duty to itself to understand the nature of the impacts of emerging technologies on the individual, but may also feel the need to encourage an increased awareness of these issues among NGOs so as to ensure the sustained pertinence of quality advice from traditional partners. This appears strategic in areas of archive authenticity, in freedom of information, and sustainable information formats.

"Who owns information content and knowledge and the channels through which information is transmitted and how should an equitable balance between the



**Jonathan Robin**

Vice President IPv6 Task Force France,  
UNESCO UNITAR Scientific Committee Advisory Board  
International Centre for Disability Resources on the Internet  
<http://www.icdri.org>  
Former Internet Society Liaison to UNESCO

interests of rights-holders and the public be reaffirmed?" asks UNESCO.

The Emerging Technology theme was perhaps ahead of its time in 2002 but the need to understand how recent information technology tracks will impact most areas of daily life is now recognized as a strategic priority, howbeit underfunded and too restricted to "expert" advice rather than fully integrated within decision-making processes. An initiative which UNESCO might follow closely concerns the methodologies used by and the conclusions drawn from the current U.K. Gowers Review of Intellectual Property.<sup>27</sup>

At present only the USA has specific legislation for Nanotechnology (Public Law 108-153), including a section on the need to address societal implications. Nanotechnologies will increasingly cover fields of materials, biotechnology, medicine, electronics, engineering, sensors, aerospace, food quality, environmental monitoring and metrology. While these sectors are economic and societal motors, it is the interrelationship between the acceleration of innovation in these areas and ubiquitous communications through the Internet today – and possibly through proprietary radio networks tomorrow – which draws the threads of traditional priorities together. This underscores the importance of UNESCO's "effort to revitalize Infoethics."

Where the current Internet offers around 250 million Internet Protocol addresses for 6 billion people, the migration to IPv6 will offer several billion unique addresses for each individual. This scalability will be accompanied by end to end security (neither today's Internet nor mobile radio technologies are commonly secure) –

though care should be taken to ensure that individual privacy is respected. Though at present the availability of a (relatively) infinite number of IP addresses may seem questionable, information technology usages are catalyzing many areas of societal and economic expansion. One area where this expansion has been globally positive is that related technologies can enhance opportunities for those suffering from disabilities, notably in respect of teleworking, and can reduce individual isolation.

Regional sensor grids could monitor fire hazards or agricultural hydrology, pest or pollution levels and manifold other spheres of individual and collective enhancement. This is impossible under today's Internet because of the limited number of unique mobile IP addresses available. Hitachi's recent 7,5 micron RFID chip<sup>6</sup> can be imbedded in ordinary paper, banknotes or material, inhaled, or embedded in livestock, individuals or biometric passports. This is an example of the potential of emerging technological innovation especially for the developing world in respect of the medical applications. The arbitrage between individual freedoms and economic logistics should be carefully weighed for some more prosaic applications in industrialized nations. Furthermore, an informed position could be ascertained in respect of mandatory employee subcutaneous "empowerment" through RFID surveillance as some may be tempted to apply this as the "norm" rather than the exception in the foreseeable future.<sup>29</sup>

IBM believes by mid century we will be able to store and reproduce individual memories, experiences, emotions and even take them out of "cold storage" for use by ourselves or our heirs. If these experiences

are not “open sourced” from the outset, the ethical implications are significant. This highlights emerging technology convergence that, though “out of this world today”, may seem less strange tomorrow.

Alfred Nordmann, rapporteur of the High Level Expert Group on “Foresighting the New Technology Wave” settled by the Directorate-General Research and Development of the European Commission, wrote: “The potential and limits of ‘engineering for the mind’ and ‘engineering of the mind’ need to be determined. Also, the effects on cognitive processes by technical environments should be investigated: if the video game culture has altered how students learn, pervasive artificial environments of the future will have a more profound effect.”<sup>30</sup>

The 2006/2007 window offers IFAP an important opportunity to raise awareness within UNESCO, and among NGOs, to help all stakeholders integrate an informed overview of domino emerging technology convergence into their own specific agendas. This motivated the suggestion funding be earmarked for an annual trans-divisional Conference open to NGOs to reinforce and sustain win/win understanding of ethical, societal, economic impacts of emerging technologies. This could avoid the cost of trying to preserve ethical priorities from the uncomfortable arbitrages of unprepared damage control “after the event.” It could also help NGOs help themselves. ■

26 The final report of the online discussion forum is available at [http://portal.unesco.org/ci/en/file\\_download.php/63270a56ae67b274729906f144a0af91Final+NGO+consultation+report.doc](http://portal.unesco.org/ci/en/file_download.php/63270a56ae67b274729906f144a0af91Final+NGO+consultation+report.doc).

27 Some technical papers on Nanotechnology Ethics by Professor Jean-Pierre Dupuy and Mobile IPv6 may be found together with my paper to the IFAP thematic debate on Infoethics at [http://portal.unesco.org/ci/admin/ev.php?URL\\_ID=19980&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=-465](http://portal.unesco.org/ci/admin/ev.php?URL_ID=19980&URL_DO=DO_TOPIC&URL_SECTION=-465). The Acts of the February 2006 Aristote IPv6 Mobility conference (French) <http://aristote1.aristote.asso.fr/Presentations/IPv6200602/index.html>.

28 <http://www.engadget.com/2006/02/06/hitachi-shows-off-7-5-micron-thick-mu-chip-rfid-tag/> This link has been used to underscore individual reactions to the announcement.

29 See [http://www.theregister.co.uk/2006/02/10/employees\\_chipped/](http://www.theregister.co.uk/2006/02/10/employees_chipped/)

30 Converging Technologies. Shaping the Future of European Societies. European Commission. A report from the High Level Expert Group on “Foresight the new Technology Wave”. Available at [http://www.forskningsradet.no/CSStorage/Flex\\_attachment/ntw\\_report\\_nordmann\\_final\\_en\\_0.pdf](http://www.forskningsradet.no/CSStorage/Flex_attachment/ntw_report_nordmann_final_en_0.pdf)



**Guillaume Chenevière**

Chairman, World Radio and Television Council, Director, Media and Society Foundation

## Infoethics and the Media

**The Media** occupies a unique position in supporting the democratic process by making information, knowledge, and a range of opinions openly available and by ensuring that public and private institutions are accountable for their behaviour. This is social responsibility in its highest form. (Robert Phillis)

This statement by Robert Phillis, chairman of the Guardian Media Group, confirms the conclusions of a UNESCO-sponsored grass-roots research project undertaken on five continents and carried out by the World Radio and Television Council in 2002<sup>31</sup>: media ethics are linked to the media's social responsibility.

Further, in relation to the ethics of information and the media, a conference of the Media Institute of Southern Africa entitled "Towards an African Ethical Media" (MISA, August 2005) reached two main conclusions:

- By not granting editorial independence to the media, governments are hampering the diversification of opinions and views on issues affecting the livelihood of their citizens; and
- Ethical guidelines are absolutely necessary for high quality reporting in the media.

Of these two key issues identified by MISA, namely editorial independence and quality standards, the first one depends heavily on both political and economic powers, recognizing the role of independent media in sustainable development. It is fortunate that many powerful advocates of media freedom, including UNESCO, support this just cause around the globe.



No one can define media ethics but the journalists themselves

The second issue, however, is a matter for media professionals to address directly. No one can define media ethics but the practitioners themselves. Several international researchers show that there is little difference in editorial values between media worldwide, even though there is a great difference between the societies they are serving.<sup>32</sup> Standing up to those shared values requires a strong commitment within the industry and some encouragement from international institutions such as UNESCO. According to the International Federation of Journalists, "there has never been a more important moment for journalists to identify with quality, with standards and with sound ethical practices." (World Congress, Athens, May 2004).

Why is that so? Because mainstream media, which by and large shape public opinion worldwide, are facing four major new challenges:

1. Dwindling credibility of the media;
2. Renewed efforts at manipulating and/or controlling media content by Governments and industry members alike;

3. Economic pressures on media organizations;
4. Changed media landscape through ICTs.

Of these four items, the first three are linked together in a vicious circle: the tendency of media owners to consider media as an entertainment business whose sole object is to maximize profits contributes to a loss of trust of the general public and justifies governments and industry leaders in either policing or spinning the media to convey their message. The realization of such media manipulations further undermines the public's confidence and encourages publishers to concentrate more and more on non-controversial themes such as the weather, lifestyles, celebrities, etc. that are of little contribution to social development and the democratic process.

This being common knowledge, let's present three facts which stress this point. According to *Pew Research*, in 2005, 45 percent of American readers believe little or nothing they read in their daily newspapers (up from 16 percent twenty years ago). In Switzerland, 77 percent of voters feel manipulated by the media, and in France, an analysis of voters' motivations during the referendum on the European Constitution revealed the highest correlation to "no" voting as distrust of the media. Thus, as Walter Lippmann observed in the 1920s, a crisis of journalism is a crisis of democracy – an adage which may still be true today.

The recent mushrooming of new media devices is both a further threat to mainstream media and an opportunity for them to redress the situation. The world media landscape in 2005 is made of 7,000 national daily newspapers, 21,000 televi-

sion stations, 40,000 radio stations, 20 million blogs and 30 million iPods, facts which clearly indicate that individualized media is commonplace and 'everyone is his or her own media'. As Rupert Murdoch estimates, young people want to control their media rather than being controlled by it. Exit the influence of media pundits.



Young people want to control their media rather than being controlled by it

The good news is that mainstream media can be turned into interactive fora. Richard Sambrooke describes BBC World Service as a global conversation. "If bloggers command the Internet unconstrained, trading views as they wish, then with facts and judgment added, professional journalism has to put itself on the same wavelength," writes the Guardian's Peter Preston<sup>33</sup>. The 2005 "State of the News Media Report"<sup>34</sup> warns that "news organizations may have to document their reporting so that audiences can decide for themselves whether to trust it or not. Since citizens have a deeper range of information at their fingertips, the level of proof in the press must rise accordingly."



This should translate into the outcome that journalists using the Internet must be as transparent as possible about their sources and methods and also provide the general public with an easily accessible corpus of articles on important themes, revealing how their media treatment evolves over time.

Increasingly, the professional journalist's role will be that of a mediator, turning innumerable data and views into a trustworthy, meaningful aggregate allowing the formation of a qualified opinion. Concomitantly, the civil society and public institutions worldwide must demand the commitment of media organizations to this vision, one that is both realistic and indispensable to the democratic process.

In the 21<sup>st</sup> century, media are required to provide a reliable image of the globalized world by:

- Giving a voice to the disadvantaged, the marginalized, and the voiceless in general;
- Providing a longer term perspective;
- Practising cultural diversity;
- Developing 'glocal' communication.

At a time of advertisers' growing influence on media contents, of instant news' total domination of information services, of communities more and more closing in on themselves, and of local news relegating world information to the margins, the media could meet these requirements.

Yet looking forward to the future is a basic value all media professionals recognize. The Media and Society Foundation, a non-profit institution entirely composed of media professionals, believes in media living their own values and implementing quality procedures. It has developed a quality management standard of the ISO 9000 family, specifically designed for the media to adopt voluntarily, spelling out a company's own quality policy and accepting a neutral, independent, non-governmental outside control of its implementation.

At a juncture at which media are in need of repairing their image in society, a universal quality standard may soon be adopted worldwide by all good guys in the industry. This will have a significant impact on media infoethics. ■

<sup>31</sup> World Radio and Television Council (2002): *Rating of electronic media's contribution to social development and democracy*. Available at [www.wrtvc.org](http://www.wrtvc.org).

<sup>32</sup> For more information see for example World Radio and Television Council (2002): *Rating of electronic media's contribution to social development and democracy*; or a CBA comparison of editorial charters in 17 countries, CBA: *Editorial Guidelines*. Available at [www.cba.org.uk](http://www.cba.org.uk).

<sup>33</sup> See *IPI Global Journalist*, 1<sup>st</sup> quarter 2005.

<sup>34</sup> The 2005 State of the News Media report is available at [www.stateofthemedias.org](http://www.stateofthemedias.org).

# IFAP Projects



## The IFLA/UNESCO Internet Manifesto Guidelines and Libraries in the Caribbean

### Guidelines on Freedom of Access to the Internet through Libraries

(IFAP Project 19, Code 461GLO5019)

<b>Contractor</b>	International Federation of Library Associations and Institutions (IFLA), The Hague, Netherlands
<b>Country of Implementation</b>	International
<b>Funding</b>	US \$ 22,500
<b>Goal</b>	To promote the principles of freedom of access to information and freedom of expression; urge decision-makers at national and local levels at large to develop strategies, policies and plans that implement the principles of the IFLA Internet Manifesto
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Forming an international expert work team to develop the guidelines;</li> <li>■ Gathering necessary information at:                             <ul style="list-style-type: none"> <li>■ Workshop in Kampala, July 2004,</li> <li>■ Workshop in St Petersburg, Russia, March 2005</li> <li>■ Workshop in Havana, Cuba, November 2005</li> <li>■ Workshop in Santiago de Chile, Chile, January 2006</li> </ul> </li> <li>■ Drafting guidelines and discussing these at meeting of library and information science experts in London, Great Britain, February/March 2006;</li> <li>■ Publishing final guidelines document.</li> </ul>

**At 10am** on a Thursday morning in Havana, groups of librarians are streaming into the conference suite of a hotel situated right on the beachfront that was recently terrorized by Hurricane Wilma. They have come together in order to discuss a document that seeks to codify a key issue for librarianship at the beginning of the 21<sup>st</sup> century: how to protect freedom of access to information on the Internet.

Inside the room final preparations are being made for a workshop organized by the Free Access to Information and Freedom of Expression (FAIFE) Committee of the International Federation of Library Associations and Institutions (IFLA), with the support of the Information for All Programme. The subject of the workshop is to obtain input for the development of the forthcoming IFLA/UNESCO Internet Guidelines.

The guidelines will be based on the IFLA Internet Manifesto, a document launched in 2002 that, in broad terms, outlines the principles of librarianship in the Internet age and states IFLA's position on how libraries can best increase access to information for their users.

In 2003, UNESCO and IFLA decided to support the production of a set of guidelines that would help librarians all over the world to implement the ideals of the Manifesto in their daily work. The workshop in Havana is the third stop on a mission to receive feedback from librarians in developing countries about the problems of providing Internet access in the face of low budgets and poor infrastructure. Internet access in Latin America and the Caribbean, for example, is available to only 13 percent of the region's population,

compared to nearly 40 percent in Europe. Thus, any set of guidelines developed has to take into account a proper understanding of developing regions' specific needs and capabilities.

"Internet access in Cuba's libraries is only just beginning," explained Marta Terry, one of the conference organizers. "Of our 401 public libraries, only 73 have computers, although by the end of 2006 Internet access for all municipal libraries is a real possibility." Presently Cubans cannot access the undersea fibre optic cables that enable other Caribbean countries to develop high-speed Internet access. Instead, an expensive satellite link-up system entails prohibitive costs for Internet connections that stretch library budgets to breaking point, a situation made worse by a lack of Internet-equipped computers and other necessary equipment.



Explaining the Internet Manifesto:  
Stuart Hamilton (FAIFE Organizer)  
at the Havana workshop

The workshop is arranged in such a way that attendees hear presentations about what is happening in other countries in the region and in the rest of the world before being given a chance to voice their concerns and questions on the Internet Manifesto during an open microphone session.

This workshop format encourages debate and as the workshop progresses, it is clear that the librarians have a lot to say about this and other aspects of Internet access. One of their main concerns is the problem of a lack of maternal language materials and the comparative dominance of the English language online. Librarians from



Cuban librarians discuss  
the freedom of access to  
the Internet in libraries at  
IFLA/UNESCO workshop

the Spanish-speaking countries of the Caribbean expressed the need to make more local content available and to encourage people to go online and experience the benefits of the Internet.

While Cuban Internet users experience a lack of natural language content, a poorly developed infrastructure and high costs of access that many other developing countries also suffer from, there are further criticisms about the true extent of the freedom of access to information in the country. In light of this, the holding of an IFLA/UNESCO workshop in the country takes on a whole new significance.

"The IFLA Internet Manifesto, and the guidelines document that we are currently preparing, both stress the importance of freedom of access to information on the Internet, regardless of religion, culture, political affiliation or any other status," says Susanne Seidelin, Director of IFLA's FAIFE Office. "The importance of talking

about freedom of access to information in often-criticized countries cannot be underestimated, as discussion and dialogue on these important issues will bring us together and enable librarians to provide better services in the future.”

These concepts of dialogue and discussion were central to the effectiveness of the workshop at Havana. The attendant librarians did not avoid engaging with the complex themes of freedom of access to information for all, nor did they focus only on the problem of Internet access, but they also adopted a constructive stance in addressing potential solutions. For example, during the workshop, presentations were given on library networks in Mexico where there has been an increase in Internet access as a result of university libraries and faculties cooperating to offer new forms of user education.

The IFLA/UNESCO Internet Guidelines project will produce a document that uses case studies like Mexico and Cuba to illustrate the sentiments of the Internet Manifesto described above. Prior to the Havana workshop, a meeting had already been held in Kampala in Uganda to discuss the same themes from an African viewpoint. In January 2006 the workshop roadshow moved to Chile in order to provide a South American perspective, and in February a meeting of Internet experts connected to the library world met in London to draft the guidelines document. The end result of this process will be a document that will help librarians to practically implement the Manifesto, and to support libraries worldwide in formulating clear Internet policy-defining objectives, priorities and services in relation to national and local community needs.

“Dialogue and input from colleagues in the regions are extremely important for the success of the guidelines. They know about the concrete problems from their daily work, whereas we bring professional values into the discussions.” says Susanne Seidelin.” She further explains that, “while the guidelines will take into consideration the challenges facing libraries and provide a practical instrument for librarians on the ground, they also have the potential to help decision makers to implement programmes that can improve access to the Internet – in a way that pays attention to fundamental human rights and the importance of freedom of access to information.” Judging by the eagerness with which the issue was discussed in Cuba it is clear that librarians will receive such a document with great enthusiasm. ■

## Access to Information: Raising Awareness of Libraries on Copyright and Related Issues

**Libraries** have a fundamental role to play in the development of democratic societies, by enabling all members of the community to access global knowledge resources, ideas and opinions. Known as “people’s universities”, libraries of all types empower citizens and facilitate good governance through the provision of scientific, educational and cultural information. As evidenced by the most developed countries, a strong library infrastructure is essential to a nation’s development.

However, unhindered access to world-class scholarly information and research data, particularly that which is made available 24 hours a day and remotely accessible via ICT, is still a dream for most researchers, students, journalists and citizens in developing and transition countries. The barriers to accessing information in such countries are formidable: most would-be users have little disposable income to pay for expensive e-resources and for those that do, few opportunities exist to join international experts to share and discuss pertinent knowledge. Environmental and operational constraints are further implied by poor technological infrastructures, a general lack of capacity and political and legal “firewalls”.

Cognizant of this context, during the 1990’s significant investment was made in the modernization and the development of library networks in the post-socialist countries of Central and Eastern Europe, as well as the former Soviet Union. Emphasis was placed on the installation of automated library systems and the development of union catalogues to untap the vast resources of national, research and special libraries, as well as university and public libraries throughout the region.

### Advocacy for Access to Information: Copyright and Related Issues

(IFAP Project 442, Code 461GLO5002)

<b>Contractor</b>	eIFL.net Foundation, Rome, Italy
<b>Country of Implementation</b>	Mainly former Soviet Union countries
<b>Funding</b>	US \$34,000
<b>Goal</b>	To raise awareness and build capacity, expertise and resources in current copyright issues and how they relate to the application of ICTs. To advocate for equitable access to information on copyright and related issues
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Identify the issues in copyright and related rights relevant to libraries in developing countries, especially key challenges and threats;</li> <li>■ Identify candidate librarians within the region who will act as a national focal point;</li> <li>■ Organize a regional workshop for 20 or more librarians, including relevant skills training;</li> <li>■ Create strategic partnerships with national, regional and international civil society organisations to maximize project sustainability;</li> <li>■ Develop re-usable and generic resources on those legal issues relating to accessing information, the challenges for libraries, strategies and solutions for civil society organizations, and related advocacy activities.</li> </ul>

Educating the next generation: students at Vilnius Pedagogical University Library, member of eIFL.net, Lithuania



With traditionally sophisticated education systems, the region was an emerging market for international providers of scholarly information. However, high subscription costs, as well as relatively little awareness of electronic alternatives to print subscriptions, meant that most institutions and their users remained deprived of the wealth of international academic journals and databases available to their international counterparts.

Therefore, Electronic Information for Libraries (eIFL.net)<sup>35</sup> assists libraries and their users in achieving affordable access to electronic scholarly resources. As access to Internet-based digital material can be expanded at marginal costs to the provider, the idea is to leverage the purchasing power of individually “poor” customers by negotiating with information providers on a multi-country consortial basis with highly discounted prices and using alternative business models. The programme not only aims to lessen the digital divide between East and West, but also to ensure equitable access within individual countries for both well-resour-

ced institutions and those smaller libraries that lack the funding for new acquisitions.

However, just as libraries in the Commonwealth of Independent States (CIS) and the surrounding regions are benefiting from access to these new resources, they have also become exposed to the international policy-making environment, especially with regard to copyright and related trade issues. Over the last ten years in particular, a global trend has evolved towards increased protection for rightsholders, ever-upward harmonization and more stringent enforcement laws. Intellectual property (IP) is increasingly viewed as an asset to be traded and the public domain is being eroded. This can result in very restrictive IP provisions which affect access to essential information, educational and learning materials and cultural resources that are crucial to the development of the economies of countries in transition.

Hence, while there are indeed new opportunities heralded by the arrival, integration and usage of ICT, users have fewer rights in the digital environment than in the analogue world. This is evident, for example, in terms of new layers of rights on information such as the database right, technological protection measures that prevent users from availing of lawful exceptions and non-negotiable licences that override “fair use” provisions.

Such issues affect libraries all over the world. But while libraries in the developed countries are often consulted by governments and are actively engaged in protecting the public interest of libraries and education through their national library

organizations, libraries in transition countries are often not included in the same way when national IP policies or copyright laws are being updated. This is partly due to a lack of awareness of copyright issues, a lack of resources and a lack of capacity within the library community. This is not surprising as, with the need to negotiate complex licences with publishers for access to essential electronic resources, the role of the traditional librarian changes to information broker, database specialist and legal expert.

The IFAP-funded project "Access to Information: Raising Awareness of Libraries on Copyright and Related Issues" addresses this gap so that librarians in the region are enabled to become more informed and better equipped to express their needs to policy-makers and politicians, particularly with regard to copyright issues. It is anticipated that this will also help safeguard future library services and will raise the profile of the library community in governance and law-making processes.

"We have seen the difference that access to electronic resources has made to the library community in a short time. We have also come to recognize, however, that unless librarians in the CIS region quickly build capacity in copyright issues, they will find themselves at an increasing disadvantage with regard to accessing knowledge, paying more and receiving less and fatally undermining the new services they can offer, in particular for digital resources", says Rima Kupryte, Director of eIFL.net.

The project is working closely with the eIFL.net library consortia in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan,

Kyrgyzstan, Moldova, Mongolia, Russian Federation, Tajikistan, Ukraine, Uzbekistan, Cambodia, People's Republic of China, Lao People's Democratic Republic and the Middle East to train librarians. The first component of the project was to identify a network of candidate librarians to act as national focal points, the majority of whom have no experience with copyright issues. Although their skills and expertise vary greatly, at the very least, candidates must be able to communicate with the network in English and have regular access to email.

Planning is underway for a two-day regional workshop to be held in 2006 to provide training in specific copyright issues and advocacy skills, to develop a national copyright strategy for libraries and to create position papers and statements for national policy makers. The programme will act as a blueprint for national workshops which candidates are encouraged to organize in order to transfer knowledge and awareness to the library community and friends in each country.

"Face-to-face communication is essential for building the network and to overcome barriers of language and understanding in the complex field of copyright law. This is the first crucial step in the ambitious task of creating a network of library copyright experts" says Teresa Hackett, Project Manager.

In parallel, a handbook with essential information on a core set of issues is being developed. These include updating of national copyright laws, technological protection measures, the terms of protection, orphaned works, database rights, public lending right; trade agreements,



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the relationship between copyright law and contract law, open access publishing, Creative Commons licensing and international copyright developments. The handbook will also outline policy issues relevant to libraries and will contain guidance on advocacy for non-specialist librarians, thus comprising a key part of the online resources toolkit, a central reference for copyright issues for libraries and a handy glossary. It is therefore important to ensure that the information is sufficiently generic so that it can be re-used throughout the region and in different jurisdictions. In this sense, take-up, re-use and translation into local languages are part of the success of the project.

“I knew that copyright issues were important for libraries, but I didn’t know where to start. This is an exciting new activity in a hugely important area of international debate. I hope to share my new knowledge with library colleagues throughout the library community in Russia,” says Irina Razumova from the Arctic and Antarctic Research Institute, Russia.

The project team has a vision that copyright laws in the region are balanced and tailored to the phase of economic and social development of each country; that librarians become advocates for access to knowledge and that there is a level playing field whereby librarians from the region can play a full part in global activities with their international library colleagues. ■

<sup>35</sup> eIFL.net library purchasing consortia operates in 50 developing and transition countries serving thousands of libraries. As well as choosing from thousands of top-class journals, national library consortia provide technical and consulting services to their members, digitising resources and developing institutional repositories.

## Building and Enhancing Information Networks between Local Communities

### Building and Enhancing Information Networks between Local Communities

(IFAP Project 30, Code 461RAS5030)

**Contractor** UNESCO Asia-Pacific Bureau  
for Communication and Information

**Country of  
Implementation** India

**Funding** 27,000

**Project partners**

- Akshaya centres, Malapurram
- Change Initiatives, West Bengal
- Kerala State IT Mission
- Namma Dhwani Community Media Centre, Karnataka
- National Informatics Centre
- Queensland University of Technology (Australia)
- VOICES, Karnataka

**Goal** To develop documents and disseminate research findings and working models for local information networking that facilitates information usage by marginalized and poor groups, especially women and youth

**Activities**

- Ongoing development of “local information networks” as innovative models of local information needs assessment, content production and sharing, including facility and systems development;
- Capacity building, including raising awareness of potential benefits derived from use of ICT, information and communication literacy, social networking, organizational development, etc.;
- Technical capacity building: ICT skills in computers, software, and media;
- Ongoing applied research in three local sites, focused on innovations in information networking;
- Documentation, publication and distribution of research results and analyses, including detailed case studies of three “local information network” sites.

### Local Information Networks

**Budikote** is a village on the border of Karnataka and Andhra Pradesh states in South India. As the birthplace of Haider Ali, an 18<sup>th</sup> century South Indian ruler who rose from poverty to become an important military leader and successful administrator, Budikote has a small place in the region's history. Today, Budikote is, to say the least, 'off the beaten track'. Though only sixteen kilometres from the sub-district headquarters and only eighty-five kilometres from Bangalore, India's IT capital, the road from town has more potholes than pavement, the village has low literacy and education rates, an unreliable power supply and an overloaded phone exchange. Years of crippling drought were followed by a monsoon in 2005 that unpredictably flooded fields and caused huge crop losses, adding to the town's already dire situation.

However, what Budikote lacks in infrastructure and services, it makes up for in part through innovation and initiative, particularly when it comes to community-based organizing and more recently, local information networking.

In the course of supporting sustainable development in the area, MYRADA – a prominent South Indian development organization that has been active in Budikote for more than a decade – clearly identified two challenges: the need to foster and raise awareness in order to achieve local social and economic growth; and the lack of any local information media as a major barrier to realizing their development.

The response to the challenge of creating local information tools is *Namma Dhwani*, or 'Our Voice' in the Kannada language. Supported by MYRADA, VOICES –

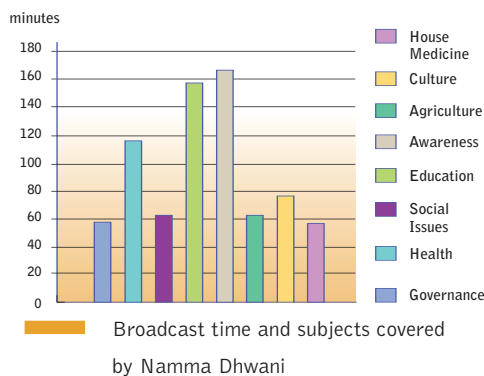
A vital information medium,  
the centre also serves  
an important social function



a Bangalore-based NGO concerned with communications and social change – and UNESCO, the *Namma Dhwani* facility in Budikote has grown to include an audio production studio linked through the local cable TV operation to some 350 households (nearly 60 percent of Budikote’s homes), as well as shops and the local school, a network of eight computers equipped with a content management system and a development resource centre, which in turn is linked to a series of local community-based groups. *Namma Dhwani* produces a daily two-hour community information service, which is shared over the local cable TV network, effectively making it one of India’s first local community radio stations. To date, over 1000 programmes have been created on topics ranging from local financial services and career counselling for youth to malaria and HIV/AIDS prevention.



The main facility in Budikote with loud speakers set up during a market day



With the support of the Information for All Programme in 2005, *Namma Dhwani* expanded the scope of its facilities and services and began researching and working towards the idea of a local information network. In addition to distribution via cable, the daily information service is now ‘narrowcast’ on loud speakers in nearby villages, including two extremely poor and marginalized settlements. Programmes and content are shared with

three other resource centres in villages at distances of six, twelve and eighteen kilometres away, which in turn narrowcast their own daily services using loudspeakers in the village markets and upload information content into the eNRICH knowledge management/sharing software.<sup>36</sup> Using a variety of locally appropriate tools and solutions, *Namma Dhwani* effectively networks a wide range of information content across the local area and offers community members access to useful communication tools. This is demonstrated through some specific examples, detailed in the following sections.

### Managing and Sharing Content: Indigenous Knowledge and External Inputs

Bhavani is a bright young woman always on the lookout for smart solutions to problems faced by her community. At the meeting of a grassroots women’s group, Bhavani discovered that Mellamma, an elder from a neighbouring village, possessed a wealth of knowledge about indige-

nous herbs and plants. Mellamma advised Bhavani on how to use the aloe vera plant to keep away the summer season's troublesome insects.

Bhavani was excited about applying new-found knowledge, and an aloe vera plant now hangs upside down from the ceiling of Bhavani's small office, with four of its six branches covered in thousands of tiny flies, eliciting many comments. "Some people think the plant looks very ugly, but I have persisted in using it and now even many visitors from outside appreciate it," Bhavani says.

Drawn by the aloe vera's special properties, the flies feast on the upside down plant, leaving households, offices and other spaces free for their human inhabitants. It solves the problem without using plastic or any extra materials. Bhavani has discovered that a single aloe vera plant can last two to three months and although it takes time for people to become accustomed to the sight of it, locals agree it is a big improvement.

"I am very interested in scientific programmes. For example, many castes groups pour water around their plates before eating. Earlier they used to do that

to keep away the insects. Now people follow it just as a plain tradition without understanding its meaning. I want to tell people the scientific reasons behind such activities," says Bhavani.

The fact that aloe vera plants can keep insects away is an important piece of information for the community and *Namma Dhwani* plays an important role in sharing this type of knowledge. It has been documented in Kannada and Telegu, the local languages, as well as in English. Villagers can hear about it in their homes and local shops on the daily information service, and the information is also available through eNRICH.

In addition to locally-originating content, *Namma Dhwani* also makes information sourced from the Internet and CD-ROMs available to local communities. In radio browsing programmes, hosts research specific topics and then search the Internet and CD-ROMs together with their listeners, simultaneously translating and contextualizing information. Websites and other digital content formats – such as videos and PowerPoint presentations, as well as many of *Namma Dhwani's* audio programmes – are available in the facility's computer centres through the eNRICH solution.

Computers enable not only training but also expression and information access



### Participatory Networking

Part of enabling *Namma Dhwani* to cover the entire area involves linking resource centres in other villages into a local network, training community volunteers in content production skills, placing loudspeakers on the main street of villages and installing the eNRICH content management system.

Kamasamudram is a village similar to Budikote in size and population some 18 kilometres away. It is home to Nagaraj, a 23-year-old who works as a clerk in the government primary school. He is well known around the village for his friendly demeanour and readiness to participate in community-oriented meetings. His introduction to *Namma Dhwani* came when a local development worker suggested he attend a training session on producing content for the information service. Nagaraj was enthusiastic about the chance to reinvent himself on the microphone. "It was the opportunity to modulate my voice and present matters in my own unique style that first attracted me to becoming a part of the loudspeaker initiative in my village," he says.

Nagaraj works with two other young volunteers, Manju and Sujatha, to plan and execute the daily information service. "At first," says Manju, "we were only doing this for ourselves and for the fun of being on the mike. Then, when for a few days we had to stop the broadcasts due to technical problems, a lot of people, especially the farmers, began asking us why we were not announcing the daily market prices. Nowadays, when we walk back home, many of the people on the road call to us by the names of our shows: "There goes 'Market girl'" or "There goes 'Hello doctor.'"

The volunteers' profile, popularity and sense of pride in giving something back to the village are important aspects of their motivation for contributing their time and effort to developing the programme. Every evening after finishing teaching in the school, Nagaraj walks to the resource centre and plans the day's broadcast. He,



© Namma Dhwani

The network enables villagers speak to experts and each other

Manju, Sugatha and other volunteers scan newspapers for any relevant local news or other items on health or education, check the market rates in the area by calling Budikote and other sources, and then prepare a selection of devotional and cinema music. Combined with one or two features produced at the studio in Budikote, they are ready to go 'live on air'.

Nagaraj also just introduced a daily segment called *nudi muthi* (pearls of wisdom), which narrates moral fables. At a recent meeting of *Namma Dhwani*, volunteers held in Budikote, he said, "even the pace of village life these days resembles that of the cities, with people hardly having any sense of values and tradition. Through the medium of stories I hope that I will be able to make a small change."

His ambitions for the loudspeaker initiative are grand. "Just like in Budikote, I want a system that allows for my whole community to listen to the programmes."

### Information and Governance

Having completed a diploma in electrical maintenance, another Nagaraj, a 24-year

Programmes tailored to the needs of local students have been “narrowcast” in the classroom



old from Budikote, quickly mastered the use of the audio equipment and computers and became a valuable volunteer. One day, a demonstration erupted in front of the *panchayat* (local government) office. Women had queued up and were banging away on empty pots demanding the restoration of the water supply, which had stopped eight days earlier. On impulse, Nagaraj picked up an audio recorder from *Namma Dhwani* and recorded their complaints, before going to the *panchayat* office and speaking with the chairman, who promised to repair the broken pipes.

Najaraj turned the recordings into a programme, which was cablecast by *Namma Dhwani* the same evening. The next day, water was flowing and *Namma Dhwani* followed up the first story with an in-depth interview with the *panchayat* secretary who explained that water supply disruptions occur mainly because villagers do not pay their bills regularly. Nagaraj says, “the real impact of the programme occurred to me when some people came to the *panchayat* and paid their outstanding dues.”

Nagaraj and *Namma Dhwani* also played a key role in contributing to good governance through their coverage of the *panchayat* elections. While a team of four young women worked the studio and the telephone at Budikote, Nagaraj reported from the polling station in sub-district headquarters, phoning in updates every fifteen minutes as part of a special programme that continued until the early hours of the following morning. “For the first time during these elections we have realized that *Namma Dhwani* can play such an important role in our lives,”

Local information and communication media and the dialogue they enable are all essential elements of governance and development



© Namma Dhwani



© Namma Dhwani

Significantly, local officials chose Namma Dhwani to show a new voting machine

reported Murthy, a shop owner in Budikote who listened to the election news. “Kindly don’t interrupt the programme to play any songs. We want to hear more about the election results. *Namma Dhwani* is doing us a great help by letting us know the happenings instantaneously. We never had this before,” exclaimed Krishna M.N., a local baker on the night of the cablecast. Soon, even people who were standing close to the crowded counting booths were calling *Namma Dhwani* to find out the latest results. By the end of the day, over three hundred calls were taken.

However, the advocacy role of the station is not limited to such election coverage, but also seeks to play an ongoing role in monitoring politics and advocating good governance. Some two years ago *Namma Dhwani* began recording the village *panchayat* meetings, but after several months the *panchayat* disallowed the practice. In the lead-up to the election, *Namma Dhwani* interviewed all the local candidates. In addition to questions about their background, intentions and assurances,

each candidate was also asked “If you win, will you allow *Namma Dhwani* to cover and record all the local *panchayat* meetings...?” Although most of the candidates agreed, newly elected members all recanted saying they “needed to consult with other members.” *Namma Dhwani* is continuing to advocate for the right to share information from *panchayat* meetings. As Triveni Narayanswamy, a 28-year-old *Namma Dhwani* supporter asserts, “I want the proceedings of *panchayat* meetings to be recorded. We all have a right to know what happens to the money that comes in.” ■

<sup>36</sup> eNRICH is a generic and yet easily customizable browser that acts as a gateway to a community’s own world of knowledge, communication and empowerment. It enables communities to quickly and efficiently build their own gateway website, enriched with their own local content and connected to knowledge sources and services that are tailored according to their own information and communication needs. For more information and download see [www.enrich.nic.in](http://www.enrich.nic.in).



## Training School Teachers on the Ethical, Legal and Societal Implications of ICT

### Training of School Teachers on Ethical, Legal and Societal Implications of ICTs

(IFAP Project 601, Code 461EGY5000)

<b>Contractor</b>	National Commission of Egypt for UNESCO
<b>Country of Implementation</b>	Egypt
<b>Project Partners</b>	Ministry of Education, Ministry of Higher Education
<b>Funding</b>	US \$25,000
<b>Goal</b>	To promote a better understanding of the ethical, legal and societal implications of ICTs
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Consultation meeting on developing and/or modifying curricula to take into account ethical, legal and societal in the regular courses;</li> <li>■ Training Course for trainees;</li> <li>■ Training Course for teachers;</li> <li>■ Assessing impact on trainees, and suggestions for future activities on the objectives.</li> </ul>

**While Egyptian students** increasingly use ICT, many of them are not aware of the ethical, legal, and societal implications of these technologies. In a fast developing Information Society, it is important to raise awareness of such implications among students. Teachers, however, are often not aware of the issues at stake and therefore first need to be trained themselves.



School teachers need to be aware of the importance of the ethical, legal, and societal implications of ICT

With the financial support of IFAP and in cooperation with the Egyptian Ministry of Education and the Ministry of Higher Education, the Egyptian National Commission for IFAP (EGIFAP) is currently implementing a project which seeks to train Egyptian school teachers on precisely these issues. The project team has developed model curricula, which will help teachers, especially from remote and underdeveloped areas and villages, to learn how to familiarize students with ethical issues of the Information Society.

Participants of the training will learn how to modify curricula to ensure that the ethical, legal and societal aspects of ICTs are integrated into classes. Through the

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utilization of the video-conference network of the Ministry of Education, the project team will be able to reach remote locations and ensure the participation of teachers from various parts of Egypt.

With this project, just as with the long list of other EGIFAP activities, the Egyptian National Commission for IFAP will continue to work for the establishment of an inclusive Information Society in Egypt. ■

# Preservation of Information



**The collection,** preservation and dissemination of information is at the very centre of human existence, forming a core around which all civilizations have developed, including those that pre-date literacy. With the advent of writing and the creation of documents, humankind was given tools that dramatically accelerated the progress of civilizations. Documents enabled reference to the accumulated information of previous generations and formed a basis for the systematic and efficient development of ideas.

Throughout history, libraries and archives have been the guardians of this documentary heritage of humankind. Although in past centuries the materials used for writing underwent very few changes, the last two centuries have seen the recurrent emergence of new media, ranging from the photographic process to digital formats.

In the 19th century, print documents were complemented by audiovisual records – representations of physical phenomena such as sounds and images. For the first time it was possible to document orally transmitted cultural phenomena, making them available for research and enabling them to be communicated to a wider, even global, audience.

Access to and dissemination of information rely, however, on the stability of documents and the retrievability of their contents. Paradoxically, the stability of documents does not necessarily increase with new technical developments, but rather, the inverse is often the case. For example, whereas with care, the clay tablets of Mesopotamia will last further millennia and paper can be stable for centuries, audiovisual documents will, generally, only

survive for decades, while the life of digital documents, on average, will not exceed ten years.

Modern information carriers have a further problem: being machine readable documents, most audiovisual and all electronic documents are, in addition to the physical and chemical instability of the carriers of the information, threatened by the obsolescence of the dedicated replay equipment. Due to the pace of technological development, the commercial life cycle of recording and storage systems is becoming ever shorter. In the world of advanced audiovisual and electronic documents – commonly termed “born-digital” documents – this leads to specific cases in which carriers may still be in good physical condition, while the required replay equipment is no longer available. Consequently, audio, video and electronic documents can only be successfully preserved by regular migrations from one hardware/software/format configuration to the next.

The safeguarding of all these documents has, until recently, been primarily associated with the maintenance and archival of books and other written materials. Whereas textual libraries have existed for more than 4000 years, photographic documents have only been in existence since 1839, audiovisual archives for about a century, and the latest digital documents have been in common existence for less than a decade. These forms of documentation all preserve information as words, images or sounds; separately or in combination. The different forms as well as the materials of which they are composed are important factors to consider when preserving these items.

Damage by insects  
on an oriental manuscripts



In this chapter, issues relating to the preservation of information will be expanded through the presentation of two expert papers. Features on specific projects implemented with the support of the Information for All Programme will then show some of the achievements in the area of preservation of information around the world. ■

# Experts speaking





**Dietrich Schüller**

Vice-Chairperson,  
Intergovernmental Council  
for the Information for All  
Programme,  
Representative of Austria

## The Ethics of Preserving Audio and Video Documents

**The classical aim** of archives and museums is to preserve the objects placed in their care. Consequently, considerable efforts are made to extend the life expectancy of stored objects – ideally to “eternity”. This has worked for text documents with considerable success. Many documents from ancient cultures have survived remarkably well. Only the introduction of acidic paper in the 19<sup>th</sup> century introduced major problems to paper preservation. Even so, the life expectancy of text documents can, on average, be measured in centuries and the concept of preserving the original is still valid.

With the advent of audiovisual documents – photographs, films, sound and video recordings – archives faced new and increased problems related to document preservation. Practically all audiovisual carriers are more vulnerable and chemically less stable than good quality paper. Photographs and films may, under special climatic conditions, be preserved for a century or more. Audio and video recordings stored on magnetic tape are, however, threatened by manifold chemical instabilities. Modern optical discs, particularly recordable CDs and DVDs, are also prone to decay. The average life expectancy of audio and video recordings can therefore only be measured in decades.

In addition to the inherent physical and chemical instability of documents, it must be noted that, apart from photographs, audiovisual carriers are machine-readable documents. Even well-preserved documents are useless without the appropriate replay equipment. The development of technology means that formats of ever increasing sophistication are being developed at a constantly increasing pace, and

as a consequence, life cycles of the formats are ever shorter. Today, practically all dedicated audio formats and most video formats are commercially dead. This creates considerable problems: as the production of replay machines is discontinued and spare part supply is reduced, the maintenance of the replay machines is rendered increasingly problematic.

Around 1990, sound archivists began to realize that the traditional archive concept of preserving the original carrier was hopeless and long-term preservation could only be achieved by copying of the contents from one generation of storage systems to the next. This necessitated the use of digital technologies, as it is only by using digital technologies that such transfers can be made without a loss of quality. Consequently, the content of analogue recordings have to be copied to a digital format first. Initially, this change of paradigm was received with opposition from conservative archivists. Today, however, this principle – which has always applied to data preservation in the computer world – is generally accepted for audio and video recordings. Yet, because of the enormous amount of data needed to digitally represent photographs with accuracy, it is not viable for general use in the preservation of large numbers of photographic images and is far from being applicable to films. Fortunately, the stability of chemo-optical carriers is far less critical than that of electronic images and the obsolescence of film replay equipment is not yet a major concern. This shift of paradigm was one of the major “philosophical” changes in document preservation which consequently triggered a series of ethical issues.<sup>37</sup>

### Primary and secondary information of documents

The primary information of audiovisual carriers is the intended content (the signal), while the secondary or ancillary information may take manifold forms. Both primary and secondary information form part of the audio heritage and must be preserved.

### Unmodified signal retrieval from originals

It is important to understand that the audiovisual content, the primary information, consists of the intended, possibly technically inadequately recorded signal, plus all artefacts that have been added by the deterioration of the signal and/or carrier over time. The entire primary information must be fully extracted and transferred unmodified to digital format. There are only a few exceptions to this rule, such as when corrections can be assessed with absolute objective accuracy. Any subjective signal restoration ("improvement") must be left to a second step.

### Choice of digital resolution

The digital resolution chosen must be sufficient to cope with the audiovisual content plus the artefacts, which, on mechanical audio recordings – cylinders, 78s and LP records – have a far wider bandwidth than the audio signal itself. Many institutions, therefore, use digital resolutions in excess of the pure audio range, today up to 192 kHz, 24 bit, believing that the better the representation of unwanted artefacts, the easier their (future) removal will be. For similar considerations, 12 bit colour depth and beyond may become customary

in video preservation, once the provision of the additional storage space needed becomes viable.

### Data reduction

Data reduction, often misleadingly called data compression ("lossy compression"), which is based on perceptual coding, causes irreversible loss of information and is therefore incompatible with archival principles. Further, data reduction is imperfect and is noticeable with critical signals and becomes annoying with subsequent multiple encoding-decoding processes ("cascading"). In addition, it limits post production capabilities and the potential for analytical investigation. However, data reduction can be a powerful tool in the dissemination of signals whenever lower technical quality is acceptable, such as with access copies of recordings.

This principle is fully accepted and implemented in audio archiving, whereas for video, because of the very large storage requirements of linear, uncompressed video signals, it is yet not widely accepted. For film, digital preservation is not yet viable. Electronic representations of films are, therefore, considered to be access copies only.

There is no objection, however, to the use of lossless compression. Formats with lossless compression, such as MJPEG 2000, are recent and attractive developments for good quality digitization of video signals.

### Considerations related to the safety of digitally stored information

Because of their vital importance, safety strategies form part of the ethical consi-



derations related to the storage of digital information, as digital information can be lost – without warning – at any time. Consequently, elaborate logistical measures have to be taken to prevent accidental loss of data. “One copy is no copy” is the leading principle: a minimum of two copies must be available at all stages of the transfer and archiving process.

### Further preservation of the originals

It is anticipated that signal extraction methods will improve over time. With further falls in the cost of digital storage, ever higher digital resolutions have become practical and, consequently, will likely become *de-facto* standards in the future. It is therefore wise to keep the originals after digitization, if possible. This is the general policy of all responsible audiovisual archives. The cost of prolonged storage of the originals is, however, often difficult to defend to financing

bodies. Radio archives, in particular, frequently offer originals of digitized holdings to national and provincial archives.

### Literature and Standards

- Ray Edmondson: *Audiovisual Archiving: Philosophy and Principles*. Paris: UNESCO, 2004  
<http://unesdoc.unesco.org/images/0013/001364/136477e.pdf>
- IASA Technical Committee - Standards, Recommended Practices and Strategies IASA-TC 03, *The Safeguarding of the Audio Heritage: Ethics, Principles and Preservation Strategy*. Version 3, 2005  
<http://www.iasa-web.org/iasa0013.htm>  
IASA-TC 04, *Guidelines on the Production and Preservation of Digital Audio Objects* (Kevin Bradley, Ed.) Version 1, 2004
- FIAF – Fédération Internationale des Archives du Film: *Code of Ethics*  
<http://www.fiafnet.org/uk/members/ethics.cfm> ■

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<sup>37</sup> The following considerations are abstracted from IASA-TC 03, a document originally written for audio preservation, which structurally, however, is also applicable to video. Available at [www.iasa-web.org/iasa0013.htm](http://www.iasa-web.org/iasa0013.htm).

## Digitisation for Preservation and Access

**Increasing concerns** about the survival of many types of documents, coupled with the wish to improve access to the information they contain, has led to an explosion in the use of digital technologies by archives and libraries all over the world.

Reasons for the use of digital technology vary. Some institutions wish to open up their collections to a wider audience and see digitization and the Internet as a method of achieving this desired aim. Other institutions see digitization as a way of providing access to delicate documents without damaging them. A third group has documents that are approaching the end of their life and digitization thus offers a method of preserving the information for future generations.

The biggest danger when approaching digitization is haste. It is not simply a case of buying some equipment, connecting it and starting work. It has to be clearly understood why digital copies of documents are to be made.

- Are digital copies to be made for access or preservation or both? This will determine the quality of copy required.
- What prioritization of the making of the digital copies is to be applied? Are endangered documents to be digitized first or is priority to be given to those in highest demand?
- What speed of access is required? Do the anticipated demands on the service require the very fast access offered by hard disc arrays (a few seconds), the medium speed access of tape drives (a few minutes) or the

slow access of carriers housed on a traditional library shelf (a few hours)?

- Is access only required at workstations within the institution or is the service to be offered “beyond the walls”?

Until these and other basic questions have been thoroughly debated and answers agreed, decisions about requisite equipment cannot be made. It may well be that the decision is to stay with an analogue technology such as microfilm, a medium that still has much to offer. Microfilm can provide an excellent quality copy of original documents. The technology is well tested and the problems are known. The major limitation is that access can only be obtained by visiting centres that have copies of the films. If it is decided that digital copies of material that has previously been microfilmed are required, it may not be necessary to repeat all the capture processes, as equipment exists that, provided the microfilm images are of good quality, can semi-automatically digitize them.

Once these basic questions have been answered, decisions can be made. The first and most obvious is “Which storage format?” The format chosen by many institutions beginning to digitize their collection is recordable CD or DVD. Blank discs are cheap, recorders can be fitted into a standard PC and there is also a range of software available to work with. In addition, the basic technologies are common and easily understood. The burnt discs can either be stored on a shelf and accessed in the traditional manner or housed in a jukebox to allow the user to have more control of the access to the information. There is, however, a hidden danger with



**George Boston**

Member of the Technical Committee of the International Association of Sound and Audiovisual Archives (IASA), Rapporteur of the Sub-Committee on Technology (SCoT) for the Memory of the World Programme, Member of the Audio Engineering Society (AES)

the use of CDs and DVDs for long-term storage of data. When the recordable discs first appeared, the blank discs were expensive but of high quality. As the use of the discs has spread, the price has dropped to about one tenth of the initial cost, but with the drop in price, there has been a parallel drop in reliability. A strict regime of testing newly burnt discs and regular monitoring of the discs in store must be established if the data is to survive.

A better solution is to use a computer storage system. The smaller systems, requiring up to about two TeraBytes (2000 GigaBytes) of storage, are usually based on servers using an array of hard discs. These offer fast access times but cannot offer large storage capacities at a relatively low cost.

For larger storage requirements, magnetic tape cassettes may be preferable, but at the cost of a slower access time. These are used by large generators of data who also require very low levels of error in the stored data. Users are drawn from the banking industry and research institutions including the space agencies and governments, amongst others.

The slower access time of tape drives has led to systems which combine tape with hard discs used within a Hierarchical Storage Management (HSM) system. While all files are stored on the tapes, the files that are in regular use are duplicated on the hard discs to provide rapid access. When the usage of a file on the hard disc declines, it is replaced by another, more popular file.

Once the storage format is chosen, cost becomes the next concern. The cost of the

capture process for the documents fall into two groups: equipment costs and human resource costs. The former includes the equipment required to capture, process and store the data to be digitized – the texts, the sounds or the images. Here it must be noted that the costs of scanners, work stations, software and digital storage have been steadily falling and look likely to continue to fall. The latter relates to costs of staff requirements for the preparation and capture process and the documentation of the work. These costs are, at best, static. The staff costs involved in the preparation of a document and the operation of the capture equipment are, however, basically the same as those for microfilming. Indeed, a number of institutions are making digital and microfilm copies in parallel – one set of preparation costs (the more expensive part) and two sets of equipment costs (the cheaper part).

The capture process also brings the need to resolve two non-technical questions. The first is copyright. It is still the case in most countries that material in copyright cannot be copied by archives without the agreement of the copyright owners – even to preserve the information. Depending on the material to be digitized, this may be a small or a large obstacle.

The second non-technical question concerns metadata, often described as “data about data”. In the analogue world, this is a detailed and specific extension of the normal cataloguing process. However, when associated with digital collections, it becomes a necessary part of the use and control of the information in store. A Preservation Metadata Set is a statement of the information that is expected to be required to manage preservation of digital

collections. It supplements and incorporates the descriptive, administrative and structural metadata sets assembled for the digital collection. Preservation metadata will be a key component in the preservation and management of any digital collection and must be designed to support future preservation strategies.

Metadata can be stored within the resource it describes (e.g. file formats that support descriptive headers), separate from the resource (e.g. an external catalogue) or separate but linked to the resource (e.g. a file linked with the digital object in a repository structure). Each strategy has particular benefits and disadvantages. It is possible, and in fact probably desirable, to use these strategies in parallel.

Having made the digital copies of the original documents, however, does not entail

the end of the process. As with analogue information carriers, digital carriers require maintenance to ensure that the data remains in good condition and accurate. In addition, technological obsolescence in the machines required to access the information will require regular updates of equipment and periodic migration of the data to new systems. Being digital, however, such migrations need not require high levels of costly supervision by people.

More detailed advice can be obtained from *Guidelines on the Production and Preservation of Digital Objects* edited by Kevin Bradley, ISBN 8799030918. This is recommended by the Sub-Committee on Technology for the Memory of the World Programme and can be ordered from the website of the International Association of Sound and Audiovisual Archives at <http://www.iasa-web.org/tc04/index.htm>. ■

# IFAP Projects



## Planning Post-Tsunami Reconstruction of Libraries and Archives

**In Sri Lanka**, 26 December 2004, the public holiday after Christmas Day, began as a beautiful, sunny day and cooling 'Christmas breezes' (as they are known in Sri Lanka) blew. Suddenly, without warning, three mighty waves arose – the middle one up to thirty feet high. Within forty minutes, these waves had drowned or swept away 35,322 people, left 516,150 homeless, destroyed 88,544 houses and affected most communities on the north-eastern, eastern, southern and south-western shores of Sri Lanka. 70 public libraries were damaged and 19 were entirely swept away – books, newspapers, furniture, windows, doors walls, roofs and even their foundations gone. For schools the figures were even higher, with 181 schools' libraries damaged and 84 entirely destroyed.

Faced with such a dire situation, the nation rallied to the challenge and assistance from local communities was immediate. Nevertheless, the problems were of such a magnitude that the nation alone could not handle them. Within two days the Director-General of the Sri Lanka National Library, Upali Amarasiri, had issued a call for assistance via the Internet to the international community of librarians. Russell Bowden, an Honorary Fellow of the International Federation of Library Associations and Institutions (IFLA) residing in Sri Lanka at the time, toured the tsunami-devastated southwest coast of Sri Lanka and on returning to Colombo he reported on the horrors he had witnessed. This report, together with Upali Amarasiri's request for the delivery of assistance, spurred immediate action by UNESCO, requesting its Delhi Regional Office to ask Bowden to convene a meeting in the National Library with UNESCO

### Planning Post-Tsunami Reconstruction of Libraries and Archives

(IFAP Project 620, Code 461SRL5000)

<b>Contractor</b>	Sri Lanka National Library and Documentation Boards, Colombo, Sri Lanka
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<b>Country of Implementation</b>	Sri Lanka
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<b>Funding</b>	US \$ 100,000
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<b>Goal</b>	To develop, assist and support the public libraries and archives in the tsunami-affected areas for them to carry out the services to the local community with a view towards positioning and enabling public libraries to function as e-libraries
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|-------------------|---|
| <b>Activities</b> | <ul style="list-style-type: none"> <li>■ Conducting survey of tsunami-affected government records;</li> <li>■ Establishing architecture plans for library buildings;</li> <li>■ Repairing affected public library buildings;</li> <li>■ Providing library furniture and books;</li> <li>■ Conducting trainings for librarians and para-professionals;</li> <li>■ Conducting public awareness and user education campaign;</li> <li>■ Conducting a study to assist in developing a master plan for libraries to be distributed to potential donors.</li> </ul> |
|-------------------|---|

Sri Lankan libraries  
were heavily damaged by  
the tsunami in 2004



representatives, IFLA, the National Library, the Sri Lanka Library Association and senior librarians.

Hence, only ten days after the tsunami had struck, the Sri Lanka Disaster Management Committee for Libraries, Information Services and Archives (SL DMC for LISA), based in the National Library, was inaugurated. Just five days later, at its second meeting, ten Task Forces were created, amongst which were one for buildings and furniture, another for public libraries, one for school libraries, another for twinning, another for ICT, one for training and one for publicity.

One month after the tsunami, a number of principles had begun to emerge from the SL DMC for LISA's deliberations. The tsunami disaster was seen as an opportunity to not only rebuild, but also to develop and improve resurrected libraries. Since libraries seek to provide access to information in all forms, the new buildings will be re-stocked not only with monographs and journals, but they will also be equipped with ICT. Thereby, libraries – especially those remote in the rural areas – can be placed at the heart of the Government's ambitious and far-sighted "e-Lanka" project. In so doing, access would be provided not only to external information sources via the Internet, but also to local information distribution facilities, thus globally providing Sri Lankan local information. Via the creation of local community websites, information about product prices – such as for fish and paddies – would be made more widely available. With regard to the reconstruction of the public and school library buildings, which

were entirely destroyed by the tsunami, it was agreed to attempt to create spaces that would meet the future needs of the buildings' users. This involved replacing the 'rooms with books' concept (many books locked in glass-fronted cupboards) that had previously prevailed in small libraries. International standards for space provisions and spatial relationships would be adapted by Sri Lankan architects based on librarianship-prepared specifications and briefs for the future construction of buildings. IFLA and UNESCO standards were also used where relevant for public libraries.

The requirements for the schools' learning resource centres and libraries were calculated according to the needs for student-directed and project-based learning, which the Government is scheduled to introduce into all schools, island-wide, in 2007. Fortunately, these were already almost completed from the deliberations and proceedings of two workshops held in Colombo a couple of months before the tsunami struck, and were then finalized in November 2005 in Patiala, northern India, with the support of IFLA's Action for Development through Libraries Programme (ALP) and UNESCO's IFAP.

UNESCO's response to the two early initiatives of Upali Amarasiri and Russell Bowden was immediate. The Organization wanted to know what the priorities were, it wanted to assist in defining them and to get aid mobilized it posted a UNESCO senior staff member – Martin Hadlow. After surveys and the precise collection of statistics (not easy when many records were completely swept away) had been completed, Hadlow and members of the Task Forces sent a list of most urgently-

needed equipment and materials to UNESCO Headquarters with the request for support totalling \$US 6,527,350.

Meanwhile, the National Library set about assisting those public, school and other libraries whose buildings were intact and safe enough to resume services, providing donations of book stacks, cupboards, tables, chairs and books to a value of around US\$ 14,500. The Sri Lanka Library Association, through an appeal to its members and aid-agencies, such as library associations overseas, raised a further US\$ 6,000, which is currently being spent to complete the refurbishment of four school libraries and two public libraries. Furthermore, the international community and individuals have contributed approximately US\$ 27,600 to the main Disaster Management's appeal fund.

With the departure in December 2005 of two UNESCO-funded consultants – one a former Director General of the National Library of Malaysia preparing a tsunami-assistance development plan and the other a Danish architect providing guidance on the space specifications required for briefs for Lankan architects – the first phase of the Disaster Management Committee's work is just about completed. Now that a detailed picture of the consequences of the tsunami for libraries is more fully known, much basic thinking, firmly founded on facts and international best practices, has been completed, emergency aid has been provided, the focus is on future action. In October 2005, UNESCO released US\$ 94,500 of the US\$ 6,527,350 requested earlier in the year and this is being committed in line with the proposals then submitted to IFAP.



Thus as communities find their most immediate needs being met, attention has turned to the rehabilitation of libraries. The Disaster Management Committee, having undertaken planning and established priorities, is in communication with the international aid communities and donor agencies to identify funds with which to bring these into reality.

Rather than entirely spending funds on rebuilding and refurbishing libraries, a unique opportunity has been conceived for the development of information programmes and services, and information literacy practices. The aim is to reposition libraries and information centres at the centre of the communities' information needs, at the centre of the learning process

in schools, and at the physical centre of villages, towns as well as campuses and school buildings. Opportunities and benefits are created out of a disaster. The battle to rebuild after the tsunami is not finished; the immediate needs are due to be met; it is the future development that is before us. This is the reaping of the benefits for the future out of present disaster. Like a phoenix the new libraries will rise proud and developed to stand for many more decades as models to be followed and copied by others in the future not currently affected by the tsunami – the disaster will have been converted into opportunities. However, to achieve these ambitious targets, further assistance will be required, in terms of finances, expertise and specialist equipment. ■

## Safeguarding Audiovisual Archives in Afghanistan

**Throughout the Taliban** regime audiovisual representation in any form was banned in Afghanistan. The Taliban had embarked upon a mission to gradually destroy all organizations involved in any form of audiovisual activity. Since the fall of the regime however, the audiovisual field, like most other fields in Afghan society, is slowly picking up from two decades of conflict and oppression, and as a corollary the demand of the people for audiovisual material is increasing. Thousands of hours of archived audiovisual material, showing the full wealth and complexity of Afghan history over the past fifty years, have re-emerged and are being re-created.



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Afghan audiovisual music programme form an important part of the national heritage

The audiovisual heritage forms an indispensable part of a nation's collective memory. In a country where the political context is still sensitive, reclaiming this and raising awareness about it is of particular importance. It is essential to provide Afghan people with access to their past, so that they can reappropriate it for themselves. *Afghan Films'* cinema newsreels, covering the events of the last five decades, for example, are an integral part

### Cooperation Programme for the Safeguarding of Audiovisual Archives in Afghanistan

(IFAP project 56, Code 461FG5056)

<b>Contractor</b>	Institut national de l'audiovisuel (INA), Paris, France
<b>Country of Implementation</b>	Afghanistan
<b>Funding</b>	US\$ 33,240
<b>Project Partners</b>	<ul style="list-style-type: none"> <li>■ Afghan Films</li> <li>■ Radio Television Afghanistan</li> <li>■ Ariana Films</li> </ul>
<b>Goal</b>	To safeguard the Afghan audiovisual heritage
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Training Afghan technicians in digitization of audiovisual material;</li> <li>■ Organizing six missions of audiovisual experts to Kabul to provide training in the maintenance and use of technical facilities;</li> <li>■ Providing media storage material and spare parts for technical facilities.</li> </ul>

of Afghan national identity. At a time when national unity is an issue of crucial importance, these images are a reminder of how attached Afghans are to their national, political and cultural integrity.

copies cannot replace the original audiovisual documents, digitization does provide an opportunity to make programmes available for wider use without damaging the original masters, and also to secure a back-up copy in case of corruption or loss.

Afghan audiovisual material  
from the 1980s  
faces decay in archives



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Yet, in general, Afghan audiovisual institutions face huge difficulties in restoring their production capacity and access to the audiovisual heritage has therefore been very limited. Only national institutions are able to produce a certain number of programmes, but until today, no independent structure has been able to produce a regular flow of programmes. Against this background, archive collections are a precious resource. Additionally, audiovisual collections could be a source of considerable financial income if provided to foreign audiovisual production companies for television reports on Afghanistan.

But decay is not the only hindrance to the distribution of audiovisual material. The antiquity of the archived material – as some of the archives have remained unused for over fifteen years – means it can only be accessed with equipment for which spare parts are no longer produced. Hence, the maintenance of existing equipment is a matter of high importance, too.

In this context, in July 2002, the *Institut national de l'audiovisuel* (INA) located in Paris (France) launched a programme aimed at safeguarding the audiovisual archives in Afghanistan in cooperation with Afghan Films, Radio Television Afghanistan (RTA) and Ariana Films, an independent production company. The programme aims to train technicians in digitizing audiovisual material, in the maintenance and operation of the equipment

On their missions to Kabul, INA experts ensure that transfer equipment and players are properly maintained

However, thousands of hours of Afghan audiovisual heritage are under threat due to poor storage conditions and the subsequent deterioration in quality of storage media on which the programmes were recorded. It has hence become a matter of urgency to accelerate the safeguarding of this unique heritage. Although digital



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needed for digitization, and in the management of the recorded documents. Furthermore, necessary equipment for these activities, such as transfer players and storage media, is provided. In 2004,



The physical deterioration of media requires urgent intervention

the Information for All Programme decided to provide funds to help INA to carry on with these crucial activities.

With these IFAP funds, six missions of audiovisual experts to Kabul were organized. Experts not only ensured that earlier supplied players and transfer equipment

were maintained but also continued training Afghan technicians to build competencies in restoring and safeguarding their audiovisual heritage. A further IFAP-supported workshop in Paris provided technicians from Afghan Television and Radio institutions with information on the importance of audiovisual preservation and skills to digitize audiovisual material. As the continual and indeed accelerated physical deterioration of original media requires urgent intervention, it is important that local teams, who are familiar with the collection, are aware of the physical deterioration of the media and know how to create digital copies as a back-up. By acquiring knowledge on the necessity of preservation and the necessary skills to transfer audiovisual material into digital format, workshop participants have made one more step towards autonomy in safeguarding the Afghan audiovisual heritage.

With the financial support from the Information for All Programme, INA was able to intensify and accelerate the pace at which the Afghan audiovisual heritage is being digitized and preserved from destruction. ■

## Preservation as a Means of Protecting Caribbean Cultural Heritage

### Preservation as a Means of Protecting Caribbean Cultural Heritage

(IFAP Project 449, Code 461LAC5000)

<b>Contractor</b>	University of the West Indies Library Mona, Jamaica, West Indies
<b>Country of Implementation</b>	English-speaking part of the Caribbean, including Belize and Guyana
<b>Funding</b>	US \$ 35,000
<b>Goal</b>	To raise awareness of the need for preservation and conservation of information to safeguard cultural heritage
<b>Activities</b>	Organize a training workshop to cover the following areas: <ul style="list-style-type: none"><li>■ Basic conservation techniques;</li><li>■ Establishing a conservation facility for print and audiovisual materials;</li><li>■ Intangible Heritage;</li><li>■ Digital preservation;</li><li>■ Writing a preservation plan;</li><li>■ Grant writing;</li><li>■ Intellectual Property issues.</li></ul>

**Cultural heritage** is not everlasting, but rather is vulnerable to destruction and change. This has been repeatedly proven in the Caribbean region, where, over the past five years, many hurricanes, floods, earthquakes and a volcanic eruption have affected the region, damaging several cultural institutions and threatening the region's cultural heritage. As a first step, the Caribbean Community and Common Market (CARICOM) has adopted a document on Regional Cultural Policy, including a section on the preservation of the cultural heritage for all contributing countries. However, clearly more needs to be done. Therefore, the University of the West Indies (UWI)<sup>38</sup> held an IFAP-supported workshop, focusing on the importance of preservation of cultural heritage, for cultural personnel from the CARICOM.

### Background

The culture of the Caribbean region has been influenced by a turbulent history of conquest and enslavement. The region can be described as a cultural melting pot: although indigenous peoples still live in Guyana on the South American mainland, Belize in Central America and the island of Dominica, several European influences are present in the culture of all the islands of the region. Cultural mixing is exemplified by the Garifuna people of Belize, who form a unique blend of the indigenous Caribs of the island of St Vincent and shipwrecked African slaves who were subsequently deported from St Vincent and set adrift off the Central American coast in the eighteenth century. Today, the Garifuna people form part of the population of Belize and Nicaragua. They are one example of the rich cultural heritage pres-

ent in the Caribbean region, a heritage that is continuously threatened by natural disasters. In addition, the pervasive presence of foreign television and other media have exposed the youth to external influences which have begun to erode the culture of the region.

### Cultural Heritage under Threat

When Hurricane Ivan flooded the UWI's special collections at the Mona campus library (Jamaica) in 2004, the staff realized that frequent natural disasters threatened the security of many of the region's collections and thus, its cultural heritage. In response, a workshop on the preservation of cultural heritage was held and its success led the UWI to propose to the Information for All Programme that an alike workshop be held in the Eastern Caribbean. As the Belize National Library Service had made a similar proposal, the two were combined and the UWI was asked to undertake a workshop on 'Preservation as a means of Protecting Caribbean Cultural Heritage'. The workshop was to include tangible and intangible cultural heritage, digitization, and an in-depth discussion of the preservation aspects of the regional cultural policy.

Thirty-one participants from eight Caribbean islands attended the workshop, which was held on the island of Antigua, 7-10 November 2004. Participants were mostly professionals from libraries, archives and museums and presenters came from Belize, Antigua, Jamaica, Barbados and the United States. The importance of the workshop was underlined by the attendance of the Antiguan Minister of Culture, the Chief Archivist

and Head of the Library Service from Belize and the Antiguan Archivist.

Participants of the workshop learned how to write project proposals and funding applications for their preservation projects, and furthermore discussed a wide range of relevant preservation issues. During the sessions there were many opportunities for interaction and sharing of experiences as those related directly to the real challenges faced by archivists in everyday and emergency situations. Papers covered topics such as preservation planning and collection care, and practical means of preserving official documents despite inadequate resources. Intangible heritage was discussed by a member of the Garifuna community, whose community's language, dance and music was proclaimed a Masterpiece of Oral and Intangible Heritage. In terms of tangible heritage, the experiences of the Antigua Parks' restoration and protection of cultural spaces and buildings were examined. Another speaker explained how intellectual property issues such as patents, geographical indications and copyright are also relevant to preservation of intangible heritage. Moreover, the need to consider new formats was addressed in a presentation about the software and hardware issues of digitization, including an introduction to open source software.



Workshop participants listen attentively to experts deliberations on the preservation of Caribbean cultural heritage

A key part of the workshop was the discussion of the CARICOM policy on culture and in particular, of the section on the

Overall, the workshop was extremely well-received, with participants commenting that it was a “very rewarding workshop”



Minister of Culture, Hon. Eleston M Adams addresses the opening ceremony.

From left to right: Dorothea Nelson (Chief Librarian, Antigua), George Brown (UNESCO Commission, Antigua), Alton Grizzle (UNESCO Programme Officer, Office for the Caribbean), Hon. Bertrand Joseph (Minister of Education, Antigua), Norma Amenu-Kpodo, Campus Librarian, UWI Mona), Ermina Osoba (Resident Tutor, UWI, Antigua)

preservation of the Caribbean’s cultural heritage. Participants were fortunate to have two members of the original policy-drafting team to lead the discussion, and in the end composed a list of proposals to be forwarded to the Directors of Culture in member countries.

Participants hope for the inclusion of the proposals in the revision of the policy which is due in the coming year. Another concrete proposal deriving from the debate was the formation of a regional audiovisual network and the creation of regional facilities for the storage and preservation of audiovisual material.

and a “very good learning experience.” It is anticipated that with initiatives like this, the preservation of cultural heritage will continue to be addressed in the Caribbean, particularly under the enthusiastic stewardship of dedicated professionals like those who attended the workshop. ■

<sup>38</sup> The university is one of the main institutions of CARICOM, serving sixteen contributing countries and comprising three main campuses on the islands of Barbados (Cave Hill Campus), Jamaica (Mona campus) and Trinidad (St Augustine campus).

# Measuring the Information Society





**Acquiring** and disseminating knowledge is a fundamental requisite for human progress and is essential to empower the underprivileged sections of society. By harnessing the potential of information and communication technologies in all areas of human life, better responses to key areas of human development are possible. It is obvious that the Information Society should not only be technology driven, but should also be concerned with ensuring that all persons, without distinction, are empowered to create, receive, share and utilize information and knowledge for their economic, social, cultural, and scientific development.

As the Information Society gains momentum, there is a concomitant increase in the need for reliable data and appropriate indicators in order to measure progress, and to highlight problem areas so that policy makers are enabled to make informed decisions. Similarly, also the Information for All Programme needs indicators to provide guidance as to its work, particularly in its three priority areas. Monitoring and development of statistical indicators should reflect all aspects and impacts of the Information Society and should take into account trends in the development of new technologies, which can accelerate the exchange of information within societies.

The international partnership for measurement of the Information Society, including UNESCO, UNCTAD, ITU, OECD and the UN Regional Commissions is developing a core set of internationally-agreed indicators for measuring progress towards the Information Society. The indicators will provide useful guidance for countries wishing to start collecting information

about ICTs and will constitute the basis for developing internationally comparable statistics on the Information Society. The use of indicators is therefore critically important for monitoring the digital divide, especially in the developing world, and requires in particular measures of usage and impact. Indicators provide feedback with regard to national and external policy-making and investment.

Indicators are required that cover the social benefits and uses of technology and the exchange of information, rather than just the availability and supply of new technology. To take two examples of central concern to IFAP, and UNESCO in general. Firstly, the use of ICT in schools should not be limited to administrative tasks but should also be commonly available to students to facilitate the exchange of information, access to learning materials, and exchange of views. Learning how to use ICT to seek and assess information, forms an important component of information literacy. Secondly, the ability to communicate in one's mother tongue is an important element in the transmission of cultural values. UNESCO's Institute for Statistics has been working to establish reliable statistics for both the use of ICTs in schools and the use of languages on the Internet.

Hence, if countries are to effectively monitor developments in the Information Society, statistical capacity building is required. National statistical plans will need to fully integrate appropriate statistical indicators, and coordination will be necessary between regulators, government and telecommunication companies in data collection and interpretation.

Indeed, the use of indicators to monitor the digital divide is critically important, particularly in the developing world, requiring, in particular, measures of usage and impact. Good indicators will provide feedback with regard to national policy-making and investment, and in terms of external participation in projects and investments. Measuring the rapidly changing environment of the Information Society is a complex but essential process in order to capture the changing economic and social significance of the Information Society.

In this last chapter, key issues of measuring the Information Society will be discussed, through a summary of the key aspects of IFAP's thematic debate and the presentation of two expert papers, providing insight into latest policy level discussions. Then, featuring a project implemented with the support of the Information for All Programme demonstrates how, through the establishment of measurement indicators, good practices in ICT for development can be identified and applied to future ICT development projects. ■

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## — Experts Speaking

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## Setting the Frame: IFAP Thematic Debate

**As the Information for All** Programme seeks to narrow the gap between the information rich and the information poor, it is essential to define who are the information rich and the information poor and how they, especially the latter, are progressing. But what are appropriate indicators for this?

To discuss these issues, particularly in relation to how to measure progress towards the achievement of IFAP's goals as well as its progress in bridging the digital divide, more than 30 participants, including IFAP's Bureau Members, representatives from NGOs and UNESCO staff, came together at UNESCO Headquarters in Paris on 19 October 2004.<sup>39</sup>

Key questions of the debate were: What should be measured and how? What reliable international comparative data already exists? How does a country know how well it is doing in achieving IFAP goals and in bridging the digital divide?

Participants agreed that before consideration can be given to specific indicators, a focus for measurement activities must be established, e.g. international benchmarking (between countries) or regional comparison (within countries). Speakers underlined the discrepancy between nationally-specific and cross-nationally comparable data. Whilst it was acknowledged that choosing a standardized method is important to provide a global picture and to make comparisons between countries, Denise Lievesley, the Director of the UNESCO Institute for Statistics, emphasized that there is also "a risk that a standardized framework for collection, definition, and classification of data may distort the national picture." Thus data

### Speakers

- **Alexander Schischlik**  
UNESCO Culture Sector  
"Alliance for Cultural Diversity"
- **Amir Piric**  
UNESCO Internal Oversight Service (IOS)  
"IOS's Approach to Evaluation & Measurement"
- **Andy Wyckoff**  
Organization for Economic Co-operation and Development (OECD)
- **Hans d'Orville**  
UNESCO Bureau for Strategic Planning (BSP)  
"Measuring ICT for Development"
- **Ian Thomson**  
2020 Communications Trust New Zealand  
(by audioconference)  
"Computers in Homes for Rural Communities"
- **Lydia Deloumeaux**  
UNESCO Institute for Statistics (UIS),  
Denise Lievesley, UIS (by audioconference)  
"The Statistical Challenge"
- **Mike Heaney**  
International Federation of Library Associations and Institutions (IFLA)  
"IFLA's Approach to Measurement"
- **Paul Hector**  
UNESCO Communication and Information Sector  
"Initiative B@bel"
- **Perrine Canavaggio**  
International Council in Archives (ICA)  
"ICA and e-Information for All"
- **Stella Hughes**  
UNESCO Communication and Information Sector  
"Community Multimedia Centres"
- **Torben Krogh**  
International Programme for Development of Communication (IPDC)  
"Measuring Programme Effectiveness – an IPDC Perspective"
- **Wijayananda Jayaweera**  
UNESCO Communication and Information Sector  
"ICT in the Hands of the Poor"

should be collected in a way that is culturally sensitive. Speakers also stressed that when developing measurement methods, it is particularly important to consider their appropriateness for developing countries.

While debating how to establish the most useful types of indicators at the lowest cost of data collection, participants agreed that in its selection of indicators, IFAP should enforce its focus on the four principles of Knowledge Societies – freedom of expression; quality education for all; respect for cultural and linguistic diversity and universal access to information and knowledge. Given that partner organizations already address the first three areas, it was suggested that the special focus of IFAP should be on the fourth principle: universal access to information and knowledge.

As measuring the Information Society is, in fact, of interest to many organizations, it was agreed that scarce, available resources need to be leveraged and that organizations in this field need to establish partnerships. IFAP in particular could coordinate with, for example, IFLA's Committee on Free Access to Information and Freedom of Expression (FAIFE), the International Council on Archives (ICA), and, of course, IFAP National Committees.

Throughout the debate it became clear that all participants agreed on one point: when attempting to measure progress towards achieving IFAP's goals, just focusing on the technological infrastructure is inadequate. All participants conceded that infrastructure measures such as data on telephones, computers, Internet connections, or bandwidth give useful information about the level of access that

a society has to ICT. However, it was argued that unless these measures are placed within the context of a society itself, they fall short of revealing the extent to which communities and societies have access to relevant information, and hence can be misleading in providing an indication of the benefits that ICTs are delivering. Therefore, speakers stressed that it is important to follow a more social and human approach to measurement instead of the common technological and economic approaches. ■

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<sup>39</sup> The debate took place within the framework of the 7<sup>th</sup> meeting of the Bureau of the Intergovernmental Council for the Information for All Programme. A comprehensive report of the thematic debate is included in *UNESCO. Information for All Programme (IFAP). Thematic Debates of the Bureau of the Intergovernmental Council for the Information for All Programme. Issues and Outcomes.* Edited by Laurence Zwimpfer (New Zealand) - Paris: UNESCO, 2005. - i, 26 p. ; 30 cm. (CI-2005/WS/6). The report can be accessed at <http://www.unesco.org/webworld/ifap/debates>.

## Measuring the Information Society – An ICA Perspective

### ICA and the Importance of Records and Archives

**Archives and records** are unique documents that cannot be replaced if they are lost or damaged. They provide evidence of rights and entitlements and can therefore be used to assess the state of our human rights. They tell the stories of our progress as a people and as individuals. Archives and records also provide evidence of accountability for actions taken and are essential for evidence-based governance and effective business operation and accountability.

The effective management of our archives and records is critical to achieving the above aims. Good management is premised on effective legislation for managing both current and archival records, on efficient and transparent systems for managing them over the long-term, and on the provision of appropriate access.

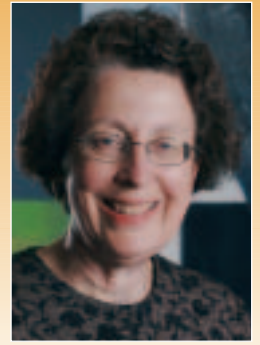
Archivists and records managers are skilled in managing large volumes of unique information but face many challenges. Access systems are often not easy to use and 'born digital' records need to survive through technology changes. The value of individual records and archives may only be recognized long after they are created, when an issue arises that needs to be addressed through documentary evidence. The archives and records professions have many challenges that they need to face to ensure that archives and records are cared for and that anyone with a need to access them does not face barriers.

### The Current State of International Archival Statistics

The International Council on Archives (ICA) has set up four strategic priority areas for the focus of its work, one of which is "Advocacy and Promotion". Within this priority area it is recognized that being able to identify the international state of archives and records and to measure any changes that have taken place over time is critical. An international statistics project has therefore been established to identify the statistics needed to assess the state of the world's archives and records, to measure the needs for capacity building and to measure progress with archives and records programmes.

There are many possible objectives for a statistics system for international archives, including the need to provide international visibility for archives and records, the need to provide robust information so that ICA can plan and respond effectively, and the need to demonstrate the value of archives to society, economies and governments. It is also important for archives institutions to show that they are efficient and effective. This is often done through benchmarking: by comparing one institution to another. The comparative evaluation of the performance of archives and records institutions will not be part of the international statistics project, although it is receiving some attention through the work of archives and records researchers.<sup>40</sup>

The collection of archives and records statistics is not straight forward. Currently, there is no international framework for archival statistics, no central point to obtain guidelines and advice on the collection of statistics and no consistent stan-



**Dianne Macaskill**

Chief Archivist and  
Chief Executive of  
Archives New Zealand  
Leader of the international  
statistics project for  
the International Council  
of Archives.

The International Council  
on Archives (ICA)  
is a non-governmental  
professional organization  
for the community of  
records managers and  
archivists, with members  
in over 180 countries.

standard definitions for some common archival and records terms. An international system needs to have both the support of the majority of countries and also to be clear about any limitations in the statistics that are produced so that appropriate conclusions are drawn from the data. In addition, any statistical collection needs to be consistent over time, so that change and progress can be identified. These are major challenges.

### International Archival Statistics Project

ICA has led a number of international archival statistics projects over the last twenty years. These have provided a range of useful information, but have consistently identified issues related to the lack of commonly accepted definitions. At the International Conference of the Round Table of Archives (CITRA) meeting held in Abu Dhabi in November 2005, a steering group met to discuss the international archives statistics project and it was proposed that the focus for the next few years should be to undertake a study of international archival development. This study would be based on an international survey of National Archives institutions undertaken in 1993.<sup>41</sup>

The survey asked a number of questions that are critical to understanding the state of archives and records management and administration, and the impact that this management and administration has on providing access to archives and records. Questions covered topics such as the:

- Existence of an archives training school and/or of in-service archival training schemes
- Existence of central archival repositories

- Standard of storage in such repositories
- Type of archival holdings (e.g. photographs, film, sound recordings)
- Adequacy of description of archival holdings
- Number of staff
- Availability of technical facilities
- Availability of reading rooms for public access

All the above issues are still important today if we are to ensure that progress has been made and that our records and archives are adequately managed and made accessible. There are also emerging access issues which will need to be addressed in any new work undertaken. These include the growing demand to access digital copies of archives and records remotely and the challenges for managing records which are 'born digital'. 'Born digital' records need to be migrated over changing technologies if they are to be accessible over time. These topics will need to be canvassed in any new statistical survey.

ICA and UNESCO's Information for All Programme will be able to target their work programmes through a better understanding of the international state of archives and records. This will ensure that the value to society that is provided through the effective management of archives and records will be delivered to people for whom archives and records are essential information. ■

<sup>40</sup> See *Towards Program Evaluation in Archives*, Jacques Grimand and Lucie Page, Archival Science 2004

<sup>41</sup> See *The present state of archival development world-wide*, Michael Roper. Janus – 1996 –Special-Tunis 1995.

## OECD Methodology for Measuring ICT Usage

**There is little doubt** that ICT has promoted profound economic and social change over the past decade or so. The need for statistics and analysis to support and inform policy making has grown alongside the rapid emergence of new ways of communicating, processing and storing information. There is no agreed comprehensive statistical framework of the Information Society, but an often used framework is the well-known S-curve (see figure below). Originally developed to describe indicators for electronic commerce, today it is often used to describe ICT infrastructure and demand more generally. It considers three stages as follows: e-readiness, e-intensity and e-impact.

tionnaires to guide the collection of data on access and use of ICT. Countries are encouraged to use these model questionnaires as a core part of their survey development in the area of ICT statistics in order to improve the international comparability. Additionally, as (parts of) these model questionnaires are adopted by non-member countries, a greater range of comparable statistics will become available globally.

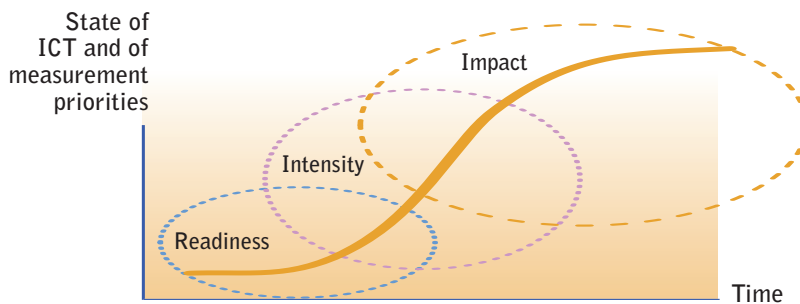
### OECD Model Survey of ICT Use by Businesses

Statistics on the diffusion of new information technologies among businesses are



**Martin Schaaper**

OECD, Directorate for Science, Technology and Industry, Statistical Analysis of Science, Technology and Industry



Development of ICT Uptake and Measurement Priorities: the S-curve<sup>42</sup>

Most OECD countries have moved well beyond the readiness stage. They are intensive users of ICT and are now trying to understand the impacts of this usage. However, measuring impacts is notoriously difficult, in particular direct measurement, which is a subjective exercise. A more promising and objective approach is to assess the impacts of ICT by analyzing underlying usage data. Measuring this demand side of ICT is an area where OECD member countries have made much progress. The OECD Working Party on Indicators for the Information Society (WPIIS) has developed two model ques-

important for evaluating the extent to which the use of information technology has an impact on overall economic performance. Greater use of ICT in the production process may, for example, help raise the overall efficiency of the use of capital and labour, for instance, by reducing inventories and transaction costs.

In 1999, the WPIIS started working with the United Nations Voorburg Group on Services Statistics and individual member countries to develop a model survey on the use of ICT goods and services by businesses. After two years of sharing and testing some of the questions posed by several



OECD member countries, a final proposal for a model questionnaire on ICT use in enterprises was adopted by the WPIIS at its meeting in 2001.

The model survey was revised in 2005 to improve harmonization with member country ICT use surveys and to reorient the surveys towards current areas of high policy relevance. This revised model survey is intended to provide guidance for the collection of statistics on business use of ICT, including IT security, electronic business and electronic commerce.

The revised model questionnaire consists of three modules:

- Section A – General information about business use of ICT including: use of computers, the Internet and technologies such as LAN, WAN, intranets and extranets; means of connecting to the Internet; established IT security measures; and attacks by viruses, worms etc.
- Section B – How the business uses ICT in its operations, including: whether the business had a Website; functions available on the site (including customer relationship functions, privacy and security features, online purchasing and payment facilities); the incidence and/or value of Internet and non-Internet e-commerce (purchasing and selling); the nature of products sold via the Internet and technologies used to sell those products; benefits and barriers associated with Internet selling; use of the Internet for dealing with government organizations; use of the Internet in other areas of the business, such as accounting, human resource functions and information sharing; and links between e-commerce

and back-end systems, customer and supplier systems.

- Section C – Other information about the business: activity, number of employees and annual turnover.

### OECD model survey of ICT access and use by households and individuals

The other major effort on the demand side has been the development of a model survey for measuring ICT access and use by households and individuals. The impetus for such work has been a strong policy interest in issues such as equality of access to ICT and the potential for ICT (and, in particular, the Internet) to significantly change society – in both positive and negative ways.

In late 2002, the WPIIS finalized a model survey on ICT use in households and by individuals. The model survey was revised in 2005, to improve harmonisation with member country ICT use surveys and to reorient the surveys towards current areas of high policy relevance, such as IT security, e-government, the download and purchase of digitized products, mobile Internet access and mobile phone use.

The revised model questionnaire consists of two modules:

- Section A – Household access to information and communication technology, consisting of questions on access to ICTs, how the household accesses the Internet (access devices and Internet access services used) and barriers to Internet access.
- Section B – Individual (adult) use of information and communication tech-

nology. This section includes a number of basic questions on the use of computers and the Internet as per the old (2002) model questionnaire. It also poses new questions including: whether/which mobile access services were used for Internet access; IT security problems experienced; whether the home Internet access device was protected by anti-virus or anti-spyware software, or a firewall; whether the individual creates and keeps back-up files on the computer; and the personal use of a mobile phone. Existing questions on Internet activities and Internet purchasing have been expanded to focus more on new areas such as the use and purchase of new types of products (for instance, digitally delivered music and films) and dealing with government.

### Use of the questionnaires

Measuring ICT usage is a relatively young field of study and the number of countries collecting data is still increasing, progressively following international standards, such as those promulgated by the model questionnaires. For example, while in 2001, data on ICT usage by households and individuals were available for only 15 countries, this number had increased to 23 countries by 2004. Similarly, whereas in 2001 data for business use of ICT was available in only 7 countries, by 2004 this figure had risen to 20.

The OECD Secretariat compiles data from its member countries, and has been publishing the data since 2001, in the biennial report entitled "OECD Science, Technology and Industry Scoreboard."<sup>43</sup> In addition, a dedicated publication was released, entitled "Measuring the

Information Economy," in 2002.

Finally, more information on statistical standards, including the model questionnaires, can be found in the OECD *Guide to Measuring the Information Society*.<sup>44</sup> ■

42 Adapted from "Defining electronic commerce: A discussion paper" [OECD Internal Working Document, DSTI/ICCP/IE/IIS(2000)1], a Secretariat paper presented in 2000. The Figure's original source is Industry Canada.

43 2005 edition available at [www.oecd.org/sti/scoreboard](http://www.oecd.org/sti/scoreboard).

44 Available at [www.oecd.org/sti/measuring-infoeconomy](http://www.oecd.org/sti/measuring-infoeconomy).

— IFAP Project

## Recognizing ‘Good Practices’ in ICT Development Projects

**In order to** understand how to address the needs of developing countries, there are many aspects to consider. ICT projects which aim at meeting these needs are not all equal, but also they are not all effective in the short- and long-term and do not all meet the expectations of countries that are seeking to improve their ICT take-up and bridge the digital divide.

For example, consider the case of a project manager from a public sector institute in Spain who is seeking to create and manage an ICT project in Tanzania. Specifically, the project is to provide wireless application software to public schools, so that teachers can provide their students with Internet access and e-learning applications.

The manager could attempt to find a solution independently, based on past experience with other ICT projects and using their organizational skills and analytical abilities, but as this is his first attempt to enter the African market, there are some uncertainties. For instance, they are unaware of cultural traditions, economic and technological trends and, most importantly, user needs.

In a world of numerous development projects and abundant ICT applications, knowing where to find an example of a similar project in a similar context that has faced similar challenges, and achieved positive results, is complicated. In response, an IFAP-supported project on “Global Database on Good Practices in Designing, Implementing and Evaluating ICT Development Projects,” (GDB) intends to assist public administrative bodies, institutions, organizations and end users in overcoming such problems. It serves as the online window that enables access to high quality ICT projects: those successful and exemplary projects that

### Recognizing ‘Good Practices’ in ICT Development Projects

(IFAP Project 16, Code 461GLoC5016)

<b>Contractor</b>	Cybio Srl Rome, Italy
<b>Country of Implementation</b>	International
<b>Funding</b>	US\$35,000
<b>Project Partners</b>	UNDP
<b>Goal</b>	Define a framework in order to build a knowledge management solution to store, update and disseminate good practices in ICTs projects, which have proved to be successful throughout a global database that contains experiences for turning the digital divide into digital opportunities
<b>Activities</b>	<ul style="list-style-type: none"> <li>■ Structure a scope that includes definitions about what an ICT best practice is, and procedures to consolidate, evaluate and verify information for the database;</li> <li>■ Design and implementation of a database format, which supports all the information about best practices on ICTs;</li> <li>■ Develop two regional requests to promote the participation of country members in the database feed process.</li> </ul>

would help users properly understand, prepare, initiate and manage their own ICT projects.

Success is relative, however, and one's idea of a successful project might differ from someone else's. To avoid subjectivity, objective criteria are required to help categorize 'successful' ICT projects. In collaboration with Cybion, an ICT services institution based in Italy, UNESCO has developed a methodology for validating projects using various relevant criteria to determine whether or not a project contains good practices.

The GDB aims to offer a single, worldwide gateway to access examples of successful, practice-based ICT development projects, with the following objectives:

- Preserving good practice ICT projects;
- Promoting the exchange of experiences and expertise in designing, implementing and evaluating ICT projects for development; and
- Better assisting Member States in the preparation of qualified ICT project proposals for submission to international, regional and national donor agencies for funding and in partnership with leading ICT institutions.
- Contributing to implementing IFAP strategy and policies;
- Understanding the local situation, including resource limitations, target geographical area and category of participants and beneficiaries, and addressing real local needs;
- Harnessing technologies appropriate to local readiness and with future development perspectives;
- Minimizing social exclusion and promote wide benefits/participation and social capabilities;
- Building a sustainable development model;
- Utilizing effective project planning and management;
- Supporting the building of Knowledge Societies;
- Improving cooperation with funding organizations.

These are just a few examples of criteria that would be of assistance to the above-mentioned Spanish project manager in determining which, if any, good practices could be useful. An evaluation is to be carried out using these GPC. For example, for the GPC of "Effective project planning and management," there are several Success Factors (SF), namely: clear objectives, clear identification of the target group, and realistic implementation plan. A ranking is applied to all relevant GPC in order to decide which projects can be inserted into the database.

With a view to determining 'Good Practices Criteria' (GPC) of ICT development projects, an ad hoc working group was established, comprising UNESCO Web System team members and Cybion-Italy experts.

Several sessions of technical consultative meetings of the working group were held at UNESCO via face-to-face discussions and online to define 'Good Practice Criteria' such as:

The Spanish project manager would want to search the database using key words and phrases like: *Africa, Access to Information and Knowledge, Telecommunication technologies*. What would be the final results? The final results would yield not only basic information related to



Global Database on Good Practices (GDP)

the specific ICT project, but also information on key resources like budget data, contact information, relevant web links, etc.

UNESCO intends to help those organizations that might be unaware of how to proceed in ICT project design, formulation or management, by providing guidelines through the GDB. The idea is that they can profit and use the information to improve their own actions, enriching ICT projects of all types across many borders, enabling developing countries to reap the benefits. For the Spanish manager's project in the Tanzanian public school for example, the global database on good practices in designing, implementing and evaluating ICT development projects will really make a difference. ■



**Elizabeth Longworth**

Secretary,  
Intergovernmental  
Council for the  
Information for All  
Programme,  
Director, UNESCO  
Information Society  
Division

# Outlook

**Today**, the Information for All Programme exists in an environment characterized by major divides, including the digital divide, the information divide and the knowledge divide. These divides accentuate and are accentuated by disparities in socio-economic development both within and between nations, excluding entire groups and countries from the potential benefits of networked Knowledge Societies. Unless all people, particularly those who are at the margins of society, are involved in processes of creating, sharing and preserving knowledge the divides will subsist, and the vision of Knowledge Societies will remain as such, merely a vision.

Through its Information for All Programme, UNESCO will continue to optimize the opportunities provided by the information revolution to improve the lives of all people, thereby contributing to building a 'new world' founded on knowledge and the free flow of ideas, in a spirit of global solidarity. I believe that IFAP's intergovernmental structure offers unique possibilities for fostering the international policy discussions and standard-setting necessary to meet the challenges of the 'information age' that are increasingly global. Through the organization of three thematic debates and the development of various standard setting documents during the past two years, IFAP has made important contributions to international policy discussions on issues concerning the Information Society. Having defined three priority areas in 2005 – information literacy, infoethics, and the preservation of information – IFAP has taken a focused approach to its work.

However, the Information for All Programme does not operate in isolation, but indeed, achieving its mandate depends on Member States. IFAP's objectives need to be translated into national strategies and policies, and the work of the IFAP National Committees is crucial for

this achievement. The Information for All Programme seeks to increase the number of National Committees, which actively support its mandate and are involved with its projects, to both engage them and strengthen their role, and thereby to enhance the efficiency of IFAP as a whole. This report demonstrates that IFAP not only establishes policy discussions to create frameworks and guiding principles, but also implements concrete projects that address local information needs. IFAP's financial support for projects has contributed to the construction of Knowledge Societies and provided various beneficiaries with a "life-changing experience". However, the dire situation of the IFAP Special Account imperils the continuation of this vital action in the future. If voluntary contributions from governments and international funding agencies continue to be rare, the Programme will not be able to uphold its important operational activities. This could undermine the progress achieved so far and would debilitate IFAP from developing living information around the world.

On the whole, the work of the Information for All Programme during the last two years has helped to clarify what IFAP's priorities should be and how the Programme can, through a more focused approach to its activities, increase its efficiency in the future. I believe that the last two years have also shown that IFAP can significantly contribute to building Knowledge Societies and to achieving the Millennium Development Goals. Some success stories have been presented in this report, and through the ongoing work of IFAP, I am certain that others are yet to come. ■

# Annex



## Annex 1: Information for All Programme<sup>45</sup>

**Preamble** *Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers*

Article 19, Universal Declaration of Human Rights

1. Information and knowledge are global commons. They are essential to the advancement of education, science, culture and communication, to empowerment, to the promotion of cultural diversity and to fostering of open governance. UNESCO's mandate "to promote the free flow of ideas by word and image"<sup>46</sup> clearly indicates the part that the Organization is called upon to play in making information and knowledge freely accessible to all, with the production, collection and dissemination of information by all, with the ultimate objective of bridging the gap between the information rich and the information poor.

2. To achieve this end and according to its constitutional mandate, UNESCO shall "maintain, increase and diffuse knowledge" by ensuring the "conservation and protection" of the world's recorded knowledge. Furthermore, the Organization shall encourage "cooperation among nations ... [in] the exchange of publications" and other information materials and initiate "methods of international cooperation calculated to give the people of all countries access to the printed and published materials produced by any of them".

3. International intellectual cooperation is of the utmost importance in a global environment, which is led by rapid developments of information and communication technology (ICT) and increased convergence in all its applications. The consequences of these developments, particularly in education, science, culture and communication, are affecting, either directly or indirectly, all Member States, groups and individuals, in very different ways.

4. Increasing technological convergence of information and informatics is neither necessarily conducive to globally shared ethical, cultural and societal values nor to the development of equitable access to information for all. People in developing countries in particular must, at all costs, be empowered to participate fully in the global society and to gain maximum benefit from effective and efficient access to information.

5. New methods for accessing, processing and preserving information raise problems of an ethical nature, which in turn create moral responsibilities, to which the international community must respond. Among the issues here are the quality, reliability and diversity of information, the balance between free access to information, fair use thereof and protection of intellectual property rights, the privatization of information, the preservation of the world's information heritage and the privacy and security of personal data.

6. In this context UNESCO with its mandate to promote the "intellectual and moral solidarity of mankind" is uniquely well placed to provide a forum for international debate, and to contribute to policy-making, especially at international and regional levels. Policy-making must focus on preservation of and access to information, with particular emphasis on information in the public domain, on capacity-building, and on networking among key institutions, such as archives, libraries and other information centres.

### Mandate

7. The Information for All Programme shall be a key participant in the fulfillment of UNESCO's mandate to contribute to "education for all", to the "free exchange of ideas and knowledge" and to "increase the means of communication between peoples".

8. The programme shall contribute to narrowing the gap between the information rich and the information poor.

9. The programme shall take direct initiatives, commission studies, facilitate cooperation, analyse and report on all aspects of access to and management of information.

10. Because of its transdisciplinary nature, the programme shall give priority to working with all UNESCO sectors in the adaptation of ICT to their activities.

11. The programme shall cooperate closely with other bodies of the United Nations sys-

tem, other intergovernmental organizations and non-governmental organizations, and with the private sector in order to fulfil this mandate.

### Programme Objectives

12. The Information for All Programme shall provide a platform for international policy discussions and guidelines for action on the preservation of information and universal access to it, on the participation of all in the emerging global information society<sup>47</sup> and on the ethical, legal and societal consequences of ICT developments.

13. As a transverse UNESCO programme, the Information for All Programme shall provide a framework for international cooperation and international and regional partnerships. In order to implement the above-mentioned policies, the programme shall support the development of common strategies, methods and tools for building a just and free information society.

14. In particular, the Information for All Programme shall aim to:

- (a) promote and widen access through the organization, digitization and preservation of information;
- (b) support the production of local content and foster the availability of indigenous knowledge through basic literacy and ICT literacy training;
- (c) promote international reflection and debate on the ethical, legal and societal challenges of the information society;
- (d) support training, continuing education and lifelong learning in the fields of communication, information and informatics;
- (e) promote the use of international standards and best practices in communication, information and informatics in UNESCO's fields of competence;
- (f) promote information and knowledge networking at local, national, regional and international levels.

### Programme implementation principles

#### Partnerships and collaboration

15. In order to achieve its objectives the Information for All Programme requires effec-

tive collaboration and liaison with a diverse and increasing number of interested parties. Therefore, the programme shall emphasize and enhance the role of external collaboration and partnering in its work within UNESCO and in its support of external programmes. It shall actively seek cooperation with other international programmes within and outside the United Nations family in order to harmonize positions and policies. Collaboration with stakeholder NGOs and the private sector shall be established in order to create a multiplier effect from improved communication and collaboration to contribute to achieving the objectives of the programme. Internal cooperation shall be enhanced so that the programme becomes a close partner of UNESCO sectors. The programme shall use ICT in implementing its activities and to establish permanent dialogue with interested communities.

#### Evaluation

16. Specific programme activities shall be monitored regularly and evaluated when they are accomplished in order to permit regular adjustments of the programme. An overall evaluation of the programme and its expected results shall be carried out in the seventh year of its existence (corresponding to the last year of UNESCO's Medium-Term Strategy for 2002-2007).

#### Project principles

17. On the activity level, the projects carried out within the framework of the Information for All Programme shall be catalytic, have a pilot character, include the sunset rule, contain an evaluation component and apply the subsidiarity principle (appropriate sharing of responsibilities at the international and national levels).

### Main Programme Areas

18. The Information for All Programme is at present composed of five areas. The results within each area are offered as indications of what the programme seeks to attain by the end of 2007.

#### Area 1 Development of international, regional and national information policies

- International consensus on the concept of universal and equitable access to information as a basic human right established;
- International consensus on a framework of ethical and legal principles related to cyberspace established;
- International observatory on international, regional and national information policies established;
- Clearing house on best practices on ICT-based governance established; International framework on the safeguarding of the world's information heritage established;
- International agreement on policies governing the exchange of information required for global environment and climate monitoring.

#### Area 2 Development of human resources and capabilities for the information age

- International framework for ensuring basic literacy and ICT literacy established;
- ICT-based training networks for information specialists in all regions established;
- Framework for cooperation and information exchange about the content and quality of training in the information area established;
- Introduction of e-publishing and e-commerce training activities for publishers and producers.

#### Area 3 Strengthening institutions as gateways for information access

- UNESCO portal to information institutions worldwide established;
- National public gateways to information in several countries of all regions established;
- National digitization policies established in four countries per region;
- Standards for the management and preservation of recorded knowledge established.

#### Area 4 Development of information processing and management tools and systems

- Regional needs analysis and policy planning in the creation of information management tools established;
- Multilingual corpus of freely accessible information management tools created;
- Collections of best practices and standards in information management prepared and tested.

#### Area 5 Information technology for education, science, culture and communication

- Multi- and trans-sectoral information intelligence platform to assist all UNESCO's programmes in formulating and taking informed decisions established;
- Monitoring system on needs and trends in the use of ICT to favour lifelong learning for all established;
- Education portal including the involvement of links to various virtual universities established (following a feasibility study);
- International best practices in the area of electronic publication in science established;
- International guidelines for ensuring networked access to scientific information established;
- Environmental data and information exchange networks and data centers in developing countries expanded, particularly in Africa;
- Substantial progress made in networking cultural and media workers and institutions worldwide in the service of peace, understanding and development;
- International framework on multilingualism and multiculturalism in cyberspace established;
- World Observatory on the development of the media in the information society established.

19. The delivery of these results will depend on the allocation of the appropriate resources by the General Conference and of extrabudgetary resources. ■

<sup>45</sup> Text adopted by the Executive Board at its 160<sup>th</sup> session, Paris 9-25 October 2000. Resolution 160 EX/3.6.1.

<sup>46</sup> Constitution of UNESCO, Article I all following quotations are from the Constitution.

<sup>47</sup> At the first phase of the World Summit on the Information Society UNESCO introduced its concept of building Knowledge Societies which is now rather used than the notion of one global Information Society.

## Annex 2: Statutes for the Intergovernmental Council for the Information for All Programme

### Article 1 - Establishment

An Intergovernmental Council for the Information for All Programme, hereafter called the Council, is hereby established within the United Nations Educational, Scientific and Cultural Organization (UNESCO).

### Article 2 - Membership<sup>48</sup>

- The Council shall be composed of twenty-six Member States of UNESCO elected by the General Conference taking into account the need to ensure equitable geographical distribution and appropriate rotation.
- The persons appointed by Member States as their representatives on the Council shall preferably be specialists in the fields covered by the Information for All Programme.
- The term of office of members of the Council shall extend from the end of the ordinary session of the General Conference during which they are elected until the end of its second subsequent ordinary session.
- Notwithstanding the provision of paragraph 3, the term of office of thirteen members designated at the first election shall cease at the end of the first ordinary session of the General Conference following that at which they were elected. These members shall be chosen by lot by the President of the General Conference after the first election. Each retiring member shall be replaced by a member belonging to the same regional group.
- Members of the Council shall be immediately eligible for re-election.
- The Council may make recommendations to the General Conference concerning its own membership.

### Article 3 - Sessions

- The Council shall normally meet in regular plenary session once every two years. However, the Council may meet in extraordinary session at the request of the Director-General or of the majority of its members.
- During the first three years of existence of the Information for All Programme, the Council should meet every year.
- The Council will be entitled to hold virtual meetings.

### Article 4 - Rules of Procedure and subsidiary bodies

- The Council shall adopt its own Rules of Procedure including those for virtual meetings.
- Under its Rules of Procedure, the Council may establish whatever working groups it considers appropriate, provided that the necessary financial resources are available, the Bureau being considered as a subsidiary body of the Council.

### Article 5 - Functions

Within the framework of the decisions of the General Conference concerning the Information for All Programme, the Council shall guide its planning and implementation. This shall, in particular, include:

- considering proposals on the development and adaptation of the Information for All Programme;
- recommending the broad lines of action that the Information for All Programme could take;
- reviewing and assessing achievements and defining the basic areas requiring increased international co-operation;
- promoting participation of Member States in the Information for All Programme;
- supporting all fund raising efforts for the implementation of the Information for All Programme.

### Article 6 - Bureau

- At the beginning of its first session, and subsequently whenever the membership of the Council is modified by the General Conference in accordance with Article 2 above, the Council shall elect a Chairman, three Vice-Chairmen, three other members and a Rapporteur; these shall form the Council's Bureau.
- The members of the Bureau who are representatives of Member States of UNESCO shall remain in office until a new Bureau has been elected.
- The Bureau shall discharge such duties as the Council may confer upon it.
- Meetings of the Bureau may be convened

between meetings of the Council at the request of the Council, or of the Director-General of UNESCO or of the majority of the members of the Bureau.

- The Bureau will be entitled to hold virtual meetings.

### Article 7 - Observers

- Member States and Associate Members of UNESCO, which are not members of the Council, may send observers to all meetings of the Council or its working groups, except meetings of the Bureau.
- Representatives of the United Nations and other organizations of the United Nations system may take part, without the right to vote, in all meetings of the Council and its working groups, except meetings of the Bureau.
- The Council shall lay down the conditions under which other international governmental or non-governmental organizations may be invited to participate in its proceedings without the right to vote. The Council shall also lay down the conditions under which certain particularly well-qualified persons might be consulted on matters within their competence.

### Article 8 - Secretariat

- The Secretariat of the Council shall be provided by the Director-General of UNESCO, who shall place at the Council's disposal the staff and other means required for its operation.
- The Secretariat shall provide the necessary services for the sessions of the Council and meetings of its working groups.
- The Secretariat shall fix the date of the Council's sessions in accordance with the Bureau's instructions, and shall take the steps required to convene such sessions.
- The Secretariat shall assemble all suggestions and comments made by Member States of UNESCO and the international organizations concerned, with regard to UNESCO's Information for All Programme as a whole and the formulation of specific projects, and shall prepare them for examination by the Council.

### Article 9 - Financing

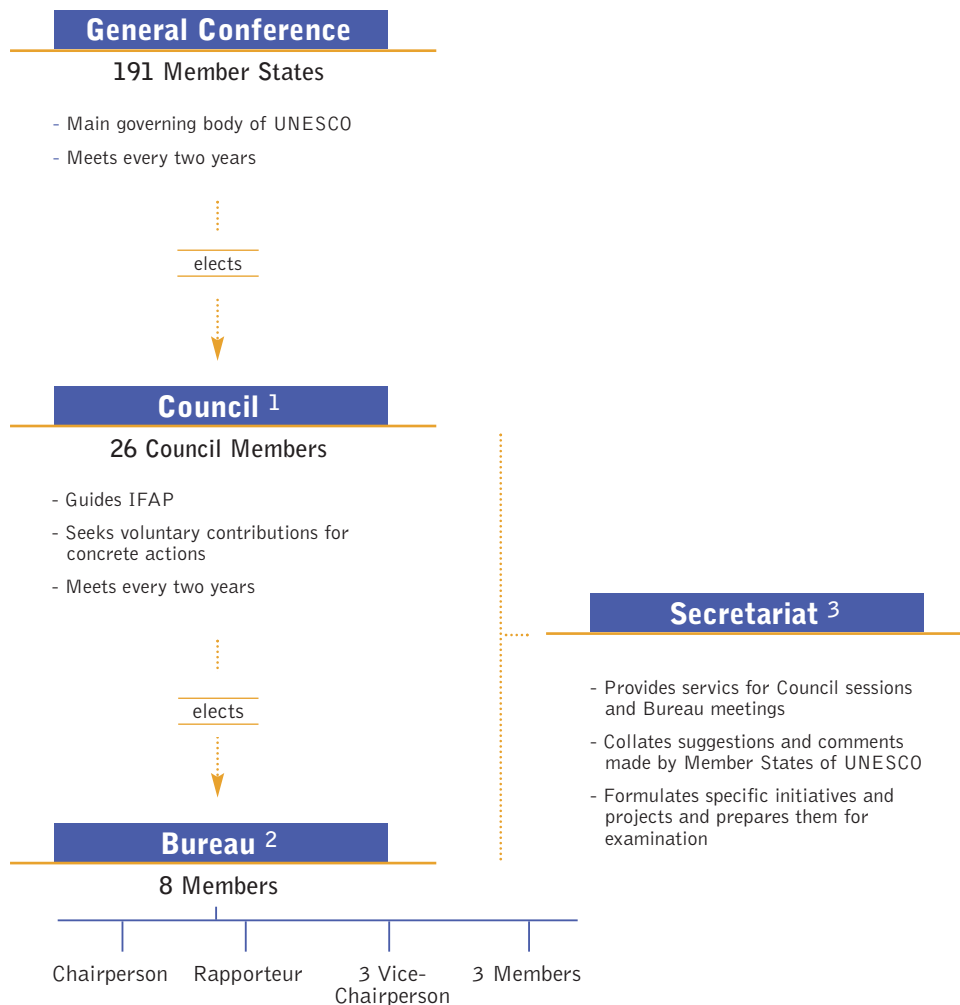
- The operating costs of the Council and its working groups shall be covered by an appropriation voted for this purpose by the General Conference of UNESCO.
- Member States shall bear the expenses of the participation of their representatives in sessions of the Council, its Bureau and working groups with the exception of representatives of Least Developed Countries (LDCs) whose participation expenses shall be borne by the Council.
- Voluntary contributions to the Information for All Programme may be accepted and established as trust funds, in accordance with the Financial Regulations of UNESCO, and administered by the Director-General.

### Article 10 - Reporting

- The Director-General shall submit to the Council, at each of its sessions, a report on the implementation of the Information for All Programme.
- The Director General shall submit to the General Conference through the Executive Board, at each of its sessions, a report on the implementation of the programme, particularly as it relates to the activities of other UNESCO programmes and those of other bodies of the United Nations system, other intergovernmental organizations and also international non-governmental organizations.
- The Council shall resubmit through the Executive Board to the General Conference, at each of its sessions, a report on its activities. ■

<sup>48</sup> The Executive Board, by 162 EX/Decision 3.7.2, has modified Article 2, paragraphs 1 and 4 of the Statutes of the Intergovernmental Council for the Information for All Programme. The Executive Board has decided to increase from 24 to 26 the total number of seats on this Council and recommends to the General Conference that it divide these seats as recommended to it by its Provisional Committee, adding one seat for Group II and one seat for Group IV.

## Annex 3: IFAP Structure



<sup>1</sup> An Intergovernmental Council, composed of 26 UNESCO Member States, guides IFAP in its planning and implementation of activities. Members of the Council are elected by the General Conference, taking into account the need to ensure equitable geographical distribution and appropriate rotation.

<sup>2</sup> The IFAP Bureau consists of eight Member States nominated by the governing Council, and meets twice a year to appraise, select and approve projects as well as to hold thematic debates on issues of importance for the Programme. A Chairperson, three Vice-Chairpersons, three other members and a Rapporteur form the IFAP Bureau, which carries out duties as requested by the Council.

<sup>3</sup> The Secretariat of the Council is provided by the Director-General of UNESCO. It provides the necessary services for the sessions of the Council and meetings of the Bureau. The Secretariat assembles suggestions and comments made by Member States of UNESCO and the international organizations concerned. It is responsible for the formulation of specific projects, and shall prepare them for examination.

## Annex 4: IFAP Members

### IFAP Council Members

■ Member States elected from 31st to end of 32nd session of the General Conference (2001 - 2003):

Bahrain  
Brazil  
Cameroon  
Canada  
Colombia  
France  
India  
Madagascar  
New Zealand  
Peru  
Philippines  
Sweden  
United Republic of Tanzania

■ Member States elected from 32st to end of 34nd session of the General Conference (2003 - 2007):

Angola  
Austria  
Belgium  
Cameroon  
France  
Indonesia  
Iran  
Madagascar  
New Zealand  
Peru  
Tunisia  
Uruguay  
Venezuela

■ Member States elected from 31st to end of 33nd session of the General Conference (2001 - 2005):

Belarus  
Benin  
China  
Cuba  
Germany  
Iraq  
Japan  
Mauritania  
Nigeria  
Russian Federation  
Slovakia  
Spain  
Zimbabwe

■ Member States elected from 33rd to end of 35th session of the General Conference (2005 - 2009):

Canada  
China  
Congo  
Czech Republic  
Egypt  
Ethiopia  
Germany  
Hungary  
Jamaica  
Malaysia  
Poland  
Sudan  
United Republic of Tanzania

## IFAP Bureau Members

### ■ Members of the IFAP Bureau elected by the IFAP Council (2002-2004)

Canada (Vice-Chairperson of the Council)  
 China  
 Colombia  
 Iraq (Vice-Chairperson of the Council)  
 New Zealand (Rapporteur)  
 Nigeria (Vice-Chairperson of the Council)  
 Peru (Chairperson of the Council)  
 Slovakia

### ■ Members of the IFAP Bureau elected by the IFAP Council (2004-2006)

Austria (Vice-Chairperson of the Council)  
 China  
 Cuba (Vice-Chairperson of the Council)  
 France (Chairperson of the Council)  
 New Zealand (Rapporteur)  
 Nigeria (Vice-Chairperson of the Council)  
 Slovakia  
 Tunisia

## IFAP Chairs and Rapporteur (2001-present)



### **Graciela Fernandez Baca**

Former Chairperson (2001-2004),  
 Intergovernmental Council  
 for the Information for All Programme,  
 Representative of Peru



### **Laurence Zwimpfer**

Rapporteur (2001 – present),  
 Intergovernmental Council  
 for the Information for All Programme,  
 Representative of New Zealand



### **Daniel Malbert,**

Chairperson (2004-present),  
 Intergovernmental Council  
 for the Information for All Programme,  
 Representative of France





## Annex 5: IFAP Funding

*No Programme can be successful without adequate financial support. IFAP needs complementary funding if it is to achieve the objectives that have been set. Much needs to be done to raise additional extra-budgetary funds.*

*Koïchiro Matsuura*

**While the functioning** of the IFAP Council is supported by UNESCO's regular budget, all programme work, including pilot projects, relies on funds from voluntary contributions by donor countries. These contributions are held in the **IFAP Special Account**, which is administered in accordance with the financial regulations of UNESCO, with the Director-General regularly reporting on its functioning to the Executive Board.

IFAP also administers a **Funds-in-Trust (FIT)** scheme, whereby donors can nominate

specific projects, countries or regions they wish to support.

A key focus for the work of the Council is to secure ongoing funding for its programmes and projects. Up until the end of 2005, the Council has been able to fund some 37 pilot projects. These play a critically important role in raising awareness within countries of the benefits of Knowledge Societies. The Council encourages Governments to expand their financial support so that IFAP can continue to support this extremely important activity. ■

### Financial contributions to IFAP (2000-2005)

(in US dollars)

Country	Special Account	Funds-in-trust
Brazil	100,202	
China	40,000	
France	218,950	
Greece	8,000	
India	9,967	
Saudi Arabia	20,000	
Spain		808,119
<i>Former International Informatics Programme</i>	748,342	
<i>IFAP funds interest</i>	20,385	
<b>Subtotal</b>	<b>1,165,846</b>	<b>808,119</b>
<b>Overall total</b>		<b>1,973,965</b>

## Annex 5: IFAP Projects 2004 / 2005

Project	Contractor	Country/Region of Implementation	Budget In US\$
<b>Information Literacy</b>			
Building Human Resource Capacity of Ghana's Aspnet ICT Centre	National Commission of Ghana for UNESCO	Ghana	12,250
Development of Information Literacy through School Libraries in Southeast Asian Countries	UNESCO Bangkok	South Asia	33,000
Establishing Information Literacy Competence Levels of Library Workers	National Commission of South Africa for UNESCO	South Africa	21,850
ICT literacy: Promoting ICT within the Educational and Information Sectors	National Commission of Nigeria for UNESCO	Nigeria	24,916
Information Literacy Capacity Building for Vietnamese Academic Librarians	Hanoi University of Foreign Studies, Hanoi, Vietnam	Vietnam	25,000
Information Literacy Training Programme for Public Librarians across the Commonwealth	University of the West Indies Library, Jamaica, West Indies	International	45,000
International Clearinghouse on Information Literacy and Lifelong Learning (CoIL-LL)	International Center for Promotion of Enterprises (ICPE), Ljubljana, Slovenia	International	45,000
Literacy Resource Centre	PACADE, Model Town, Lahore, Pakistan	Pakistan	25,000
Promotion of Information Literacy in the South Caucasus	International Network for the Availability of Scientific Publications (INASP), Oxford, UK	Armenia Azerbaijan Georgia	34,415
Recruiting and Training Library Cadets (RTL) Programme for a sustainable Bahamas	National Commission of the Bahamas for UNESCO	Bahamas	25,000
Research on National Information Literacy Education in China and Indonesia	Institute of Scientific and Technical Information of China (ISTIC), Beijing, China	China	30,000
Secondary Schools' Participation in Information Literacy Programmes	National Commission of Ghana for UNESCO	Ghana	25,000
Terminology Training	TermNet - International Network for Terminology, Vienna, Austria	Africa	35,000
Young Women's Leaders Project (YWLP)	Forum for Women in Democracy (FOWODE), Kampala, Uganda	Uganda	24,805

<b>Project</b>	<b>Contractor</b>	<b>Country/Region of Implementation</b>	<b>Budget In US\$</b>
<b>Infoethics</b>			
Access to Information: Raising Awareness of Libraries on Copyright and Related Issues	eIFL.net, Foundation Rome, Italy	CIS Countries	34,000
Guidelines on the Freedom of Access to the Internet through Libraries	International Federation of Library Associations and Institutions (IFLA), Netherlands	International	22,500
Training of School Teachers on Ethical, Legal and Societal Implications of ICTs	National Commission of Egypt for UNESCO	Egypt	25,000
<b>Preservation of Information</b>			
Cooperation Programme for the Safeguarding of Audiovisual Archives in Afghanistan	Institut National de l'Audiovisuel, France	Afghanistan	33,240
Digital Library of the Sahel	State University Kent, Department of Pan-African Studies, USA	Senegal Mali Burkina Faso	35,000
MEDCULT	Ministero per i beni e le attività culturali (coordinator of Morocco, MINERVA) - Biblioteca di storia modernae contemporanea, Italy	France Italy Egypt Jordan	35,000
Planning post-Tsunami Reconstruction of Libraries and Archives	Sri Lanka National Library and Documentation Boards, Sri Lanka	Sri Lanka	100,000
Preservation as Means of Protecting Caribbean Cultural Heritage	University of the West Indies Library, Jamaica	Caribbean Countries	35,000
Preservation of and Access to Archives and Records Providing Evidence of Human Rights Violations	International Council on Archives (ICA), France	International	45,000
Preservation of Cultural Heritage and its Educational Applications	Fundación Chile, Chile	Chile	25,000
Seminar-Workshop on Audiovisual Archives Collection Development, Information, and Management	SEAPAVAA, Philippines	Regional APA	35,000

Project	Contractor	Country/Region of Implementation	Budget In US\$
<b>Other</b>			
Building and Enhancing Information Networks between Local Communities	UNESCO New Delhi	India	27,000
E-Government Model for World Heritage Cities	UNESCO Quito	Latin-America, Caribbean Countries	601,762
Electronic Libraries in Rural Areas for Reducing Digital Divide in Central Asia	Institute of Problems of Computer Science and Management, Kazakhstan	Kazakhstan	10,000
Establishment of an e-Governance Network for Local Administrators in MERCOSUR Countries	Red de Mercociudades, Uruguay	Latin America	55,000
Global Database on Good Practices in Designing, Implementing and Evaluating ICT Development Projects	Cybion Srl, Italy	International	35,000
ICT for Improving Local Governance: Capacity and Community Building for Local Administrators in Latin-America	Escuela Virtual de Gobernabilidad (EVG), Spain	Latin America	89,500
ICT Supporting Endangered Aboriginal and other Less Commonly Taught Languages	Web Community Resource Networks, Canada	Mexico, Colombia, Peru	35,000
Multipurpose Resource Centre for East Timorese Communities	The Community Radio Association, East Timor	East Timor	35,000
Participation of the National Archives of Chile and Archives of Ministries in the Electronic Governance Project	National Archive of Chile, Chile	Chile	70,000
Policies and Regulatory Frameworks in the Area of Privacy and Access to Public Information	Alfa-Redi, Peru	Regional LAC	35,000
Rural Telecenter Development Guide	Rede Gemas da Terra, Brazil	Brazil	14,500
Rural Youth Information Center	National Commission of the Democratic Republic of Congo for UNESCO	Democratic Republic of the Congo	5,000

## Annex 7: Key Documents and Links

### Documents

#### Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace

The General Conference of UNESCO, recognizing the importance of promoting multilingualism and equitable access to information and knowledge, especially in the public domain, and reiterating its conviction that UNESCO should have a leading role in encouraging access to information for all, multilingualism and cultural diversity on the global information networks, adopted the Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace at its 32nd session (30 September – 17 October 2003).

Through this Recommendation, which proposes measures fostering universal access to digital resources and services, and facilitating the preservation of their cultural and language diversity, UNESCO is encouraging its Member States to support equitable and affordable access to information and to promote the development of a multicultural Information Society.

Full text available at:  
[http://portal.unesco.org/ci/en/file\\_download.php/41e32bf91c3d30c7855cefe4251cba6fRecommendation-Eng.pdf](http://portal.unesco.org/ci/en/file_download.php/41e32bf91c3d30c7855cefe4251cba6fRecommendation-Eng.pdf)

#### UNESCO Charter on the Preservation of the Digital Heritage

The General Conference of UNESCO, recognizing that the disappearance of heritage in whatever form constitutes an impoverishment of the heritage of all nations, recognizing that resources of information and creative expression are increasingly produced, distributed, accessed and maintained in digital form, creating a new legacy – the digital heritage, adopted the Charter on the Preservation of the Digital Heritage at its 32nd session (30 September – 17 October 2003).

The charter is a declaration of principles focusing on advocacy and public policy issues. It is intended to help Member States prepare their national policies inspiring responsible action for preservation of and access to the digital heritage.

Full text available at:  
[http://portal.unesco.org/ci/en/file\\_download.php/09f4ffcbdaddeeb0ecdd3ac1a0662398Charter\\_en.pdf](http://portal.unesco.org/ci/en/file_download.php/09f4ffcbdaddeeb0ecdd3ac1a0662398Charter_en.pdf)

#### Thematic Debates of the Bureau of the Intergovernmental Council for the Information for All Programme. Issues and Outcomes

This document provides a summary of the thematic debates on “Measuring Progress towards Achieving IFAP’s Goals and in Bridging the Digital Divide”, “Information Literacy”, and “Infoethics” organized by the Bureau of the Intergovernmental Council for the Information for All Programme.

Available at  
[http://portal.unesco.org/ci/en/file\\_download.php/873d849285771bd1fab2ca3a14ba96d6IFAP\\_Thematic\\_Debates.pdf](http://portal.unesco.org/ci/en/file_download.php/873d849285771bd1fab2ca3a14ba96d6IFAP_Thematic_Debates.pdf)

### Links

Information for All Programme  
<http://www.unesco.org/webworld/ifap>

UNESCO Library Portal  
[http://www.unesco.org/webworld/portal\\_archives](http://www.unesco.org/webworld/portal_archives)

UNESCO Archives Portal  
[http://www.unesco.org/webworld/portal\\_bib](http://www.unesco.org/webworld/portal_bib)

UNESCO Observatory on the Information Society  
<http://www.unesco.org/webworld/observatory>

## Annex 8: IFAP National Committees

Country	<b>Argentina</b>
Organization	Secretaria de Comunicaciones
Contact person	Nelly Barbieri
City	1359 Buenos Aires
Telephone	+54-11-4347 9434
Email	nbarbieri@secom.gov.ar
	Fax +54-11-4312 1124
Country	<b>Austria</b>
Organization	Austrian Commission for UNESCO
Contact person	Dietrich Schüller, Chair
Street	Universitätsstrasse 5 / 4. Stock / TOP 12
City	A-1010 Wien
Telephone	+43-1-4277 ext. 29601
Email	Dietrich.Schueller@oeaw.ac.at
Country	<b>Belgium</b>
Organization	Services fédéraux des affaires scientifiques, techniques et culturelles
Contact person	Pierre Demoitie, Chargé de mission
Street	8, Rue de la Science
City	Brussels
Email	dl.Belgique@unesco.org
Country	<b>Brazil</b>
Organization	Instituto Brasileiro de Informação em Ciência e Tecnologia
Street	SAS, Quadra 5, Lote 6, Bloco H
City	70070-914 Brasília, DF
Telephone	+55- 61-217- 6360 / 21 6350
Email	webmaster@ibict.br
	Fax +55- 61-226-2677
Country	<b>Canada</b>
Organization	UNESCO National Commission
Contact person	Pauline Dugré
Street	350 Albert Street, P.O. Box 1047
City	K1P 5V8 Ottawa
Email	pauline.dugre@unesco.ca
Country	<b>Chile</b>
Organization	Ministerio de Educacion
Street	Alameda, 1371
City	Of 610 Santiago
Telephone	+56-2-390 4621
Email	mbrinkmann@mineduc.cl
	Fax +56-2-380 0342
	pportales@mineduc.cl
Country	<b>China</b>
Organization	Institute of Scientific and Technical information of China
Contact person	Duan Liping
Street	15 Fuxing Road
City	100038 Beijing
Email	wuyishan@istic.ac.cn
Country	<b>Colombia</b>
Organization	Departamento Administrativo Nacional de Estadística
Contact person	Cesar Augusto Caballero
Street	Transversal 45 N° 26-70 - Interior 1 Edificio
City	A.A.80043 Bogota
Telephone	+57-1- 597 83 00 ext 2616
Email	dane@dane.gov.co
	Fax +57 -1-597 8399

- Country **Congo** (Democratic Republic)  
 Organization Congolese National Commission for UNESCO  
 Contact person Eugène Mbuyi-Mkendi  
 Street P.O. BOX 14  
 City Kinshasa-Gombé  
 Telephone +243-88-0 2072, + 243-12-3 4019 Fax +871-150 3261  
 Email mbuyimukendi@yahoo.fr (Satellite)
- Country **Cuba**  
 Organization Tecnologias de Informacion y Gestion del Conocimiento,  
 Ministerio de Ciencia  
 Contact person Gerardo Garcia Cabrera, President  
 Street Centro Habana  
 City La Habana  
 Telephone +537-860 8469 Fax +537-862 6528  
 Email gerardo@citma.cu
- Country **Czech Republic**  
 Organization Czech National Commission for UNESCO  
 Contact person Jiri Blazek, Deputy Secretary-General  
 Street Hradcansk2 Nam, c, 5  
 City 118 00 Praha 1  
 Telephone +420-2-2418 2258 Fax +420-2-2418-2808  
 Email unesco@mzv.cz
- Country **Democratic People's Republic of Korea**  
 Organization Central Information Agency for Science and Technology,  
 Academy of Sciences  
 Contact person Ju Song Ryong, Director  
 Street Wasan-dong, Podunamu St., Sosong District  
 City P.O. Box 81 Pyongyang  
 Telephone +850-2-18111 or 850-2-381 8158 Fax +850-2-381 2100  
 Email dl.dprkorea@unesco.org  
 kim.yun.hum@undp.org
- Country **Denmark**  
 Organization Ministry of Science, Technology and Innovation,  
 Analyses and Strategies  
 Contact person Jan Windmüller, Head of Section  
 Street Bredgade 43  
 City DK-1260 Copenhagen  
 Email jwi@vtu.dk
- Country **Egypt**  
 Organization National Commission for UNESCO  
 Contact person Mervat Omar, Secretary-General  
 Street 17 El Kuwait Street - Dokki Guizeh  
 City P0 Box 12311 Cairo  
 Telephone +202-335 7731 Fax +202-335 6947  
 Email IDC@egnatcom.org.eg
- Country **Finland**  
 Organization Finnish National Commission for UNESCO  
 Contact person Zabrina Holmström, Secretary-General  
 City P.O. Box Helsinki  
 Telephone +358-9-16004 Fax +358-9-1607 6980  
 Email Zabrina.Holmstrom@minedu.fi

Country	<b>France</b>
Organization	UNESCO National Commission
Contact person	Jean-Pierre Boyer
Street	57, Boulevard des Invalides
City	75700 Paris 07 SP, Paris
Telephone	+33-15369 3780
Email	Fax +33 - 15369 3224 jean-pierre.boyer@diplomatie.gouv.fr
Country	<b>Georgia</b>
Organization	Georgian State Department of Information Technologies
Contact person	David Tarkhan-Mouravi, Chairman
Street	77, Kostava st
City	380075 Tbilisi
Telephone	+995-32-36 6961
Email	Fax +995-32-99 7866 gsdit@access.sanet.ge
Country	<b>Germany</b>
Organization	German Commission for UNESCO
Contact person	Roland Bernecker, Secretary-General
Street	Colmantstr. 15
City	D 53115
Telephone	+49-228-604 9719
Email	Bonn Fax +49-228-604 9730 sekretariat@unesco.de
Country	<b>Hungary</b>
Organization	Information Society Research Institute
Contact person	Laszlo Z. Karvalics, Coordinator
Street	Müegyetem rkp.9
City	H-1111 Budapest
Telephone	+36-1-463 2155
Email	Fax +36-1- 463 4035 zkl@itm.bme.hu
Country	<b>Indonesia</b>
Organization	Permanent Delegation to UNESCO
Contact person	Aman Wirakartakusumah, Ambassador - J. B.
City	Paris
Telephone	+33-1-4568 2972
Email	Fax +33 – 1-4566 0237 aspnetind@cbn.net.id
Country	<b>Iran (Islamic Republic of)</b>
Organization	Iranian National Commission for UNESCO
Contact person	Seyed Mohammad Tavakol
Street	17, 1st Alley Shahid Hessari Str, Mirdamad Bd
City	P.O. Box 11365-4498 Tehran
Telephone	+98-21-222 7825
Email	Fax +98-21-225 2536 unesco@irunesco.org
Country	<b>Israel</b>
Organization	Israel National Commission for UNESCO/Ministry of Education, Culture and Sport
Contact person	Daniel Bar-Elli
City	91911 Jerusalem
Telephone	+ 972-2-5603746/7
Email	Fax + 972-2-5603745 unescoil@int.gov.il barelid@int.gov.il
Country	<b>Italy</b>
Organization	Italian National Commission for UNESCO
Contact person	Giovanni Puglisi, Secretary-General
Street	27 Piazza Firenze 3rd floor
City	00186 Rome
Telephone	+39-06-687 3723
Email	Fax +39-06-687 3684 comm.unesco@esteri.it vincenzo.pellegrini@esteri.it



■	Country Organization	<b>Japan</b> Japanese National Committee for IFAP, Japanese National Commission for	
	Contact person	Tamiko Matsumura, Chairperson	
	Street	3-2-2 kasumigaseki, Chiyoda-ku	
	City	Tokyo	
	Telephone	+81-3-3581 2174	Fax +81-3-5511 0845
	Email	jpnatcom@mext.go.jp	
■	Country Organization	<b>Jordan</b> National Information Centre	
	Contact person	Yousef Nusseir, Président	
	Street	P.O. Box 259 AlJubaiha	
	City	11941 Amman	
	Telephone	+962-533 7184	Fax + 962-533 7168
	Email	info@nic.gov.jo	
■	Country Organization	<b>Lithuania</b> Ministry of the Interior	
	Contact person	Virgilijus Bulovas	
	Street	2 Sventagaragio st,	
	City	LT-2600 Vilnius	
	Telephone	+370-5-271 8451	Fax +370-5-271 8551
	Email	lietuva@unesco.lt adirmaite@unesco.lt	
■	Country Organization	<b>Madagascar</b> National Commision for UNESCO	
	Contact person	Nivo Rafaramalala	
	Street	Rue Rabemanantsoa Behoririka	
	City	PO Box 331 Antananarivo	
	Telephone	+261-20222 1761	Fax +261-20222 8496
	Email	nivo@teleonline.org	
■	Country Organization	<b>Mali</b> Archives du Mali	
	Contact person	Aly Ongoiba, Director	
	Street	PO Box 159	
	City	BP 159 Bamako	
	Telephone	+223-223 0393	Fax +223-222 5844
	Email	alyongoiba@yahoo.fr	
■	Country Organization	<b>Malta</b> National Information Society Advisory Council, Ministry for IT and Investment	
	Contact person	Isabelle Bonello	
	Street	168, Strait Str.	
	City	Valetta	
	Telephone	+356-2125 5495	Fax +356-2125 0700
	Email	isabelle.bonello@gov.mt	
■	Country Organization	<b>Mauritania</b> Secrétariat d'Etat chargé des Nouvelles Technologies	
	Contact person	Ahmedou Ould Ahmed	
	Email	cnmesc@mail.mauritania.mr cnes.rim@mauritania.mr	
■	Country Organization	<b>Mauritius</b> National Computer Board	
	Contact person	Kemraz Mohee	
	Street	7th floor Stratton Court, La Poudrière Street	
	City	Port Louis	
	Telephone	+230 210 5520	Fax +230 212 4240
	Email	ifap@ncb.intnet.mu	

Country	<b>Mongolia</b>
Organization	National Commission of Mongolia for UNESCO
Contact person	Norov Urtnasan, Secretary-General
Street	Avenue de la Révolution
City	PO Box 38 Ulaanbaatar
Telephone	+976-11-32 2612
Email	mon.unesco@mongol.net
	Fax +976-11-32 2127
Country	<b>Netherlands</b>
Organization	National Commission for UNESCO
Contact person	Vincent Wintermans, IFAP Committee Secretary
Street	Kortenaerkade 11
City	2502 LT Den Haag
Telephone	+31 70 4260 268
Email	vwinter@nuffic.nl
Country	<b>New Zealand</b>
Organization	National Commission for UNESCO
Contact person	Laurence Zwimpfer
City	P.O. Box 1666 Wellington
Telephone	+64-4-473 5536
Email	zwimpfer@xtra.co.nz
	Fax +64-4-473 5518
Country	<b>Nicaragua</b>
Organization	Ministerio de Hacienda y Crédito Público de Nicaragua
Contact person	Luis Montealegre
Street	Centro Cívico, Módulo K
City	108 Managua
Telephone	+505-222 6437
Email	luismontealegre@mhcp.gob.ni
Country	<b>Niger</b>
Organization	Direction de l'Informatique, Ministère des Finances et de l'Economie, Direction
Contact person	Maman Sani Zakari, Director
City	P.O. Box 259 Niamey
Telephone	+227-72 2464
Email	webmaster@delgi.ne
	comnat@intnet.ne
	Fax +227-72 2327
Country	<b>Norway</b>
Organization	Sub-Committe for Culture and Communications, Norwegian National Commission
Contact person	Erstad Youmna
Street	P.O. Box 1507
City	Vika N-0117 Oslo
Telephone	+47-2283 1689
Email	yer@unesco.no
	Fax +47-2224 7282
Country	<b>Pakistan</b>
Organization	Pakistan Scientific & Technology Information Centre
Contact person	Director General
Street	c/o 30 UNESCO House, Sector H-8
City	Islamabad
Email	pastic@isb.pol.com.pk
Country	<b>Philippines</b>
Organization	National Commission for UNESCO, Commission's Communication Committee
Contact person	Florangel Rosario-Braid
Street	2330 Roxas Boulevard
City	Pasay City
Telephone	+63-2-834 4818
Email	unesco-ph@mozcom2.mozcom.com
	Fax +63-2-831 8873

■ Country	<b>Poland</b>
Organization	Polish National Commission for UNESCO
Contact person	Tomasz Orłowski, Secretary-General
Street	Palac Kultury i Nauki, 7 pietro
City	00-901 Warszawa
Telephone	+48- 22- 620 33 55 / 624 24 96      Fax +48-22- 620 3362
Email	unesco@internet.pl
■ Country	<b>Portugal</b>
Organization	Observatory for Communication
Contact person	Francisco Rui Cadima, Director
Street	Palacio Foz, Praça dos Restauradores
City	1250-187 Lisbon
Telephone	+351-21 322 1319      Fax +351-21-322 1320
Email	frucadima@obercom.pt
■ Country	<b>Republic of Korea</b>
Organization	National Commission for UNESCO
Contact person	AUH Taik-sup
Street	C.P.O. 64
City	Seoul
Telephone	+82-2-755 1105
Email	jwnoh@unesco.or.kr
■ Country	<b>Russian Federation</b>
Organization	National Committee for the Information for All Programme
Contact person	Kuzmin Yevgueny, Chairperson
Street	2a, 1st Basmanny Side St.
City	107066 Moscow
Telephone	+7-095- 263 2661      Fax +7-095-921 4566
Email	contact@ifap.ru
■ Country	<b>Serbia and Montenegro</b>
Organization	National Committee for ICTs
Contact person	Bozidar Radenkovic, President
Street	Knesa Milosa 26
City	11000 Belgrade
Telephone	+381-11-3068 401
Email	boza@fon.bg.ac.yu
■ Country	<b>Slovakia</b>
Organization	Katedra Informatiky a vypoctovej Technky
Contact person	Tibor Krajcovic
Street	Ilkovicova 3
City	Bratislava
Telephone	+421-2- 6249 1548
Email	tkraj@dcs.elf.stuba.sk
■ Country	<b>Spain</b>
Organization	Direccion General para el Desarrollo de la Sociedad de Informacion
Contact person	Rafael Chamorro, Coordinador de la Unidad de
Street	Alcala, 50, Palacio de Comunicaciones
City	28071 Madrid
Telephone	+34-91 346 2237      Fax +34-91 346 2653
Email	rafael.chamorro@setsi.mcyt.es
■ Country	<b>Swaziland</b>
Organization	University of Swaziland
Contact person	Themabela Thwala, Director
City	Private Bag 4 Kwaluseni
Telephone	+268-51 84011      Fax +268-404 5448
Email	dlunesco@africaonline.co.sz

- Country **Thailand**  
 Organization Mass Communication Committee of  
 the Thai National Commission for UNESCO  
 Contact person Savitri Suwansthit, Secretary-General  
 Street Ratchadamnoen-Nok Avenue  
 City 10300 Bangkok  
 Telephone +66-2-628-5646 Fax +66-2-281 0953  
 Email thainat@emisc.moe.go.th
- Country **Tunisia**  
 Organization National Commission for Education, Science and Culture  
 Contact person Fatma Tarhouni, Secretary-General  
 Street 130, boulevard du 9 avril 1938  
 City 1006 Tunis  
 Telephone +216-7132 8290 Fax +216-7132 1014  
 Email comnatu@edunet.tn
- Country **Turkey**  
 Organization Scientific and Technical Research Council of Turkey  
 Contact person Tugrul Yilmaz, Director of ULAKBIM  
 Street YOK binasi B5 Blok 06539 Bilkent  
 City Ankara  
 Telephone +90-312- 298 9302 Fax +90-312-298 9393  
 Email tugrul@ulakbim.gov.tr
- Country **Ukraine**  
 Organization UNESCO International Research and Training Center  
 for Information  
 Contact person Vladimir Gritsenko, Director  
 Street 1, Mikhailivska  
 City 01018 Kyiv  
 Telephone +380-44-238 1691 Fax +380-44-229 5926  
 Email ukgs@mfa.gov.ua
- Country **Uzbekistan**  
 Organization National Agency of Uzbekistan for Communication and Information  
 Contact person Abdulla Oripov, Director  
 Street 54, Buyu Ipak yuli Street  
 City 700077 Tashkent  
 Telephone +998-712-67 0542 Fax +998-712-67 0538  
 Email unesco@natcom.org.uz

# IFAP

Secrétariat  
UNESCO  
Secteur de la communication et de l'information  
Division de la Société de l'information  
1, rue Miollis  
75732 Paris cedex 15  
France

Tel. + 33.1.45.68.45.00  
Fax + 33.1.45.68.55.83  
E-mail [ifap@unesco.org](mailto:ifap@unesco.org)

**[www.unesco.org/webworld/ifap](http://www.unesco.org/webworld/ifap)**

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