



United Nations
Educational, Scientific and
Cultural Organization

Understanding Information Literacy: A Primer

An easy-to-read, non-technical overview explaining
What “information literacy” means, designed for busy public
policy-makers, business executives, civil society administrators
and practicing professionals

By Forest Woody Horton, Jr

The views expressed are those of the author and not necessarily those of UNESCO.

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion what so ever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Recommended catalogue entry:

UNESCO Information for All Programme

“Understanding Information Literacy: A Primer”

Edited by the Information Society Division, Communication and Information Sector Paris: UNESCO, 2007. – vii, 94 p, 21 cm.

I – Title

II – UNESCO

III – Information for All Programme

Published in 2007 by the United Nations Educational, Scientific and Cultural Organization

7, place de Fontenoy, 75352 Paris 07 SP, Paris, France

Composed and printed in the workshops of UNESCO

© UNESCO 2008

Printed in France

All rights reserved

(CI-2007/WS/18 – CLD 3008.7)

Table of Contents

Foreword	i
Acknowledgements	iii
Preface	vii
Part I – Background and Introduction – A 21st Century Paradigm	1
Part II – Priority Information Literacy and Lifelong Learning Initiatives in the Context of Four Key Sector Domains	15
Part III – Advocacy and Awareness-Raising; Collaboration and Partnerships	33
Annex A – Glossary of key definitions, abbreviations and acronyms	53
Annex B – The information literacy life cycle explained	59
Annex C – Key declarations, proclamations and topics promulgated by and discussed at international and regional information literacy expert meetings	63
Annex D – Some models of best practice	73
Annex E – Major information literacy institutional resources (Websites, Databases, Directories, Clearinghouses, Information Centers)	89

Foreword

UNESCO is strongly advocating the building of knowledge societies where the power of information and communication helps people access the knowledge they need to improve their daily lives and achieve their full potential.

Increasingly, the concept of information literacy is considered as crucially important to enable people to deal with the challenge of making good use of information and communication technology.

Indeed, governments, intergovernmental and non-governmental organizations, academia, civil society and the private sector have all come to the conclusion that computers, the Internet, and hand-held wireless devices are driving today profound changes in the way pictures, voice, and information are being created, transmitted, accessed and stored. But they also conclude that learning computer and media technologies are not enough if nations, institutions and individuals are to reap the full benefits of the global knowledge societies.

In this context, 'information literacy has become a new paradigm in the information and communication landscape. Sometimes other synonyms such as 'information fluency' or 'information competency' are being used instead. How the concept is defined, understood and applied differs at this early stage in the concept's development from one nation, one culture or one linguistic group to another. However, the Alexandria Proclamation adopted by the High Level Colloquium on Information Literacy and Lifelong Learning in November 2005 defines information literacy as a mean to **“empower people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals”**.

In the digital age, what information literacy means is that understanding technologies is not enough. What everyone must also do is learn how to utilize those incredibly diverse and powerful technologies efficiently and effectively to search for, retrieve, organize, analyze,

evaluate information and then use it for specific decision-making and problem-solving ends.

Information literacy is described in the Alexandria Proclamation as the **“beacons of the Information Society, illuminating the courses to development, prosperity and freedom”**. In developing the patterns of learning, cultural expression, social participation, and providing opportunities for development, information literacy is at the heart of UNESCO’s broader mandate for the construction of knowledge societies.

As concrete examples, UNESCO’s Information for All Programme (IFAP) decided to focus its actions on information literacy as one of its three priority areas, and initiated and promoted a series of activities, including the organization of international expert meetings, funding and implementing several dozen pilot projects, production of several publications such as this one, and providing an Internet portal for use by practicing professionals and others interested in learning about the concept and its applications.

UNESCO asked Forest Woody Horton Jr, an international information management expert, to prepare this Primer. I hope that it will be widely used, especially by professionals in both the public and private sectors assigned leadership responsibility for introducing, applying and evaluating Information Literacy strategies, policies, programmes and projects into their countries or organizations. I recommend this Primer to them.

Abdul Waheed Khan
Assistant Director-General for
Communication and Information
UNESCO

Acknowledgements

The author is indebted to too many individuals and organizations to try to single them all out here because the risk is great that some might be inadvertently overlooked. However, there are some who warrant special recognition.

UNESCO is to be commended for its international institutional leadership in the field. For example, the organization has:

- created an Internet Literacy Portal to access a comprehensive database of worldwide IL initiatives of all kinds that are being pursued, including a comprehensive International IL Directory jointly developed with IFLA;
- established the Literacy Initiative for Empowerment (LIFE) programme (women and out-of-school girls in the 33 countries with illiteracy rates of over 50% or illiterate populations greater than 10 million);
- was the driving force behind establishing the United Nations Literacy Decade (2003-2012);
- established and promoted the International Literacy Day idea;
- is leading the UN Decade of Education for Sustainable Development initiative, highlighting the central role of education;
- co-sponsored several major international and regional IL conferences in the last several years - the first in Prague, the Czech Republic, in 2003; another in Colombo, Sri Lanka, in 2004; one in Bangkok, Thailand, in 2005; one in Patiala, India, in 2005; another in Alexandria, Egypt, in 2005; one in Ljubljana, Slovenia, in 2006; and another in Kuala Lumpur, Malaysia in 2006;
- established the Memory of the World Programme;
- collaborated closely with the Associated Schools Project Network (ASPNet) schools in promoting Information Literacy; and
- produced the 2006 Global Monitoring Report – Literacy for Life.

Perhaps foremost among individuals deserving to be singled out is Abdelaziz Abid, Senior Programme Specialist, Communications and Information Sector, UNESCO, who was assigned principal staff

responsibility in 2002 within UNESCO headquarters for spearheading the Information Literacy (IL) paradigm. Mr Abid ensured that IL was incorporated into, and coordinated with UNESCO planning, programming, budgeting, and project management structures and processes, most notably into the Information for All Programme (IFAP). He was dedicated to advancing the IL paradigm until his retirement in July 2007.

Besides Mr Abid, Mr Koïchiro Matsuura, Director-General of UNESCO, as well as Mr Abdul Waheed Khan, Assistant Director-General for Communication and Information of UNESCO, and Ms Elizabeth Longworth, former Director of the Information Society Division within that Sector, and her colleagues also deserve special recognition.

Additionally, Ms Patricia Senn Breivik, now retired, longtime dean and director of various American university libraries and library schools, must also receive high marks for her role in indefatigably advancing the IL paradigm internationally. Ms Breivik established and chaired the National Forum on Information Literacy which, along with UNESCO and several other pioneering IL international organizations and institutions such as the International Federation for Library Associations and Institutions (IFLA), and the International Association for School Libraries (IASL), created the International Information Literacy Alliance and co-sponsored several international meetings.

I need to also acknowledge the contributions of several former Chairpersons of the U.S. National Commission for Libraries and Information Science (NCLIS), Jeanne Simon, Martha Gould and Joan Challinor, for their unstinting support of early NCLIS sponsorship and pro-active involvement in planning, implementing and encouraging various IL initiatives, both nationally in the U.S., but most importantly internationally. Robert S. Willard, former Executive Director of NCLIS, and noted Abraham Lincoln scholar, also deserves high praise for his strong backing of these initiatives.

Last, but certainly not least is Paul Zurkowski, who is almost universally credited with being the first person to use the term “information

literacy” in 1974. It was my great personal privilege to have been a colleague of Mr Zurkowski (then President of the Information Industry Association) at the time he conceived this idea, and I greatly benefited professionally from his wisdom, insights, leadership and enthusiasm.

Forest Woody Horton, Jr
Author

Preface

If you only remember one paragraph from this publication, here is the one we hope it will be:

“Over the course of your lifetime, the more you learn and thereby come to know, but especially the sooner you master and adopt proficient learning skills, habits and attitudes – finding out how, from where, from whom and when to search for and retrieve the information that you need to know, but have not yet learned – the more information literate you thereby become. Your competency in applying and utilizing those skills, habits and attitudes will enable you to make sounder and timelier decisions to cope with your personal and family health and welfare, educational, job-related, citizenship and other challenges.”

In essence, explaining in an easy-to-understand, non-technical fashion to senior and middle level public and private sector executives – in government ministries, private enterprises, academic institutions, and not-for-profit organizations – how to find, retrieve, organize, evaluate and effectively use information is what this publication is all about. The incredible volume and diversity of both electronic digital and print-on-paper textual, graphical and statistical information resources being produced and becoming available instantly via the Internet, as well as from traditional “bricks and mortar” knowledge institutions such as publishers, libraries, archives, and museums is breathtaking and overwhelming.

The audiences for whom this publication is specifically targeted are:

- Government ministry officials at all levels – national, provincial and local – in key relevant areas such as education, ICT, culture, commerce, local development and others, who are responsible for formulating, implementing and assessing the continuing need and effectiveness of national public policies and programs in those areas;

- Civil Society administrators at all levels – national, provincial and local – especially in education, ICT, culture, commerce, local development and other kinds of NGOs which are dedicated to serving as a partner to government in helping to establish national priorities, promulgating, implementing and assessing the continuing need and effectiveness of national public policies and programs
- Human resources and personnel managers, in both for-profit and not-for-profit enterprises, who are responsible for workforce development, career development, professional development, and education and training of their managers and employees;
- Professional societies, business and industry associations, labor, trade and craft unions, and foundations, which are responsible for serving their respective constituencies and clientele by publicizing and promoting professional and career development programs, issuing standards and guidelines, as well as mounting conferences and training workshops, and other similar events;
- Mass media, technical information and communications, and public interest group professionals, especially those who are specializing in tracking and reporting for television, radio and Internet blogs on: current developments in ICT technologies, such as hand-held wireless mobile devices, and Internet search engines; on competition in the Global Information Society; on ways of working smarter for workforce development; and on important breakthroughs in information science and technology research;
- Commercial enterprise executives, whether in multi-national, medium-size or small size enterprises, who market and offer non-formal education and training product lines appropriate to Information Literacy and Lifelong Learning; also, owners and managers of telecenter, cyber cafe and other kinds of local community Internet access businesses; and
- International, regional and national intergovernmental organizations (IGOs) officials with missions to strengthen the dialogue between stakeholders, and create positive and harmonious conditions for undertaking collaborative policies, programmes and projects within their respective spheres of influence. For example, the Development Goals of the United Nations Millennium Declaration and the United Nations Declaration of Human Rights.

This publication is not a scholarly or academic treatise. Rather, it has been designed as a “made simple” publication, a ready reference for consulting from time to time by busy officials and executives having to cope every day with the complex and daunting challenges being faced by all enterprises and institutions, public and private, as they make the transition to Knowledge Societies at the beginning of the 21st century.

Readers, who have limited time and want to jump directly to specific recommendations in various areas such as education, health, business or governance, should turn to Part II and go directly to their special interest area, and/or go to one of the annexes for detailed information.

The author takes full responsibility for any inadvertent misrepresentations of published statements attributed to cited authors and sources.

Part I – Background and Introduction – A 21st Century Paradigm

1. *What is Information Literacy, where did it come from, how is it related to lifelong learning, and to other kinds of literacies, and why is it critically important* to every nation, its institutions, and its citizens, in order for them to perform competitively and productively in a Digital World and a 21st Century Global Information Society, as well as to promote greater social inclusion, and freedom of expression and opinion

Multiple Streams of Research and Ideas

The concept of “information literacy” cannot be traced to the work of a single author. Nor to a single study or a single stream of research. Nor to a single driving force or cause, such as poverty, disease, illiteracy, or unemployment. Rather, the idea reflects a convergence of thinking from many developments, disciplines, sectors and areas of research. Key among them:

- The International Action Plan for Implementing Resolution 56/116 of the Dakar Framework for Action, sometimes referred to as the “Founding Resolution” for the United Nations Literacy Decade (2003-2012), called for achieving a 50% improvement in adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults; the Plan calls for a *renewed vision of literacy that goes beyond the limited view of literacy that prevailed in the past*;
- A paper prepared by Paul Zurkowski, former President of the U.S. Information Industry Association, in 1974, for the National Commission for Libraries and Information Science (NCLIS), in which he talked about the need for people to become “*information literate*” if they were to survive and compete in an emerging Information Society;

- Changing definitions, theories and standards of educational reform movements begun during the 1960's and still continuing, that place increasing emphasis on critical thinking and learning to learn, and less emphasis on the rote memorization of facts and figures;
- Changing definitions, theories and standards of literacy that expanded the very use of the word literacy to mean more than just the conventional (what are now called) "basic literacies" of reading, writing, and numeracy, to apply to other areas; thus we began to see "*computer literacy*," "*media literacy*," "*cultural literacy*," and so on; moreover the needs of an individual living in the 21st Century to cope with and deal effectively with life's many challenges are significantly different than were the needs of the 20th Century individual;
- The computer revolution, including the PC and the Internet;
- The media revolution, including wireless, mobile and multi-media technologies;
- A Presidential Committee on Information Literacy established by the American Library Association; Final report published in 1989;
- The long-standing challenges faced by school librarians and teachers to work together to find better ways of teaching students to learn to learn, not just complete homework assignments on time, memorize hundreds of facts and historical events, and study efficiently for examinations they must pass with high grades; and
- The development of e-Learning and Distance Education technologies and teaching/learning modalities, thus permitting both youths and working adults to learn in the home and in the office, and on their own time, often integrating with and overlapping/ multi-tasking with their personal, family and job responsibilities.

How are the two concepts – Information Literacy and Lifelong Learning – inter-related?

Both of these concepts are:

- Largely self-motivated and self-directed, which is to say, they do not require the mediation of an outside individual, organization or other kind of helper, beyond the learner him/herself, although advice and assistance can be helpful;

- Self-empowering, which means that they are aimed at helping people of all age groups, genders, races, religions, ethnic groups, and national origins, and no matter what their social or economic status may be, or role and place in their communities or society in general; and
- Self-actuating, which is to say the more information literate an individual becomes, and the longer the person sustains good information literacy learning and practicing habits and attitudes, the greater the self-enlightenment that occurs, especially if practiced over an entire lifetime.

Ideally, one should become information literate, and practice those habits and skills over one's entire lifetime.

2. The Family of 21st Century Survival Literacies

The family of 21st Century "survival literacies" includes six categories: (1) the Basic or Core functional literacy fluencies (competencies) of reading, writing, oracy and numeracy; (2) Computer Literacy; (3) Media Literacy; (4) Distance Education and E-Learning; (5) Cultural Literacy; and (6) Information Literacy. The boundaries between the various members of this family overlap, but they should be seen as a closely-knit family.

For example, it has been pointed out by many experts that the common public perception is that a person is either "literate" or "illiterate," when the reality is that literacy encompasses a wide range of individual functionalities, each of which can be observed and measured on a scale of competency – *beginner*, *intermediate* and *advanced*. In this view, literacy is comprehensive in the sense that it includes many learnable skills, and positive attitudes and behaviors that impact every aspect of one's life. Moreover, as literacy permeates a family, a workplace, a classroom, or a place of social or religious gathering, it becomes a "family affair" and "infects" all members of the family or gathering or community.

In short, Information Literacy *must not be seen as standing alone*, as if it were some arcane technical subject that would be learned and then forgotten about. Also, literacy should not be viewed as a single,

high point on a scale of learning that can be reached, like scaling a ladder, and then the learner can sit back and feel content and self-satisfied because a personal goal has been reached. Rather, there is no “upper limit” to literacy because it is a continuum, *more like a voyage* that must be undertaken over one’s lifetime.

Let’s briefly look at each kind of these major 21st Century literacies in turn and point out how they are interconnected.

- **Basic or Core Literacies**

This term still applies to the core or foundation literacies of learning how to read, how to write, and how to perform simple numeracy tasks necessary in everyday life. If and when an individual, normally through formal schooling, but sometimes through non-formal school, or being taught at home, acquires these basic skills and competencies, they are said to be “*literate*.” Thus, the term “literacy” is still most commonly used to refer to the acquisition of the basic competencies of reading, writing, and numeracy.

Although one can, theoretically, become *information literate* without going to school (the case of “street smart” individuals who learn to cope with life’s challenges even though they are uneducated in the formal sense), realistically, for most of us, it is imperative that we have a sound schooling in the “three R’s” as they are sometimes called – reading, (w)riting, and (a)rithmetic.

Sometimes educators also refer collectively to these three basic literacies as *print* literacies, emphasizing that they are (were) essential to a print-oriented society where most information was authored, recorded, published, disseminated and communicated using print media. However in the modern electronic multi-media society in which we now live, most data and information, throughout its information life cycle (from “birth to death” as it were) is moved along in a *digital format*. That is to say, it is invisible to the naked eye until and unless it is transformed into readable characters (“printed”) in some language at some stage.

Moreover, readers of this publication, especially those from many parts of Africa, Asia and Latin America, know that much information is moved along and communicated in oral forms, not written or printed forms. This is sometimes referred to as “*oralcy*” or the “*oral tradition*.” Anthropologists and historians emphasize the importance of “oral histories” as a way of preserving cultures and traditions, where a population (e.g. living in geographically remote conditions) hands down its language, its culture, its more’s and its traditions in oral form rather than written form.

But to return to our main subject here, suffice it to say that the basic literacies of reading, writing and numeracy are normally a pre-condition, but insufficient pre-condition, to becoming information literate.

- **Computer Literacy**

Computer literacy means the efficient ability to know how to use and operate computers as information processing machines. It is one half of the ICT literacies, the other half being Media Literacy. It is convenient to subdivide Computer Literacy into the following categories:

a. Hardware Literacy. Hardware literacy refers to the set of basic operations you need to know in order to use a computer such as a Personal Computer (PC) or Laptop, or perhaps a combination handheld device such as BlackBerry, efficiently. For example, knowing how to use a keyboard, a mouse, distinguish between the functions of a printer, a scanner, other peripheral devices, the mainframe processor, and the monitor. Hardware literacy deals with “visible,” and tangible components, and their operations.

b. Software Literacy. Software literacy refers to the “invisible” set of general-purpose procedures and instructions that the computer or telecommunications hardware requires in order to perform its functions properly. Major kinds of software literacies include: first and foremost, the basic operating software system which the computer uses, such as Windows (one of the many versions available); word processing software (e.g. Word or WordPerfect); spreadsheet software for dealing with numerical data (e.g. Excel); presentation/

publishing software for making presentations such as PowerPoint; and information service provider software for using the Internet, including searching the WWW and sending and receiving e-mail. Software literacy deals with intangible and “invisible” things.

c. Applications Literacy. Applications literacy is a term that refers to knowledge of, and the skills necessary to efficiently use various special-purpose software packages that are on the market, such as software that helps a firm manage its finances, its personnel, its equipment and inventories, its office or factory or laboratory space, its work flows, its production schedules, its order processing systems, its market and sales reports, and so on.

- **Media Literacy**

Media literacy embraces everything from having the knowledge needed to use old and new media technology to having a critical relationship to media content in a time when the media constitute one of the most powerful forces in society. Proponents of media literacy view increased media knowledge in society as contributing to participation, active citizenship, competence development and life-long learning. In this way, the population’s media literacy becomes a necessary part of ensuring a democratic society.

Leading researchers in the field often use the following trichotomy to define media literacy: media literacy implies having *access* to the media, *understanding* the media and *creating/expressing* oneself using the media (Buckingham 2005, Livingstone 2005).

Access includes having the use of media as well as media habits: the ability to use functions and navigation competence (e.g., changing TV channels/channel orientation, using Internet links); competence in controlling media (e.g., using interactive on-line systems, making financial transactions on the Internet); knowledge of legislation and other regulations in the area (e.g., freedom of speech, protection of privacy, knowledge of the meaning of harmful material, protection from ‘spam’). *Understanding* includes having the ability both to understand/interpret and to gain perspective on media content as well as having a critical attitude. *Creating* includes interacting with the

media (calling radio programmes to express ideas, participating in discussion rooms on the Internet, e-voting, etc.) as well as producing media content. Having the experience of producing material for different media helps form both a better understanding of and a critical approach to media content.

Thus, media literacy is a question of skills, knowledge and competencies, but it is also dependent on the institutions, texts and techniques through which information and communication are mediated. Analytically, the concept of media literacy is used both at the individual and the societal level.

The term “*media*” is a collective noun referring to all kinds of communication mediums. Whereas the term “*medium*” is a singular noun referring to just one communications mode. Sometimes the term “*mass media*” is used to refer to mediums intended to reach very large audiences, such as broadcast and cable television, radio, motion pictures, newspapers and magazines. Sometimes the phrase “*in multiple mediums and formats*” is used to refer to communication and dissemination of information in many different mediums, and many different formats (e.g. text, graphics, photos, statistical tables, etc.).

Marshal McLuhan is usually credited with the phrase “*the medium is the message,*” meaning that the *content* of a message is often inextricably connected with, and its format arranged by and even largely dictated by the specific medium used to transmit that message. Thus, because of time and financial limitations, messages transmitted using the medium of television must be formatted and arranged in a certain optimal way for the “message to get across.” In short, it must not be too long, expressed to obtuse language, and so on.

Interactive media permit the user to interact directly with the computer or telecommunications device, such as the “touch screen” mode so common nowadays in restaurants, hotels, and other service establishments.

- **Distance Education and E-Learning**

Distance Education or E-Learning refers to the telecommunications technologies that are employed so as to permit students or learners to access teachers, class work assignments, examinations, and carry on dialogues with fellow students and instructors without ever having to visit a physical classroom or a campus. In other words, students utilize virtual classrooms, and there may be no physical contact with an instructor or materials such as textbooks whatsoever. Or, there may be a mixture of both physical and virtual modalities. A professor located in Alexandria, Egypt, for example, may teach a course on Pharonic Egypt while students may be geographically located anywhere in the world.

- **Cultural Literacy**

Cultural Literacy means a knowledge of, and understanding, of how a country's, a religion's, an ethnic group's, or a tribe's traditions, beliefs, symbols and icons, celebrations, and traditional means of communication (e.g. orality) impact the creation, storage, handling, communication, preservation and archiving of data, information and knowledge, using technologies. An important element of understanding Information Literacy is an awareness of how cultural factors impact, perhaps both positively and negatively, the efficient use of modern information and communication technologies. The dramatic and pervasive spread of cell telephones and wireless communications in all continents, but especially Africa, Latin America and Asia, is in no small measure the result of the willingness of local populations to perceive, accept and adapt those technologies into their cultures.

- **Information Literacy**

Information Literacy has been defined above and is elaborated upon throughout this publication.

3. The Eleven Stages of the Information Literacy Life Cycle

There are dozens, perhaps even hundreds of definitions of Information Literacy, and each author and organization lists its own component steps, stages or phases. Virtually all definitions, however, have in

common one aspect, which is that there are several steps or stages through which the application of the Information Literacy process progresses, in a more or less progressive sequence. That is why we call this multi-stage process a “life cycle.”

We have decided to use *eleven discrete stages* in our description of the Information Literacy life cycle. Some experts may combine several of these steps or stages into one. And others may break one stage into more than one step. We concede that there is no “best” answer to the identification of stages or steps because the paradigm is still too new.

The reader is urged to turn to **Annex B** where there appear, in a single diagram, all eleven stages. And at each stage, five different aspects or components are listed so as enable the reader to fully understand each stage. You may wish to “keep one finger” on Annex B as you read the following text. If you are in a hurry, just glancing at the Annex B diagram will give you an overall, bird’s eye view of the entire Information Literacy idea.

- **Stage One:** Realize that a need or problem exists that requires information its satisfactory resolution.

In short, if it does not even occur to you when facing a problem or trying to make a decision that information could help you in formulating the problem or decision more accurately and completely, then, in a manner of speaking, you may be said to be information illiterate at the very beginning of the information literacy life cycle. The diagram in Annex B identifies helping human resources to whom you may turn to get assistance. It also identifies various tools, methods, approaches and techniques that could be helpful to you at this stage. Moreover, the diagram identifies the various domains and contexts where the need, problem, or decision commonly arises. And, finally, the graphic identifies both desired or functional outcomes from following the advice offered, and the negative or dysfunctional outcomes that could occur by ignoring the advice.

- **Stage Two:** Know how to accurately identify and define the information needed to meet the need, solve the problem, or make the decision.

While you may know in general terms the kind of information you need to solve a problem, meet a challenge, or take a decision (e.g. broadly speaking, “health information” to deal with a sickness; or “financial advice information” to deal with a financial problem), the librarian is fond of pointing out that there are certain “tricks,” conventions and rules regarding the terminology that ideally you should use. Sometimes this skill is also referred to as “searchable” terms.

- **Stage Three:** Know how to determine whether the needed information exists or not, and if it does not, know how to create, or cause to be created the unavailable information (also referred to as “creating new knowledge”).

This is where library reference tools and search engines come into play and “do their best work.” If, for example, you do a Google search and find absolutely nothing on the topic you are searching for, then you must turn to more conventional library tools to help. If you were near a public library for example, asking for the assistance of a reference librarian would be a wise move. But as you can see from the Annex B diagram, you might also locate a subject-matter expert in the field or area for which you are searching for information. Or, there are expert information brokers who could assist you. Or, perhaps there is a mentor in your community, school, church, or other place that you might consult.

- **Stage Four:** Know how to find the needed information if you have determined that it does, indeed, exist.

This is where having done your “homework” by attending an information literacy workshop will come in handy. Or, short of having been able to physically attend such training, perhaps you will have located an online tutorial that teaches you how to search for information known to exist.

- **Stage Five:** Know how to create, or cause to be created, unavailable information that you need; sometimes called “creating new knowledge.”

Once again, the diagram in Annex B should be consulted. Among the options available to you at this point, depending on how you weigh variables such as the expense, time you have available, how accurate the information you need must be, how current it must be, and so on, you may find a volunteer willing to undertake the task, find additional resources to defray the expense of the task should be unable to afford it, or pay yourself for undertaking the job.

- **Stage Six:** Know how to fully understand found information, or know where to go for help if needed to understand it.

See the Annex B diagram once more. Suppose you’ve found the information you require, but you simply are unable to understand it – perhaps partially, but not completely. It may be too technical. It may be in a format you are comfortable with (e.g., it may be in statistical tables and you were never very good at interpreting numeric data, and would much prefer graphical or textual information or vice-versa). It may be too detailed, or, conversely, it may be too brief and general. In short, even though you justifiably pride yourself in your information literacy, even if the treasure has been located, it may not be usable – like the treasure map without a key.

- **Stage Seven:** Know how to organize, analyze, interpret and evaluate information, including source reliability.

You have the information “in hand,” as it were, but it needs to be organized or reorganized in order to make sense of it. Following that, you need to analyze and interpret it. Then, finally, at this stage, you need to make a judgment as to its reliability, credibility and authenticity. It may *appear* to be, but in fact turn out to be bogus. Returning to organizing or reorganizing, we are talking here about digesting, synthesizing, summarizing and abstracting if the material is too lengthy. Analysis and interpretation go to understanding and drawing conclusions from inference or deduction. If your skills in that arena are not

too sharp, you may need a Sherlock Holmes or Agatha Christie to help you!

- **Stage Eight:** Know how to communicate and present the information to others in appropriate and usable formats and mediums.

If you are an employee of a business firm, or a staff person working in a ministry or association or other Civil Society organization, you may well have to communicate the information you've found to many other individuals and organizations. Of course, you can always pick up the telephone in your place of business, or use your personal cell phone. But that is only one option open, and you must decide whether to utilize other communications mediums and formats, some pre-electronic, others electronic. These days we utilize e-mail to a greater and greater extent, but the fax and mails are still available to us. Moreover, as was pointed out above, the styles of different information consumers vary widely – some prefer numbers, other pictures, and still others narrative text.

- **Stage Nine:** Know how to utilize the information to solve a problem, make a decision or meet a need.

This stage often puzzles information professionals, because they often see their professions as “leading the horse to water,” as it were, “but not forcing the animal to drink.” Which is to say, they see their job as essentially an intermediate facilitator, not an end-user consultant? “Too bad” is their lament, if they encounter an information consumer that stumbles at this stage in using information in inappropriate ways. For example, if you have been researching health and medical information, and succeed in locating it, you may well decide not to use it. Health professionals remind us in this regard that sometimes finding out that you have a certain gene that causes, let us say, (what is currently at least) an incurable disease, such as Alzheimer’s Disease, is the wrong thing to have done in the first place because you may be mentally or emotionally unprepared to deal with the consequences of merely knowing that. Of course, many of us scoff at this attitude and say, “how can you deal with a disease if you don’t even know you have it, or have a predisposition to acquire it

genetically?” But the reader is reminded there are still many people on this planet who live by the axiom “ignorance is bliss” and “what you don’t know can’t hurt you.”

- **Stage Ten:** Know how to preserve, store, reuse, record and archive information for future use.

We may feel exhausted at this point, having gone through all of the preceding stages, and then used the information so arduously search for, found, organized, interpreted and utilized. We may feel even resentful that now this author is calling for us to stay the course a little bit longer, because there are always people who are “coming behind us” and could profit by our hard work. A half century ago, a former U.S. Vice President, Hubert Humphrey, used to say that he always believed the cure to cancer lay buried somewhere in somebody’s filing cabinet. That may or may not be true, but his point is well taken. He is really saying that if have been judicious enough to file the information away (assuming it did indeed exist), and clever enough to have devised a filing system versatile enough to allow later searching, we might well have found a crucial lead to cancer research a long time ago.

- **Stage Eleven:** Know how to dispose of information no longer needed, and safeguard information that should be protected.

Finally, with the information safely filed away for later reference and use, perhaps some of it, at least, could be disposed of. Of course, we have the “delete key” on our computer, but sometimes, if the information is sensitive or confidential, such as personal information, or business secrets, or classified government information, even disposing of it presents challenges. There are shredding machines for paper documents, but even they are not foolproof. FBI laboratory experts can tell you that taking a match to a document may not protect a criminal from the clever sleuthing of a homicide investigator. So we should be cautious and circumspect about choosing a disposing technique that is suitable and appropriate to the sensitivity of the material.

Part II – Priority Information Literacy and Lifelong Learning Initiatives in the Context of Four Key Sector Domains

1. Learning and Education: Formal Education – Primary, Secondary & Tertiary; Informal, Vocational and Continuing Education; Distance Education & E-Learning; Model Curriculums; Evaluation; Accreditation; Standards; Certification; Rewards and Recognition

The relevance and applicability of Information Literacy and Lifelong Learning initiatives can be most meaningfully illuminated and understood by focusing on four what we are calling “key sector domains:” Learning and Education, Health and Human Services, Business and Economic Development, and Governance and Citizenship. However, in order to provide context, before taking up specific recommendations for policy-makers for each of these domains, we first touch upon some general points.

Long-Standing Learning Challenges

Several centuries-old, chronic learning challenges faced by mankind that IL must help to find the answers to if Information Literacy is truly to succeed as a viable and useful idea, are helping to resolve the age old conundrums of knowing and learning:

- How to come to know (learn), and be able to recall efficiently what you already know (have learned);
- How to come to know (learn) what you don't already know, but should know;
- How to come to know what new things to learn; and
- How to know what things you don't need to learn, and should therefore not waste time learning.

A man or woman who is otherwise functionally illiterate – that is, neither can read nor write nor perform simple computations – may be smarter, more knowledgeable and wiser than a highly educated man or woman. History is replete with examples of poor and illiterate, but at the same time wise people with little or no formal schooling who became admired, envied and respected leaders in their societies during their times. We sometimes call these people “street smart.” So Information Literacy must somehow embrace the notion of acquiring practical wisdom, not just theoretical information.

Educational Reform

Learning should not be viewed as some kind of invisible and intangible “by-product” of the education process that exclusively, or mainly, emphasizes acquiring (memorizing) subject-matter content in science courses, the arts, the humanities, and so on. Rather, learning itself must be focused on and treated both as a discrete element of the educational curriculum and as an integral component of individual course syllabi. *That is, Information Literacy is a cross-cutting consideration that affects the entire curriculum, and permeates all subjects and courses.* When ministries of education, national educational systems, school policies and curriculums, and school boards come to that realization in both formal and non-formal educational settings, then they will be able to effectively introduce the concept of Information Literacy into the educational process.

Conceptual Skills vs. Practical, Hands-On Skills

Two types of skills are needed for a student to become information literate. One set of skills are *conceptual skills*, which is to say that each individual brings to the task of defining an information requirement, and then going about searching for the information, his or her own distinctive *information style* and *conceptual framework*. Becoming consciously aware of one’s own information behavior and attitudes is a crucial learning outcome. That is sometimes called *reflexive thinking*. But a second skill needed to become information literate is to acquire practical, hands-on skills for utilizing a particular kind of information resource or tool, such as how to use a search engine,

or use a spreadsheet software package, or prepare a PowerPoint presentation.

Specific Recommendations for Policy-Makers

Now we will move directly to specific recommendations which policy-makers and executives should consider when formulating IL policies, programmes and projects in the learning and education arenas for which they are responsible. These recommendations are drawn largely from the 2003 Prague, 2005 Alexandria, and 2006 Ljubljana meeting final reports, (see Annex C), but in some cases have been amplified, supplemented and/or clarified by the author.

Recommended action items follow five sets of recommendations for the highest priority target areas. The five major areas are:

- Educator preparation and professional development
- Evidence based decision making
- Active pedagogical practices
- Nourishing educational environments
- Information literacy requirement in assessment and accreditation

Recommendation#1: Educator preparation and continuing professional development are keys to improving learning outcomes through Information Literacy

Action Item A

Develop programmes for educators including schoolteachers, librarians, faculty members, mentors, parents, grandparents and community workers about the importance of Information Literacy and lifelong learning in society. For example, Science Fairs as a general educational learning tool for developing Information Literacy in K-12 students can be a novel and exciting approach.

(Educational institutions, ministries of education, NGOs, community-based agencies, family support agencies)

Action Item B

Charge teachers to write student-learning outcomes involving Information Literacy. For example, incorporating an element into an assignment such as asking students to create a webpage, undertake a video production, do a broadcast morning news program, or act as a reporter-interviewer interviewing a celebrity in a role-playing scenario.

(Schools of education, education institutions including schools, colleges, universities)

Action Item C

Develop and update Information Literacy and Lifelong Learning materials, models, and workshop formats for use at different levels: local, national and regional.

(NFIL, IFLA, ICA, UNESCO)

Action Item D

Seek ways to help change the entrenched attitude and behavior of some teachers and information specialists who seem to be professionally inclined to treat students and clients simply as “information users” or “patrons,” rather than as “whole human persons” who oftentimes desperately need information to solve problems in their everyday lives, but need to learn it in ways that do not threaten their self-respect or otherwise demean their motives, needs and wants

Recommendation #2: Decisions concerning educational policies, pedagogies, and practices should be based upon research evidence examining the relationship among Information Literacy, educational achievement, and specific learning outcomes

Action Item A

Include in assessments of human development levels conducted by international or national agencies criteria and indicators about Information Literacy based on evidence from research.

(UNDP, World Economic Forum, World Bank, ICA, UNESCO and others)

Action Item B

Encourage research agencies in different countries to include the Information Literacy level in their research assessing educational achievement and outcomes.

Action Item C

Support coherent programmes of research to reveal long-term effects of Information Literacy on student learning, adult education in formal, informal and community settings and Lifelong Learning.

(Funding agencies, colleges and universities, national research agencies, IFLA, ICA & UNESCO research initiatives)

Action Item D

Present evidence in ways that meet the information and problem-solving needs of policy makers and practitioners.

(Researchers, educational institutions, agencies using research, governmental institutions using research, community agencies using research)

Recommendation #3: Implement active pedagogical practices such as problem based learning, service learning and constructive learning that are both in support of and well supported by the practice of Information Literacy

(Educational institutions, community-based agencies)

Action Item A

Cultivate habits of inquiry that support the purpose of Information Literacy.

(Parents, grandparents, caregivers, teachers, governmental agencies, professional associations)

Action Item B

Adapt pedagogical practices to the needs of particular groups such as women, minorities, and other people with special needs such as indigenous populations, people living in remote and isolated villages, prisoners and immigrants.

(Educators in informal and formal education, service providers, adult educators)

Action Item C

Assess these pedagogical practices in terms of the degree of enhancement of needed values such as generosity, resource sharing, and social responsibility, respect of the other, professionalism, and ethical behavior.

(Researchers, assessors, evaluators, accountability agencies)

Action Item D

Look for service learning opportunities in the local community because that helps students learn more about themselves as well as how to help others, including fellow students, and research has shown that students enjoy community service that is tied directly to their classroom work because it gives them a tremendous sense of satisfaction at being able to do something useful for their fellow man while at the same time learning for themselves

Action Item E

Local governments should initiate school-community collaborations, especially to reorganize community services, while using a school and/or a public library as the hub; for example, to create “community schools” as a hybrid kind of institution (sometimes also known as family resource centers, settlement-houses-in-schools, full-service schools, or simply community centers)

Recommendation #4: Create educational environments that nourish Information Literacy including appropriate infrastructure, knowledgeable leadership, supportive policies, productive partnerships and a learning culture, including multilingualism and cultural diversity

(Funding agencies, national governments, civil society, educational institutions, private sector)

Action Item A

Coordinate Information Literacy initiatives across different countries in a region and across regions, and make use of best practices.

Action Item B

Include in an appropriate infrastructure a functional library, community networks and supportive ICT.

Action Item C

Raise awareness of policy makers on the importance and ways of including Information Literacy in formal and informal education.

Action Item D

Train school administrators in the establishment of Information Literacy initiatives.

Action Item E

Recognize the principles of Information Literacy in matters of intellectual property that govern access to information.

(Governments, international regulatory bodies, educational institutions)

Action Item F

Create programmes for active education and training of the public.

Action Item G

Disseminate messages linked to Information Literacy and information culture using channels most effective in each setting such as oral transmission, printed, audio, visual or electronic media.

Action Item H

Form “Information Literacy Quality Circles” composed of faculty, department heads, the librarian, and an educational ICT specialist, to meet regularly to discuss and share how they are integrating IL skills throughout their individual courses and the entire curriculum

Recommendation #5: Require Information Literacy as a significant criterion in student and teacher assessment and institutional accreditation

(Educational institutions, accreditation agencies, government authorities)

Action Item A

Train educators about student assessment practices that focus on Information Literacy outcomes.

(Educational institutions, accreditation agencies, government authorities)

Action Item B

Associate standards for assessment and accreditation of Information Literacy with learning outcomes rather than inputs and processes.

(Educational institutions, accreditation agencies, government authorities)

2. Health and Human Services: Emergency Food, Water and Shelter Resources; Hospitals, Clinics and Medical Personnel; Police, Fire and Ambulance Services; Disaster Response; Communications and Energy Outages; Transportation Bottlenecks & Emergency Evacuation Routes; Public Safety and Security; Individual and Family Counseling Services and Hotlines

Access to Health Information is a Human Right

The second “key sector domain” we touch upon is Health and Human Services. In the context of a universal commitment to enhanced quality of life, all citizens have a right to good health and to healthcare based on informed consent. In support of this right, all citizens are entitled to access information that is relevant to their health and the health of their families and communities. It is particularly important to underscore the necessary protections of the mother and the child as embodied in the Universal Declaration on Human Rights, and to the rights of children to have access to information about health as enshrined in the United Nations Convention on the Rights of the Child

(Article 26), and to the rights of all people to have sufficient information and understanding to give informed consent to treatment.

Recommendation #1: Access to Health Information

All nations should ensure the development and enhancement of health and healthcare information infrastructure, including the provision of courses, programmes, publications, websites, information centers and interventions to enhance the health Information Literacy of all citizens without exception.

Recommendation #2: The General Public

Targeted attention should be given to the needs of young people (in school and outside), women, men, the elderly, vulnerable groups including the handicapped, immigrants, the unemployed and those with particular needs, those in hazardous occupation or dangerous locations, and the general public.

Recommendation #3: The General Public

Each country should develop an integrated curriculum from pre-school and throughout the years of formal schooling to develop in children and young people recognition of the relationship between their environment, their own actions and their health to encourage and empower them to take responsibility for their own health and well being.

Recommendation #4: The General Public

Partnerships must be established or strengthened with existing networks, especially those involved in the development and distribution of health information. This may include The World Health Organization (WHO), NGOs with responsibility for health, wellbeing and public health, regional groups like Association of Southeast Asian Nations (ASEAN), EU and Organization of Economic Co-operation and Development (OECD).

Recommendation #5: The General Public

In the context of public health education, more robust use should be made of established channels of communication including radio (talkback and open-line programmes), television, newspapers and

journals, and telephone help lines, not only to distribute information about health, but also to strengthen Health Information Literacy.

Recommendation #6: Patients and Caregivers

Patients and their caregivers (usually but not always family or other community members) should be encouraged and empowered to ask questions to clarify their understandings so that they can give informed consent, and be provided with contact details to follow up in the event that they have questions or concerns that occur to them after the clinical consultation or in the course of treatment. Such referral should include patient advocacy and self-help groups.

Recommendation #7: Patients and Caregivers

Particular attention should be paid to not only the provision of high quality, easily understood information in a variety of formats and mediums, but also to ensuring that those undergoing treatment (and their caregivers) understand fully both the likely progress of the treatment and the need for any compliance or conformance that the clinician expects of them.

Recommendation #8: Healthcare Practitioners

Recognizing the growing importance of evidence-based practice in healthcare, those responsible for devising and delivering the initial training of healthcare practitioners should give specific and explicit attention within the curricula to the development, enhancement and demonstration of Information Literacy attitudes, expertise and behaviors.

Recommendation #9: Healthcare Practitioners

All nations, and in particular the health authorities and professional associations within those countries, with the assistance of international and translational bodies and agencies, should ensure the ongoing availability and assessment of continuing professional development in Health Information Literacy of those already in practice and, where appropriate, make this a requirement for continuing licensure to practice.

Recommendation #10: Healthcare Practitioners

Medical, nursing and allied health professionals and para-professionals should be trained to improve the Health Information Literacy skills and practices of their patients and communities and, in doing so, to recognize the need for sensitivity to the age, gender, educational level, religious convictions and ethnic and cultural backgrounds of those with whom they are dealing.

Recommendation #11: Health Administrators and Policy Makers

Those responsible for the education and training of health administrators should ensure that basic and advanced curricula include a developmental sequence of Health Information Literacy practices and skills.

Recommendation #12: Health Administrators and Policy Makers

National health authorities, in conjunction with relevant professional associations, should take steps to ensure that policy-makers and administrators are equipped with appropriate skills of Information Literacy to allow them to make high quality, evidence based decisions and to fulfill their responsibilities skillfully with regard to the human dignity of clinicians, patients and the public at large.

Recommendation #13: Professionals engaged in promoting Health Information Literacy

A central repository of high quality Information Literacy practice should be established, to be accessed by practitioners from around the world. Such Information Literacy Practices could include courses and programmes, documents and brochures, websites and forums, conferences and meetings, places and spaces, awards and accolades, and toolkits and resources.

Recommendation #14: Professionals engaged in promoting Health Information Literacy

Items for inclusion in the best practice database should be quality-assured by an international editorial panel; the best practice database should be linked with a discussion forum and professional association for practitioners, and a dedicated fund should be established,

along with a Roster of Experts willing to address suitable high-level conferences, and that resources be provided to support their attendance at events in developing countries and economies.

Recommendation #15: Professionals engaged in promoting Health Information Literacy

Research should be undertaken into the information-seeking practices of different kinds of information users (such as health professionals or members of the public), to provide a basis for the design of Information Literacy interventions.

3. Business and Economic Development: Workforce Development, Human Capital Investment and Sustainable Employability; Foreign and Domestic Trade and Competition; Immigration and Emigration

Workforce Development and Human Capital

The third “key sector domain” we focus on is Business and Economic Development. Under current globalization trends, economic development is becoming increasingly dependent upon the use of information and the learning skills of the workforce. Governments should lead Information Literacy efforts through strategic alliances with the major stakeholders, including the business community in key economic sectors, and consumers. The target groups/institutions that are key stakeholders include government, business entities, educational institutions, information producers and providers, trade and business organisations, chambers of commerce, industrial associations and NGOs. The key target communities are businesses (SMEs and large companies), public administration, and specific target communities such as unemployed, women, start-ups, minorities, immigrants and consumers.

An old cliché, ‘*making people work smarter, not just harder,*’ characterizes very simply how the IL concept defines the character of the workforce of the 21st century. Whereas during the agricultural and industrial revolution of the 19th and 20th centuries the strategic transforming resources were natural resources, and physical or material resources, respectively, in the 21st century *knowledge itself*

becomes the strategic transforming resource. We are now in the midst of an “information revolution.” Every man and woman in the office, in the factory, in the laboratory, or in a work-at-home environment, and every child and adult, whether in school, or at work and in other social settings, must learn to work and study smarter if they are to compete effectively in an increasingly competitive world, *at every stage of their lives. Information Literacy offers the promise that people are now able to become independent learners, and critical thinkers.* And when they are able to do that over the course of their lifetime, they become Lifelong Learners.

Recommendation #1: Businesses, government and educational organizations should develop a strategic plan, and mission and vision statement, for their respective Information Literacy and Lifelong Learning initiatives, in close collaboration with each other

Recommendation #2: International and regional organizations, such as UNESCO, OECD, the World Bank and the International Monetary Fund (IMF), regional banks, regional intergovernmental political organizations such as the OAS and counterparts in the Middle East, Africa and Asia/Oceania, need to require educational reforms to emphasize Lifelong Learning in all countries in their regions

Recommendation #3: Government and business organizations need to establish environments that ensure transparency (full disclosure) of their decisions and actions

Recommendation #4: Lead agencies in both the public and private sectors should promote Information Literacy and Lifelong Learning awareness and an Information Culture utilizing the media to a much greater and more effective extent

Recommendation #5: Businesses should establish a strong partnerships and alliances with information providers and producers to develop, train and sponsor Information Literacy and Lifelong Learning programmes to sharpen competitiveness, increase market share, increase domestic and foreign trade, and increase foreign and domestic direct investment

Recommendation #6: Business groups/trade associations/professional bodies/chambers of commerce should develop toolkits, training and market-driven programmes according to the specific needs and existing Information Literacy skills of specially targeted communities, including efforts to re-skill the labor force

Recommendation #7: Information Literate business enterprises must come to be defined as those which have learned how to organize and manage their data, information and knowledge flows and holdings so that their employees, suppliers, customers, and joint-venture partners can easily become aware of the existence of all these information assets, their respective storage and handling platforms, formats and mediums, how to search for and access the information, how to retrieve it, and how to use it to accomplish the business bottom line goals and objectives

Recommendation #8: Governments should designate a lead agency to spearhead the development, deployment and measurement of the impact of Information Literacy and Lifelong Learning programmes (e.g. ICT agencies/initiatives exists to capitalize/leverage on them, including VAT, tax and regulatory incentives, loans, grants and loan guarantees)

Recommendation #9: Lead agencies should coordinate the creation of a repository of who's who, best practices, experts, tools, relevant content, etc., at the country, regional and international levels

Recommendation #10: Professional organizations should identify and cultivate champions in government, business and economic development organizations in order to adopt and propagate Information Literacy and Lifelong Learning

Recommendation #11: Information Literacy and Lifelong Learning initiatives should be formulated in the context of a country's Global Information Society national agendas for reforms and advancements in culture, science, technology, the fostering of innovation and creativity, and both economic and social development

Recommendation #12: Business and industry should explore increasing the opportunities and working arrangements for making greater use of teleworking and telecommuting options; they should also build industry-specific portals with an Information Literacy component.

4. Governance and Citizenship: A Country's Public Institutions at the National, Provincial and Local Level, its Policy-makers, its Public Servants, and ultimately its Individual Citizens

Empowering People to Vote and Participate in Governing

The fourth and last “key sector domain” we take up is Governance and Citizenship. The objective of introducing Information Literacy and Lifelong Learning strategies, missions and vision statements is to empower people to actively participate in governance and citizenry to better manage and control their own lives, but at the same time respecting cultural diversity in both oral and digital societies as a public good. The special target audiences consist of political and civil society leaders, NGOs, community groups, government agencies (national and international), international and regional foundations, libraries, labor unions, educational institutions, business and industry, and the media.

Recommendation #1: Urge national governments to create nationwide councils at the provincial and local levels to brainstorm, plan and promote the idea of a national information culture and spell out how that idea can lead to the country becoming a competitive member of the Global Information Society in domestic, regional and international contexts

Recommendation #2: Urge national governments to designate a lead government ministry charged with responsibility for the planning, budgeting and implementing, including periodic monitoring, of Information Literacy and Lifelong Learning initiatives, in close consultation with the education, ICT, culture and other relevant ministries such as local development, commerce, agriculture and so forth

Recommendation #3: Urge educational institutions and information institutions including libraries, archives and museums, to create policies and programmes that would produce information literate citizens, paying special attention to disadvantaged, minority, and senior citizen populations

Recommendation #4: Urge business, industries and labor unions to develop standards and guidelines for an information literate workforce

Recommendation #5: Urge governments to create Information Literacy and Lifelong Learning policies and programmes aimed at the unemployed and the underemployed, in order to improve employability and citizenship participation

Recommendation #6: Encourage governments to make public domain information easily accessible to all citizens, including shareware, and to encourage broader involvement of public interest and civil society groups in the planning for and digitization and preservation of public domain information

Recommendation #7: Urge national governments, educational institutions, libraries, museums and archives, and other agencies and institutions to develop and disseminate civic educational programmes for children, youth and adults, including identifying ways to establish and maintain more transparent and harmonious relations between law-makers and the community constituencies they serve, as well as ways to involve citizens in providing advice and assistance to law-makers at the different stages during which new and amended laws, rules and regulations are being considered

Recommendation #8: Urge national governments to develop education and training programmes in Information Literacy and Lifelong Learning, as well as civic education programmes for immigrant populations, and potentially productive emigrant populations they wish to retain rather than risk losing

Recommendation #9: Establish informal working groups composed of national or parliamentary librarians, ICT specialists and

political science/public administration professionals, to explore ways on using information resources more efficiently and effectively to produce good laws and public policies for the country

Recommendation #10: Encourage national governments to increase the knowledge creation of their own local (indigenous) content, including the expanded publication of knowledge in native languages and dialects

Part III – Advocacy and Awareness-Raising; Collaboration and Partnerships

1. *Advocacy and Awareness-Raising:* Steps to raise the awareness of government officials, academic administrators, business and industry leaders, opinion leaders in the Civil Society, Media and not-for-profit sectors, as to how and why Information Literacy and Lifelong Learning are directly related to the ability to achieve their respective long-term goals and objectives, the need to allocate significant levels of resources and assets for those purposes, and the need to prioritize and devise strategies, mission and vision statements, action plans and monitoring mechanisms to accomplish them; and serve as tireless champions

The Information Literacy Baseline Survey

The first of the advocacy or awareness-raising initiatives, as we are calling them here, depends on first undertaking a survey of the “state of understanding” of information literacy. Annex D contains an “Information Literacy Baseline Survey” instrument which has already been tested and “vetted” in an entire region, viz. the eastern, central and southern European region. An entire region (e.g. Sub-Saharan Africa), a country (e.g. Chile), or a single institution (e.g. a government ministry) or organization (e.g. a private company, NGO, or university) may use to survey the general level of understanding of information literacy in that geographic area or institution. The surveying authority (i.e. the region, country, or institution) should then assess the level of understanding in each of the main sectors or communities (picking as an example, a country as the respondent entity). An assessment methodology follows (the reader is first urged to review the survey instrument itself in Annex D).

Within the Government Community

- Does a general awareness exist or not in the country as to just what Information Literacy is, and why and how it can help a country close the gap between the “information haves” and the “information have nots” (closing the so-called Digital Divide); if not, what kind of flagship initiatives might be taken to demonstrate Information Literacy in action
- Is there a concept of an “National Information Literacy Infrastructure” as such, that spells out authorities and responsibilities at both the national/central level, as well as at each successive lower level of government, down to the provincial and local community levels; if not, what kind of public awareness campaign might be undertaken to establish such a concept
- What kinds of highly publicized initiatives (campaigns, events, announcements, public appearances, speeches by high government officials, etc.), can be devised and implemented to remedy awareness gaps
- Which government ministry should be given the lead to serve as the principle advocate or champion, at the national level, to craft, guide, publicize and push Information Literacy initiatives forward, such as key policies, programs and pilot initiatives
- Which government ministries should come together and collaborate, as a committee or other appropriate forum, so that a cohesive set of national Information Literacy policies, programmes and other initiatives can be formulated and implemented (e.g. science and technology, ICT, culture, education, Information Society, local development, labor, business and industry, and so on)
- Are adequate levels of resources – financial, human, and material – been budgeted and programmed for support of Information Literacy initiatives

Within the Business and Industry Community

- Does an awareness exist or not as to just what Information Literacy is, and why and how it can help a country deal with unemployment, underemployment, underutilized immigrant labor, and other major job-related, national challenges
- Do labor and business leaders understand how Information Literacy can help improve the productivity and competitiveness of their businesses and workforces in the national, regional and global marketplaces, and if they do not, why not, and what can be done about it, and if they do, have enlightened policies and programs already been developed and put into motion
- What policies, programs and other initiatives can be mounted by business and labor leaders to remedy awareness gaps; should pilot tests be undertaken
- Can both a business/industry and a labor/union leader be invited to volunteer to serve as the main advocates or champions to push Information Literacy and Lifelong Learning initiatives forward within the business and industry sector

Within the Academic Community

- Does an awareness exist or not as to just what Information Literacy is, at the primary, secondary and tertiary educational levels, and how it should fit into the overall curriculum of the educational community as a whole, as well as into the curricula of individual institutions in both the formal and non-formal education and training sectors
- Do educational leaders, such as chancellors and provosts and deans in the formal higher educational community, understand how incorporating an Information Literacy curriculum into their offerings can help attract more students, and graduate more informed students who are better prepared to cope with 21st century challenges, and if they do not, why not, and what can be done about it, and if they do, have enlightened policies and programs already been developed and put into motion

- Have the schools of education and the library schools, in higher education, as well as the university library itself, taken a leadership role in helping individual faculties and departments develop model curricula, course syllabi and lesson plan outlines for teaching Information Literacy in the classroom as an integral part of existing subject matter instruction, as well as a standalone course
- Have symposia and workshops been planned and implemented for school staff and teachers, as “teacher training” opportunities, so that faculty and staff can learn the doctrinal and methodological aspects of teaching Information Literacy
- Have model curricula been developed in “early adopter” educational institutions, to serve as templates to help guide other institutions in showing how Information Literacy can be incorporated into both the institutions’ overall curriculum, in every subject, but also taught as a discrete, “standalone” subject
- Are there appropriate educational mechanisms, such as educational testing of both teachers and learners, to correlate learned skills and changed attitudes and behaviors toward information learning, so as to map the learned skills and changed attitudes and behaviors to the expected outcomes
- Has the professional assistance of educational and library associations and societies been solicited to help the institution in dealing with the aforementioned challenges, such as in the context of symposia, colloquia or workshop information interchange and training opportunities
- Is Information Literacy being integrated with and linked to Information Science, and to Information and Communications, as a distinct discipline
- Has Information Literacy been integrated into K-12 programs; are school libraries a partner and leader in that effort
- Are national Information Literacy initiatives being linked to UNESCO’s Information-for-All Programme (IFAP) and Education-for-All Programme (EFAP); can a national effort help the

international and regional communities, perhaps in the context of the U.N. Literacy Decade, advance the spread of Information Literacy and Lifelong Learning

Within the Library, Archive, Museum, Publishing, Media, Public Interest, Information Science, Information Content and ICT Communities

- Do the library, information content (e.g. the media, publishers, author groups), and ICT communities see themselves as disparate members of diverse communities with little or nothing in common, or do they see themselves as integral members of the same, broader professional Information Literacy community; if they do, are they proceeding as an effective group by launching effective collaborative initiatives, or if they do not what steps can be taken to bring them together
- Within each of the component “sub-groups” (i.e. librarianship, publishing, the media, information content and ICT), are models and “best practices” being developed and disseminated to their respective constituencies and memberships so that the practicing professionals in each area can keep abreast of the most current and most promising practices
- Have symposia, colloquia and workshops been developed and implemented so that experts from each of the sub-component disciplines can share their ideas and practices with the other disciplines, and seek ways to integrate their ideas and practices more effectively with each other in cross-discipline contexts
- Are professional Information Literacy guidelines and standards being developed to help to rigorously observe and measure progress toward established goals and objectives
- Within each of the component areas are their one or more champions and advocates, who may also be willing to serve as change agents, in bringing about reforms necessary in the professional policies and guidelines that affect Information Literacy

Within the Practicing Professional Communities (e.g. Law, Medicine, Business, etc.)

- Does each major professional community (e.g. law, medicine, business, etc.) have one or more existing champions and advocates, who may also be willing to serve as a change agent, and who are taking the lead in advancing the Information Literacy idea within their respective professional contexts; such a champion can be either an individual, or an institution in either the public or private contexts, or perhaps both
- Are the professional educational schools in each case (e.g. schools of medicine, schools of law, schools of business) assisting their respective membership communities in awareness-raising by actively soliciting their memberships to attend workshops, conferences, lectures, events and other initiatives where Information Literacy is presented and explained
- Are the professional career advancement societies and associations in each case (e.g. medical societies, law societies, business associations) assisting their respective membership communities in awareness-raising by actively soliciting their memberships to attend workshops, conferences, lectures, events and other initiatives where Information Literacy is presented and explained
- Are professional Information Literacy guidelines and standards being developed to help to rigorously observe and measure progress toward established goals and objectives

2. Partnerships and Cooperative Ventures, and Alliances:

Political, social and economic stakeholders that are targeting the same/similar markets and constituencies should partner in reciprocally advantageous modes to advance Information Literacy and Lifelong Learning; e.g., professionals such as teachers, librarians and parents; entities in both the private and public sectors; inter-ministerial collaboration with a government; non-governmental organizations alliances; professional society joint programs; and media and public interest groups partnerships.

Information “Twinning” or “Sistering” Arrangements

One of the most effective and innovative approaches that institutions and organizations have utilized in recent years is sometimes called “twinning” or “sistering.” That is to say, two organizations or institutions, such as libraries, universities, primary or second schools, small enterprises, community centers, professional societies, NGOs, and so on, in different regions within the same country (e.g. an urban northern province and a southern rural province), or in different countries in the same or different geographic regions (e.g. one in Africa, the other in North America; or one in Latin America and the other in Europe) collaborate in a wide variety of arrangements that are mutually beneficial.

Historically, of course, this has been done over the centuries between two cities, towns or villages in different countries. But not until the latter part of the 20th century has the idea seem to have caught on more widely throughout societies and extended beyond a governmental entity.

For example, in our context:

- Two libraries in different countries work out an arrangement whereby one exchanges a skilled reference librarian who is trained in Information Literacy tutorials, with the other, perhaps even paying travel and living expenses for the librarian while they are in the sister country and sister institution performing their tasks;
- Two “sister” library schools, perhaps in different countries, work out an arrangement whereby they exchange faculty and graduate students with each other; typically the host institution defrays the travel and living expenses for the visiting institution’s participants;
- Two “sister” university curriculum reform committees exchange members for the purpose of sharing ideas, experiences, tools and methods that have successfully been employed to incorporate Information Literacy goals and approaches into curricula;

- Two “sister” training firms specializing in adult and continuing education in the Information Literacy area exchange employees, tools, methods and other resources with each other; and
- Two “sister” professional societies in the information, communication, ICT, or related fields exchange members, full-time, part-time, or perhaps in an apprentice status, with each other for the purpose of interchanging experiences, plans and ideas for Information Literacy education and training.

Informal Partnerships and Collaborative Alliances

Once a government or institution has formulated its Information Literacy and Lifelong Learning vision statements, and formulated, at least broadly, their policy and programme directions, one of the very first tasks they should undertake is to do some research. That is, to find out which other neighboring governments in the same sub-region or region, or which other institutions with a similar mission are working toward the same goal and therefore present cooperation opportunities. There are many such potential opportunities within our context, which could be public-private sector partnerships, public-public collaborations, or private-private alliances. For example:

- A government ministry may select one or more higher education institutions and provide them with a grant for the purpose of developing a set of model IL policies and pilot projects;
- A government ministry may partner with a conference planning firm to plan and implement a conference or series of workshops to raise the awareness level of specially targeted audiences to the benefits of IL
- A government ministry may collaborate with a media firm for the purpose of planning and implementing a series of “events” such as a fair, a celebration, a parade, or similar idea, to enhance the public’s consciousness of the Global Information Society

- Higher education institutions typically sub-contract with commercial enterprises to produce a whole range of “deliverables,” many of which are relevant to our context
- Higher education institutions typically work hand-in-glove with scholarly societies and professional associations to put on colloquia and symposia
- Public and University libraries can often partner with Internet and Cyber Cafes to provide a more harmonious, “seamlessly integrated” set of information and communication services, and a more exciting place for young people to go to than would otherwise be the case if both types of facilities were located distantly from each other, and operated separately; sometimes even a coffee shop could be added to this mix

3. Summary and Conclusions: An Action Agenda.

We have nine major recommendations for model strategies, action plans and monitoring mechanisms. But, as has been pointed out elsewhere in this text several times, each country and region must study, customize and adapt these recommendations to its own unique circumstances. Annex D contains a model of ministry policy statements that may also be useful in this context.

Recommendation 1: Prepare a Unified National Strategy and Vision for Information Literacy and Lifelong Learning

To achieve its overall socio-economic development goals the appropriate national authorities should develop a National Information Literacy and Lifelong Learning Strategy and Vision (NS&V) for the country as a whole, and admonish all of their institutions, each sector and citizens to treat the area as a high national priority. Such a strategy and vision should be carefully inter-related to, and coordinated with existing ICT, Educational, Information Society, local development, and other closely related strategies that are already in place, or being planned.

However, having stressed the need to carefully coordinate the IL strategy and vision with the other areas, at the same time it is very

important to note that an IL vision statement is still too often confused with or reduced to ICT/computer/digital literacy. To be sure, they are all inter-related. But there are critical differences between them. *Countries would make a fatal mistake if they simply “lumped” Information Literacy in with their ICT or e-learning programmes as if the two things were simply synonyms.*

The NS&V is a necessity for every country and as such, it must budget for and utilize the political, cultural and economic resources and assets at the national level. It should be developed in cooperation between all of the responsible ministries, selected educational institutions at all levels (primary, secondary and tertiary), and selected national information infrastructure institutions such as libraries (public, academic, special, and national). It must also extend to and embrace non-government organizations and other elements of the civil society, as well as the private sector. It should also employ the assistance of international, regional and within-country experienced and expert policy makers, including distinguished educators, librarians, ICT professionals and citizens and citizen action groups (public interest groups).

Without such a comprehensive, unified NS&V, the resources of a country (financial, physical, human, natural, and material) will likely continue to be underused, their development will be inhibited, and neither an entire country, nor its individual citizens nor its institutions will realize the fruits of the Global Information Society idea.

The attention of the public should be drawn on the importance and relevance of Information Literacy and Lifelong Learning within the Global Information Society context through a variety of consciousness-raising and awareness-raising campaigns, promotions, speeches, events, and so forth.

The NS&V, which should be accorded a priority place within the context of existing or planned National Strategies and Policies relating to the Global Information Society, should, in addition to setting goals and objectives, include the identification of steps necessary to be taken in order to overcome the obstacles and barriers.

The NS&V will provide an overall framework and a starting point or baseline for the ultimate full realization of meaningful IL programmes that could be used for awareness raising and lobbying among those who directly participate in and profit by the implementation of IL policies and practices, i.e. the policy makers, school and university administration, teachers, faculty, staff, employers, information specialists and librarians. Without synergized actions between these groups, an information literate society cannot be realized.

It is important that in view of the fact that the Information Literacy phenomenon is tied closely to different economical, educational and social issues and each country should develop its own unique strategies and solutions and take into account the developments its own distinctive society and culture.

Each country should consider establishing a network with other countries in the same sub-region, and region, that would include setting up a National Central Focal/Contact Point for Information Literacy, and agree on setting up a Regional Centre for the Development of Information Literacy Promotion Plan and Programmes, which will work on fostering the flow of information concerning promising examples of how IL is being practiced in different countries in the region, documenting positive practices and successful programmes both in the regional context and in particular among countries in the region that have similar educational traditions, backgrounds, stages of economic development, etc.

Recommendation 2: Catch up with Information Literacy Developments in the World

All Information Literacy policies and activities have to be based on national development strategies but at the same harmonized with the international trends and standards (e.g., UNESCO, IFLA, ICA and regional bodies as well as the recommendations from already-completed international IL expert meetings, such as the Prague Declaration based on the September 2003 meeting, the Report from Alexandria High-Level Colloquium on Information Literacy held in November 2005, the Ljubljana Slovenia March 2006 meeting,

and the meetings held in Bangkok, Patiala and Kuala Lumpur, and elsewhere (see Annex C).

Countries should be very careful to avoid uncritical adoption, implementation or takeover of success stories from countries with completely different backgrounds, e.g. the USA, Europe, or Oceania, because it might put the development of a country's Information Literacy agenda on the wrong track and end up in only marginal success.

Among the first steps to be taken by a country should be the launching of a series of promotional activities on the understanding of Information Literacy as a development factor relevant to economic growth and social cohesion.

Recommendation 3: Include Information Literacy and Lifelong Learning in other Appropriate e-Policies and e-Programs, such as e-Learning, Distance Education and Workforce Development

Advantage should be taken of the numerous ICT and other "e-initiatives" (e.g. e-Government, e-Commerce, e-Agriculture, e-Learning etc.) already begun, for close collaboration with Information Literacy and Lifelong Learning goals and objectives, in view of IL's cross-cutting function among and between education, research and business, and the influence IL has on achieving international quality in creativity and knowledge production activities.

Thus, advantage should be taken of the government activities aimed at creation of legal, institutional and technological frameworks for the Global Information Society, and for specific implementation actions already underway or planned, such as Distance Learning and e-Health programmes.

Other key interfaces between the Global Information Society and IL include consideration of the legal and telecommunication environments, accessibility of Internet and electronic services, digital literacy of citizens, and rules and regulations concerning the intellectual property content of Internet and its ethical and fair use

Also included are digital literacy activities at schools and vocational training, retraining courses, lifelong learning, and the activities of the inclusion of information and communication technologies (ICT) into everyday information use of citizens, students, research workers and other communities, etc.

There seems already to be a consensus within various professional communities regarding the Global Information Society development, insofar that it critically depends on:

- building of content, not just processes and capabilities, i.e., the information itself and services that can be provided;
- building of and upgrading of human competencies; and
- strengthening of the infrastructure elements to improve access, connectivity and inter-operability between different sub-systems, hardware platforms, and so forth.

Europe is even considering a programme for a European Computer Driving License (ECDL) for civil servants. Other regions may wish to follow the same path.

Europe and North America are also considering a programme of linking libraries to broadband Internet, access to public information sources and services, building of digital libraries, public electronic publishing, etc. Again, other regions and countries may wish to consider pursuing the same course.

There are probably already in the region at least some pilot government programmes aimed at building knowledge-based economy, which propose concrete actions and tasks for the advancement of the Global Information Society, innovation, science and research, entrepreneurial environment, investments in human sources and education, etc. These should be analyzed to determine where the IL” paradigms interface them, and can be inter-related with them.

Most regions are also opening up schools and their computing and Internet facilities to local communities, and the plans for the improvement of their:

- technological infrastructure (multimedia classrooms, Internet connection);
- educational content, advanced updated curricula;
- training of teachers in integration of ICT into education; and
- cooperation with local communities.

Information Literacy and Lifelong Learning should fit integrally and squarely into the Global Information Society objective which puts the emphasis on a citizen who becomes a center of information use through local self-government, joining the implementation of ICT into the state and local government infrastructures, into small and medium enterprises, and into schools and universities as a practical means of how to accomplish this objective.

Recommendation 4: Develop and Put in Place Sustainable IL Institutional and Organizational Frameworks

As emphasized several times, concerted efforts are needed on the part of the central/national government, the ministries for Information Society, education, science, culture, technology and industry, transportation, posts and telecommunications, economy and finance, labor, social affairs and family, national institutes for education, library schools, libraries, professional associations, private information sector, other institutions included in non-formal and informal education, non-governmental organizations, professional media, etc.

But in many cases a strong, sustainable institutional framework for accomplishing these ambitious plans does not even exist. What to do then?

In such instances it is recommended that in the very first high-level expert meetings held in the country, explicit attention should be afforded the challenge of how to construct, and put in place, a sustainable institutional framework that will be the “bricks and mortar” upon which various specific authorities and responsibilities can be assigned. Without such a sustainable framework, simply assigning a project or duty as “another routine duty” to be accomplished, along with everything else, and possibly as an unfunded mandate, is doomed to failure!

Countries must ensure that they have not only the individual champions and advocates to “lead the charge” for IL policies, programmes and other initiatives, but also have the organizational units in place with appropriate staff support, facilities, and other resources to ensure the dependability of missions and visions that are crafted.

Recommendations 5: Craft Pro-active and Imaginative Promotional Initiatives

Government agencies which are responsible for the Global Information Society strategies, missions, visions and operating programmes must take on the responsibility for promoting Information literacy as a very important component to all other activities.

Professional organizations should carry out a series of special symposia, conferences or campaigns which will clarify the fundamental and foundational terms, parameters and stakeholders the country and its institutions have in the Global Information Society and explain why the strategies and changes and reforms necessary for the country to move towards the Global Information Society should be supported.

Conferences on Information Literacy and Lifelong Learning must not be limited to librarians and educators, but represent also be seen as meeting places and forums for teachers, librarians, opinion leaders, the media, private sector business leaders and government policy makers, where common points of interest for all involved sides intersect, would be more clearly identified, and adequate actions defined and taken.

For example, the three major international IL meetings of experts held thus far (in the Czech Republic, Egypt and Slovenia, see the Annexes), all addressed four major sectors: education and learning, health, governance and citizenship, and business and economic development. The findings, conclusions and recommendations contained within the final reports for each of these three major meetings are themselves, valuable and useful points of departure for individual country, sub-regional and regional meetings.

Recommendation 6: Integrate IL Educational Initiatives into Ongoing Reforms

Many countries in a region are already deeply into complex processes of social and economic reforms, including reforms in their education systems. For example, in Europe in higher education countries are all conducting reforms to support the implementation of the objectives of the Bologna Declaration, to confirm to the education and training plans until 2010 (Education, 2006), and to participate in the European initiatives for the effective integration of ICT into education and training systems in Europe. E-Learning, for example, had a target set of 2004 for such integration.

The Information Literacy initiatives must be undertaken in the context of these ongoing education policy formulation and reforms. Advantage should be taken of the ongoing reforms to make space for the integration of Information Literacy into the educational system. As the targets set for the ongoing reforms, specific targets and accomplishment milestones (benchmarks) should be set for integrating Information Literacy and Lifelong Learning into these foundational reforms as well.

In general, the education systems of all countries need to make stronger efforts towards education if the goals of the Global Information Society are to be met. To be sure one way to do this is by intensifying ICT literacy education and by integrating it more effectively with education and training in Information Literacy in primary and secondary education settings, as well as through higher and university education all the way through to doctoral studies and Lifelong Learning.

The possibility to achieve Information Literacy must exist in varied formats: the compulsory education has to offer courses for the intermediate and upper education, but possibilities for improving information competencies must be accessible also to the rest of population, through continuous education in education institutions or through relevant training in private sector companies. This kind of training should be encouraged and supported, and adequately financed.

Another area in this context that needs to be strengthened is cooperation between teachers and librarians. It is still much too low in most countries. Oftentimes teachers are not provided with the tools and means to learn Information Literacy because professional societies for them are either non-existent or poorly attended and supported. In such situations, teachers are forced to learn about Information Literacy on their own, unguided. Moreover, in many countries library schools are either non-existent, or enjoy very poor status, and are often poorly attended, and produce graduates which must be trained over again once they enter a position as a professional or para-professional librarian in the workforce. In such situations what otherwise could be an important resource for continuing education in Information Literacy for practicing librarians either do not exist or are only marginally valuable.

The programmes of adapting the professional structure, contents and qualification to the individual needs and aspirations, to the requirements of the labor market and to the trends in the development of local and regional communities, must be continued.

Critical issues to be addresses by the education systems with regard to Information Literacy as a priority are:

- changing the attitude of teachers towards Information Literacy in view of the influence they have on the spirit of their pupils and students; making students understand that Information Literacy is about understanding their own information needs in the process of studying and a basic tool for creative learning and resource based learning;
- aligning and integrating the Information Literacy into policies of lifelong learning;
- deploying teaching methods in the teaching processes which will take Information literacy as the basis for acquiring and creating knowledge;
- intensifying the teaching of foreign languages as an important instrument for more active participations in the international Information Literacy development trends;
- ensuring that the Information Literacy Strategy and the laws define the content of Information Literacy as complementary to the other

literacies (functional, technological, cultural, media, social, digital, health, financial etc.).

- increasing the investment into the infrastructure, by purchasing information resources, developing professional human resources, supplying more PCs and Internet connections in schools and universities, increasing the number of the public Internet Access Points, etc.

Recommendation 7: Elevate and Strengthen the Role of Libraries, Museums, Archives and Other Public and Private National Information Infrastructure Institutions

Libraries, of all kinds, but especially public and community libraries, have had and will continue to have a key, major role in Information Literacy and Lifelong Learning promotion and application. Therefore, the national library associations, in cooperation with national library and information science (LIS) schools and programs, should reinforce their activities and take the leadership in the promotion of the Information Literacy by:

- establishing a steady body, with sections, committees and working groups, which will assure stronger push position in negotiations with policy makers and initiate the setting up a national focal point for Information Literacy issues. This body, in cooperation with other professional organizations and associations, and the policy makers from the corresponding ministries should lead in the preparation of a National Information Strategy and Vision as described above for Information Literacy. It should also devise Information Literacy guidelines that would serve librarians and teachers in their pedagogical work;
- taking actions for integrating Information Literacy into the curriculum and syllabi of the LIS schools and programs;
- including Information Literacy training in the continuing education programmes and organizing seminars and training courses for librarians to encourage them to accept and fulfill the teaching role;
- engaging in intensive awareness raising through the forms of professional and continuing education of those groups that are directly involved in Information Literacy implementation;

- taking activities for disseminating examples of effective practice, evaluating the impact of Information Literacy enhanced learning for expanding the access to the information infrastructure and services (e.g. courses are aimed at the use of Internet, e-sources, information systems, online databases, library catalogues, etc.)
- emphasizing their role in the preparation of children and young people for productive information behavior and lifelong learning, within which the core objective is to build habits of independent and systematic use of information.

Recommendation 8: Develop and Put in Place Measurement and Assessment Mechanisms for Information Literacy and Lifelong Learning Policies, Programs and Other Initiatives

With the aim of directly and tangibly supporting the transition of the attitudes and behaviours of students and adults to the Information and Knowledge Society, it is very important that countries develop and carry out regularly:

- surveys that would gather insights about the Information Literacy awareness level among librarians, teachers, employees;
- surveys about the level of Information Literacy among students, teachers, workers and what is the impact of the information (il)literacy on the (un)success of their work;
- measurement and assessment of Information Literacy in formal, non-formal and informal education, as well as the everyday information seeking efficiency, alongside the other measurement and assessments of the other literacies, indispensable for living in the Information Society of the present time.

This step will provide statistical and documentary evidence to the courses of action taken, and could shed light on further recommendations for the process of strategy formulation.

Recommendation 9: Consider establishing a new professional and occupational category, the Information Literacy Counselor

We already have a plethora of “information desks” and “please ask me desks” in public places such as shopping malls, airports, train

and bus stations, and so on. And we have reference librarians in libraries, archives and museums. And we have social counselors and ombudspersons working for local levels of government in different agencies. In sum, we have many positions focused on providing specific kinds of coping and helping information. Now is the time to establish a new position: the *Information Literacy Counselor*. Such a position and its job qualifications, should be a professional position, but with para-professional assistance, and somewhat parallel to the idea of a social or psychology counselor. However, the central focus of the job would be to provide information literacy and lifelong learning advice and assistance. Such a position could be set up in any sector – government, academia, the private sector and civil society. And in all kinds of institutions and organizations.

Annex A – Glossary of key definitions, abbreviations and acronyms

1. Key Definitions

- **LITERACY** means well-versed in a particular subject, lettered, erudite, conversant, informed, widely-read, enlightened or well-grounded; literate people are not necessarily scholars, geniuses, or experts, but, rather, they know the facts associated with, and are able to understand and comprehend a particular subject very well, such as history, science, art, and so on, and they often “profit by” their literacy in both tangible (e.g. financial) and intangible (e.g. erudition, edification) ways
- **BASIC LITERACY**, sometimes called **Functional Literacy**, means the classic or conventional literacies of learning how to read, to write, and to perform numeric calculations and operations so that an individual can function at the most basic or elementary level in society – at home, at work, at school, and in community settings; basic literacies in almost all societies are learned in primary formal educational settings, but sometimes where schools are not available, such as in remote and isolated villages, basic literacies are learned at home or in non-formal community centers
- **INFORMATION LITERACY** means the set of skills, attitudes and knowledge necessary to know when information is needed to help solve a problem or make a decision, how to articulate that information need in searchable terms and language, then search efficiently for the information, retrieve it, interpret and understand it, organize it, evaluate its credibility and authenticity, assess its relevance, communicate it to others if necessary, then utilize it to accomplish bottom-line purposes; Information Literacy is closely allied to **learning to learn**, and to **critical thinking**, both of

which may be established, formal educational goals, but too often are not integrated into curricula, syllabi and lesson plan outlines as discrete, teachable and learnable outcomes; sometimes the terms “**Information Competency,**” or “**Information Fluency**” or even other terms, are used in different countries, cultures or languages, in preference to the term Information Literacy

- **COMPUTER LITERACY** means the set of skills, attitudes and knowledge necessary to understand and operate the basic functions of information and communications technologies, including devices and tools such as personal computers (PCs), laptops, cell phones, iPods, BlackBerrys, and so forth; Computer Literacy is usually sub-divided into Hardware Literacy and Software Literacy, the former referring to, for example knowing how to use basic PC and Laptop features and functions such as a mouse, connecting a monitor to a central processing unit, using a printer, and so on, whereas the latter refers to learning how to use various kinds of application software packages such as word processing, spreadsheets, graphics packages and PowerPoint for making presentations, or KidPix or HyperStudio
- **MEDIA LITERACY** means the set of skills, attitudes and knowledge necessary to understand and utilize various kinds of mediums and formats in which information is communicated from a sender to a receiver, such as images, sound, and video, and whether as a transaction between individuals, or as a mass transaction between a single sender and many receivers, or, vice-versa, many senders and a single receiver; for example, knowing when and how to use print newspapers and journals, magazines, radio, broadcast television, cable television, CD-ROM, DVD, mobile telephones, PDF or HTML text formats, JPEG or JIF formats for photos and graphics, and so forth; **interactive modes, such as touch screen**, enable the user to give and receive instructions directly without using a keyboard to enter data or instructions in conventional “typewriter” fashion
- **DISTANCE LEARNING AND E-LEARNING** are terms that refer to education and training modalities that employ telecommunications networks, especially the World Wide Web and the Internet,

as **virtual classrooms** instead of traditional “bricks and mortar” or physical classrooms; in Distance Learning and E-Learning modalities, both teacher and student interact online, such that the student may complete his/her research and homework assignments from the home, the office, or anywhere where they may obtain access to a computer and telephone lines (or wireless should they have a device that can directly access a satellite), and converse using e-mail or posting messages to bulletin boards or participate in chat groups with fellow students

- **E-GOVERNMENT, E-COMMERCE, ETC.** are a family of terms referring to the transacting of business and services by governments and their citizens, or businesses and their customers, and so forth, with their respective constituencies and clienteles, using electronic modalities, such as the Internet; the idea is to simplify the paperwork and red tape involved in conventional, pre-Internet era information systems, using hard copy paper, that were employed by the public and private sectors to transact business between the institution and the customers they serve, such as individual citizens, product and service consumers, stockholders, suppliers, and so on

2. ABBREVIATIONS AND ACRONYMS

AASL	American Association of School Libraries
ACURIL	Association of Caribbean University, Research and Institutional Libraries
AECT	Association for Educational Communication and Technology
AHILA	Association for Health Information and Libraries in Africa
ALA	American Library Association
ANZIL	Australian and New Zealand Institute for Information Literacy
CAI	Computer-Assisted Instruction
CARICOM	Caribbean Community and Common Market
CBO	Community-Based Organization
COMLA	Commonwealth Library Association
EAHIL	European Association for Health Information and Libraries
EBLIDA	European Bureau of Library, Information and Documentation Associations
EC	European Community
ECA	Economic Commission for Africa
ECIA	European Council of Information Associations
ECLAC	Economic Commission for Latin American
EFAP	Education-for-All programme of UNESCO
ENIL	European Network for Information Literacy
EUSIDIC	European Association of Information Services
IACEE	International Association for Continuing Engineering Education
IAIL	International Alliance for Information Literacy
IASA	International Association of Sound and Audiovisual Archives
IASL	International Association of School Libraries
IAU	International Association of Universities
IBRD	International Bank for Reconstruction and Development (World Bank)
ICA	International Council on Archives
ICAE	International Council for Adult Education
ICOM	International Council on Museums

ICSTI	International Council for Scientific and Technical Information
ICSU – CODATA	International Council of Scientific Unions – Committee on Data for Science and Technology
ICT	Information and Communication Technologies
IFAP	Information-for-All programme of UNESCO
IFIP	International Federation for Information Processing
IFLA	International Federation for Library Associations and Institutions
IGO	Intergovernmental Organization
IL-LLL	Information Literacy and Lifelong Learning
INGO	International Non-Governmental Organization
IP	Intellectual Property
IPI	International Press Institute
IRA	International Reading Association
ISSC	International Social Science Council
LDC	Less Developed Country
NCLIS	U.S. National Commission for Libraries and Information Science
NFIL	National Forum on Information Literacy
NGO	Non-Governmental Organization
NORDINFOLIT	Nordic Forum for Information Literacy
OAS	Organization of American States
OECD	Organization for Economic Co-operation and Development
OPAC	Open Public Access Catalogue
PAHO	Pan-American Health Organization
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development

VoIP	Voice-over-Internet Protocol
WHO	World Health Organization
WSIS	World Summit on the Information Society
WWW	World Wide Web

Annex B – The information literacy life cycle explained

(Schematic illustration – entries should be tailored to each unique information problem and set of circumstances)

Information Literacy Life Cycle Stage	Helping Human Resources	Tools, Methods, Approaches, Techniques	Domains & Contexts Where Need/ Problem Arises	Desired Positive (Functional) Outcome(s)	Possible Negative (Dysfunctional) Outcome(s)
A	B	C	D	E	F
1. Realize that a need or problem exists that requires info. for its satisfactory resolution	Colleague Friend/Family Social Worker Teacher Expert Mentor/Coach	Library Internet PC Media Brainstorming Gaming	Home School Office Laboratory Factory Community	Personal Growth Think Outside Box Self- Actualization Empowerment Learn to learn Compete & Profit	Ignorance Vulnerability Helplessness Disadvantage Foolish No Reform
2. Know how to accurately identify & define the info. needed to meet need or solve problem	Teacher Subject Matter. Expert Mentor/Coach Ombudsperson Peer Counseling	Associations/ Societies Library School Media Ctr. Community Ctr. Pub. Int. Groups	Deadline-driven Frustrated by too many "hits" Prelim. results too general to use Info. overload	Higher Academic Achievement Improved Comm Skills Advance up Career Ladder	Wasted Time, Effort and \$\$ Too Broad or Too Narrow Search False/ Misleading Trails
3. Know how to determine if the needed info exists or not, and if it does not, go to Stage 5	Librarian Subject Matter. Expert Other Info. Professional Teacher/Mentor	Online/Print Catalogs Indexes Search Engines Government Sources	Friend/ colleague says "nobody knows" Online search Print tool search	Streamlined, Simplified and Speeded Up Info Seeking Process More Productive Less Costly	Reinvent a Wheel Already Invented Overlap, Duplication Wasteful Non-productive

4. Know how to find needed info. if known to exist, and then go to Stage 6	Librarian Subject Matter Expert Other Info. Professional Teacher/Mentor	Online/Print Catalogs Indexes Search Engines Government Sources	Searching for Product/Service News/Weather/Stock Market Food/Shelter/Medical Care	Streamlined, Simplified and Speeded Up Info Retrieval Process More Productive Less Costly	Spend too Much Search/Research Time.and Not Enough Time Doing and Acting
5. Know how to create, or cause to be created, unavailable info. (i.e. create new knowledge)	Knowledge. Engineer Webmaster Editor/Publisher Mgt. Analyst System Analyst	Do-It-Yourself Contract Out Use Informal Peer Group Ask friends Read Book/article	Authoring Editing Researching Investigating Surveying Composing	Move Long Festering Problems from Back to Front Burner	Stymied Problem-solving and Decision-making Decision-making Under Uncertainty
6. Know how to fully understand found info., or know where to go for help if needed to understand	Colleague Mentor/Coach Supervisor Guidance Counselor Expert	Public Interest Groups Public Assistance Minority .Assistance Community Ctr.	Completed search Read document Analyzed statistics Evaluated facts and opinions	Efficient Problem-Solving and Decision-Making Seized Upon Opportunities	Missed .Opportunities Taking Wrong or Misguided Actions Compound Prob.
7. Know how to organize, analyze, interpret, and evaluate info., including source reliability	Data Analyst Statistician Mgt. Analyst Rating Service Audio-Visual Spec. Auditor	Info Mgt. Guides Do-It-Yourself Aids Take Course Hire Consultant Ask Expert	School Homework Prepare Report Assess Findings Eval. Conclusions Eval. Opinions Eval. Research	Enhance Productivity Improve Efficiency & Effectiveness	Risk Being Uninformed, Misinformed, Disinformed, Unable to Authenticate Info
8. Know how to communicate and present info. to others in approp./ usable formats/ mediums	Journalist Writer Marketing/ Adver. Illustrator Info. Broker Linguist	Communication Manuals Take Course Hire Consultant Public speaking Test w/ colleague	Prepare Report Make Speech Prepare Presento Prepare AV Use e-mail Use Word Process.	Able to Influence Others Win Friends Negotiate/ broker Successfully Show, Not Tell	Considered Ineffective, Theoretical, & too Academic Poor Leadership and Management
9. Know how to utilize info. to solve problem, make decision, or meet need	Leaders Managers Supervisors Experts Consultants Mentors/ Coaches	Experiment Pilot Test Sample Simulate/Model Role-playing Best Practices	To Familiarize To Investigate To Study in depth To Prepare Report To Brief Others To Teach Teachers	For Profit Apply Life/ Learn Enlarge Choices Wise Decisions Critical Thinking Career Advance	Info. Resources "Nice-to-Know" & "Nice-to-Have but Dormant for all Practical. Purposes

10. Know how to preserve, store, reuse, record and archive info. for future use	Preservation Specialist Archivist Records Specialist Curator Historian	Standards Schedules Expert Advice Electronic vs. Manual Virtual vs Physical	Space Utilization Filing Systems Recordkeeping Audits Inspections Mgt. Analysis	Heritage Preserv. Documentation Audit Trail Personal Files Fiduciary and Custodial Resp.	Keep Reinventing The Wheel Risk Format &/or Medium Obsolescence or Destruction
11. Know how to dispose of info. no longer needed, and safeguard info. that should be protected	Archivist Records Specialist Privacy, Security, Intell. Prop. Spec. Ethicist Historian	Wastepaper. Basket Filing System Paper Shredder Delete Key	Information Overload Obsolescence Disuse Records Retire. Scheduling	Information Res. Kept Current Speeds Up Info. Search/ Retrieve. Separates Active/ Inactive	Inadvertently Lose Needed Info Risk Violating Confidentiality, Privacy, Security Ethics Policies

Annex C – Key declarations, proclamations and topics promulgated by and discussed at international and regional information literacy expert meetings

1. THE PRAGUE, CZECH REPUBLIC DECLARATION (September 2003)

“TOWARDS AN INFORMATION LITERATE SOCIETY”

We The participants at the Information Literacy meeting of Experts, organized by the U.S. national Commission on Library and Information Science and the National Forum on Information Literacy, with the support of UNESCO, representing 23 countries from all of the seven major continents, held in Prague, the Czech Republic, September 20-23, 2003, propose the following basic Information Literacy principles:

- The creation of an Information Society is key to social, cultural and economic development of nations and communities, institutions and individuals in the 21st century and beyond.
- Information Literacy encompasses knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the Information Society, and is part of the basic human right of lifelong learning.
- Information Literacy, in conjunction with access to essential information and effective use of information and communication

technologies, plays a leading role in reducing the inequities within and among countries and peoples, and in promoting tolerance and mutual understanding through information use in multicultural and multilingual contexts.

- Governments should develop strong interdisciplinary programs to promote information literacy nationwide as a necessary step in closing the digital divide through the creation of an information literacy citizenry, an effective civil society and a competitive workforce.
- Information Literacy is a concern to all sectors of society and should be tailored by each to its specific needs and context.
- Information Literacy should be an integral part of Education-for-All, which can contribute critically to the achievement of the United Nations Millennium Development Goals, and respect for the Universal Declaration of Human Rights.

In the above context, we propose for the urgent consideration of governments, civil society, and the international community the following policy recommendations:

- The September 2003 Prague Conference Report should be studied and its recommendations, strategic plans, and research initiatives implemented expeditiously, as appropriate (the report will be disseminated in December 2003).
- The progress in, and opportunities for implementation of the above should be assessed by an International Congress on Information Literacy, which could be organized in the first half of 2005.
- The possibility of inclusion of Information Literacy within the United Nations Literacy Decade (2003-2012) should be considered by the international community.

2. THE ALEXANDRIA, EGYPT PROCLAMATION (November 2005)

“BEACONS OF THE INFORMATION SOCIETY”

Celebrating this week's confirmation of the site of the Pharos of Alexandria, one of the ancient wonders of the world, the participants in the High Level Colloquium on Information Literacy and Lifelong Learning held at the Bibliotheca Alexandrina on 6-9 November 2005 proclaim that information literacy and lifelong learning are the beacons of the Information Society, illuminating the courses to development, prosperity and freedom.

Information Literacy lies at the core of lifelong learning. It empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion of all nations.

Lifelong learning enables individuals, communities and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for shared benefit. It assists them and their institutions to meet technological, economic and social challenges, to redress disadvantage and to advance the well being of all.

Information literacy

- comprises the competencies to recognize information needs and to locate, evaluate, apply and create information within cultural and social contexts;
- is crucial to the competitive advantage of individuals, enterprises (especially small and medium enterprises), regions and nations;
- provides the key to effective access, use and creation of content to support economic development, education, health and human services, and all other aspects of contemporary societies, and thereby provides the vital foundation for fulfilling the goals of the

Millennium Declaration and the World Summit on the Information Society; and

- extends beyond current technologies to encompass learning, critical thinking and interpretative skills across professional boundaries and empowers individuals and communities.

Within the context of the developing Information Society, we urge governments and intergovernmental organizations to pursue policies and programs to promote information literacy and lifelong learning. In particular, we ask them to support

- regional and thematic meetings which will facilitate the adoption of information literacy and lifelong learning strategies within specific regions and socioeconomic sectors;
- professional development of personnel in education, library, information, archive, and health and human services in the principles and practices of information literacy and lifelong learning;
- inclusion of information literacy into initial and continuing education for key economic sectors and government policy making and administration, and into the practice of advisors to the business, industry and agriculture sectors;
- programs to increase the employability and entrepreneurial capabilities of women and the disadvantaged, including immigrants, the underemployed and the unemployed; and
- recognition of lifelong learning and information literacy as key elements for the development of generic capabilities which must be required for the accreditation of all education and training programs.

We affirm that vigorous investment in information literacy and lifelong learning strategies creates public value and is essential to the development of the Information Society.

Adopted in Alexandria, Egypt at the Bibliotheca Alexandrina on 9 November 2005.

3. THE LJUBLJANA, SLOVENIA RECOMMENDATIONS (March 2006)

“ACHIEVING AN INFORMATION SOCIETY AND A KNOWLEDGE-BASED ECONOMY THROUGH INFORMATION LITERACY”

- **#1 Prepare a unified national policy and strategies for information literacy.**
Purpose: To achieve socio-economic development goals
- **#2 Include information literacy in all other e-policies and activities.**
Purpose: To achieve maximum benefit of the information society and knowledge-based economy
- **#3 Education at all levels should provide information literacy skills.**
Purpose: To improve the quality and efficiency of education and to develop autonomous lifelong learners
- **#4 Support libraries, librarians, information professionals and their associations.**
Purpose: To provide infrastructure and professional knowledge and leadership for achieving an information literate society
- **#5 Promote information literacy.**
Purpose: To draw to the attention of the public the importance and relevance of information literacy within an information society and knowledge-based economy
- **#6 Cooperate cross-country, regionally and globally.**
Purpose: To benefit from sharing experiences and resources through joint projects

- **#7 Measure and assess information literacy.**
Purpose: To provide evidence to monitor the effectiveness of programmes and activities for enhancing information literacy
- **#8 Apply information literacy in the workplace.**
Purpose: To enhance higher productivity and economic competitiveness
- **#9 Support social inclusion through information literacy.**
Purpose: To achieve a civil society that provides fair and equitable treatment
- **#10 Secure resources for information literacy.**
Purpose: To ensure sustainability for information literacy programmes and activities

4. THE KUALA LUMPUR, MALAYSIA TOPICS (June 2006)

“INFORMATION LITERACY AND KNOWLEDGE SOCIETY: DEVELOPMENT, CHANGES, CHALLENGES”

- Information Literacy in the Information Age: preparing Students for their role in a Global Society
- Information Literacy Initiatives in India with Special Relevance to Emerging Knowledge Economy
- Information Literacy in South-East Asian Schools: Current Status, Directions for the Future and Challenges Ahead
- Empower from Empowering Eight
- Measuring Information Literacy Competency in Higher Education
- The Role of Ontology in Information Literacy
- Beyond Taxonomy: Can Librarians be Managers of Knowledge?
- Learning and Teaching Strategies: Practical Workshop in Preparing Future Company Secretaries in Faculty of Administrative Science and Policy Studies
- A Paradigm Shift from Exploitation to Creative Documentation of Information

- The Needs for Counseling Information, Information Literacy Skills and Information Services to Support Professional Counselors in Their Workplace
- Information Literacy Education in Developing Countries: What are we Missing?
- Lifelong Learning and the Next Generation Student: Teaching for the Online Environment in an Online Environment Using Information Literacy Online: a Course for Grade 5 and 6 Students
- The Design and Development of Information Literacy Module Based on the Big Six Model for Resource Teachers
- Teaching and Learning ICT Literacy in Malaysian Primary Schools
- Difficulties in Implementing Information Literacy Programs at College of Social Sciences and Humanities (Vietnam National University, Hanoi)
- Problems and Challenges in Teaching Information Literacy Skills in a University Context: A Pilot Study
- Information Skills Program: Implementation and Evaluation
- Influencing Schools' Library Instructional Programme in Singapore
- Schools Libraries and Information Literacy
- Development and Implementation of Information Literacy in Malaysian Schools' Systems
- Supporting Information Literacy in Digital Information Environment: An Approach Using a Collaborative Digital Library for School Projects
- Library Skills Enhancing Student's Generic Skills
- A Model of Information Literacy: the Hadhari Approach
- Information Literacy and Lifelong Learning
- Revamping Instructional Programmes for Students at Public Libraries in Singapore
- Libraries' Initiatives in Information Literacy Programs: Towards the Creation of a Knowledge Society in Malaysia
- The Link Between Bridging the Digital Divide and the Human Capital Development

5. THE PATIALA, INDIA RESOLUTIONS (October 2005)

“INFORMATION SKILLS FOR LEARNING: ‘EMPOWERING 8’”

- IFLA and IASL cooperate in the preparation of a glossary of terms related to Information Literacy policy development, and that this information be available on the website of both associations, and also as a print publication on demand
- That IFLA Standing Committee for Asia and Oceania endorse the establishment of an electronic discussion list of representatives to the “Information Skills for Learning Workshop”, based at NILIS Sri Lanka, and that a small start-up grant of \$US 5,000 be requested
- That the “Empowering 8” Model be widely promoted by “Information Skills for Learning Workshop” participants at different platforms in South and South East Asian countries to develop Information Literacy programs and skills
- That Library Associations and School Library Associations be urged to provide continuing professional development and education opportunities in relation to their Information Literacy policy statement, and to report actions to IFLA and IASL
- A committee comprising representatives from Sri Lanka NILIS, NIE, NCOE, NLDSB and the SLDU(MOE), who participated in the “Information Skills for Learning Workshop,” produce a trainers’ manual as a guidelines to introduce the concept, information literacy, as a way of learning and as a source for learning with an eclectic approach to empower people, ensuring lifelong education

(Note: additional, more specific recommendations directed to ministries of education, are included in this workshop’s final report but are omitted here because of space limitations)

6. THE BANGKOK, THAILAND FINDINGS (December 2005)

“INFORMATION LITERACY EDUCATION AND SCHOOL LIBRARY SERVICES”

- There is yet room for improvement where awareness and understanding of Information Literacy is concerned; primary teachers have the greatest awareness of IL; IL is accorded varying degrees of importance, although it was generally agreed that IL was important
- Between 16 and 58% of the respondents indicated that there was as a school policy statement on IL
- Respondents' exposure and training in IL was generally low among administrators regardless of the location of schools (urban vs. rural); those who had received any training learned about IL from training courses, in-service training, seminars, and user education programs
- Here again (implementation of IL), the responses varied showing disparity across the region; where it is taught, IL is integrated into courses and/or taught as an orientation in the library; school libraries and teacher librarians seem to play a small role in teaching IL; in two out of seven countries IL is taught by teachers in library, and in five countries it is a part of extra curricular activities; lack of qualified teachers, librarians, computers, and sufficient library collections were cited as the main factors preventing the teaching of IL
- In two countries (leadership for IL) there is a lack of leadership for IL; it was felt that teaching IL is teachers' regular responsibility; surprisingly, most respondents were involved in preparing school policy
- Assessment and evaluation of IL activities is not given due importance in most cases although it is considered teachers' responsibility; only one country said that IL assessment is a part of students' learning assessment

7. OTHER REGIONAL, SECTOR AND THEMATIC MEETINGS, 2007 & 2008, PLANNED FOR EUROPE, NORTH AMERICA, LATIN AMERICA, NORTH AFRICA/ MIDDLE EAST, SUB-SAHARA AFRICA, AND ASIA/ OCEANIA

Tentative plans were being drawn up, as of this writing, for IL-LLL regional, sector and thematic meetings in the 2007-2008 timeframe as follows. It is suggested that readers consult Annex E, Major Information Literacy Institutional Resources, including UNESCO's C&I Sector, for the latest information on these meetings. For each region, there are one or more regional or international IL-LLL groups, with contact information for each identified. It is emphasized that this information is tentative, and readers should contact the various regional Information Literacy organizations listed in Annex E to verify the accuracy and currency of the information.

- Sub-Sahara Africa: tentative meeting in Addis Ababa, Ethiopia
- North Africa & Middle East: tentative meeting in Alexandria, Egypt
- Latin America: tentative meeting in Valparaiso, Chile
- Europe: tentative meetings in Granada, Spain, and Sofia, Bulgaria
- North America: tentative meeting in Washington, D.C., USA
- Asia/Oceania tentative meeting in Wuhan, China

8. WORLD CONGRESS ON INFORMATION LITERACY AND LIFELONG LEARNING, 2008

As of this writing, no definitive plans have yet been set for holding a World Congress on Information Literacy and Lifelong Learning, although several potential organizers and co-sponsors have stepped forward and are actively considering such a proposal. Readers are urged to consult the groups listed in Annex E, especially UNESCO's C&I Sector, for the latest information.

Annex D – Some models of best practice

This annex includes several key, general-purpose models (or templates) that an entire region, or individual countries, or individual institutions or organizations can use to begin their information literacy programmes. The first model, called “information literacy survey” it is designed as both an awareness-raising initiative, as well as an inventory to collect data on the level of understanding of just what information literacy is, where it is being applied, and with what results. In short, to be used as a baseline or a preliminary framework needed to observe and measure progress in both awareness and implementing educational and training programs

1. Information Literacy Baseline Survey

This Information Literacy Baseline Survey model was planned, designed, developed, tested and implemented by the International Clearinghouse for Information Literacy and Lifelong Learning in Slovenia (CoIL-LL). It was utilized as a first actual or “live” test case using over two dozen eastern, southern and central European countries in the European region. Each country in the region sent a representative to a workshop held in Ljubljana, Slovenia, in March of 2006 to learn about the survey and to brainstorm other steps this region could take to strengthen their Information Literacy plans. Contact information is identified in the survey instrument itself should users wish further information.

Benefits and Outcomes Expected

However, before we look at the survey instrument itself, what are the benefits and outcomes you can expect from using it?

- As a planning tool for government so as to permit ministries to formulate more enlightened and effective laws, rules, regulations, policies, programs, and pilot projects related to reforming,

strengthening, and modernizing education, libraries, workforce development (including the role of vocational and technical training vs. formal education). Also, related topics, including such areas as gender training equality (especially women and minorities and helping the disabled and disadvantaged).

- As a planning tool for educational institutions so as to permit them to strengthen their curriculums and individual course offerings in order to be more responsive to student needs, employers in all kinds of private and public enterprises (should they have adult education and continuing education programs). And more responsive to the needs of faculty and staff, and to the broader societal needs of the public and individual citizens (both adults and children) for library products and services, including those that are computer and telecommunications-dependent.
- Help identify libraries and other kinds of information institutions (e.g. archives) that may be overstaffed or understaffed, by skill and knowledge 'gaps,' and also in terms of misused, poorly trained or underutilized or overworked staff.
- Illuminate new and promising basic and applied research opportunities.
- Identify possible collaborative partnership opportunities between libraries, educational institutions and other elements of society at the national, regional, district and local community levels.

INFORMATION LITERACY BASELINE SURVEY

You can tick the answer by a double-click on the box. A window will appear in which you can choose the “Checked” option and confirm by OK..

Respondent:

- Professor/teacher
- Librarian/other information professional working in an organization
- Government official/civil servant
- Independent professional/free lancer
- Other: _____

Organization/institution:

- University (Faculty): _____

- Library and Information Science Faculty/Department
- Government
- Ministry of Culture
- Ministry of Education
- Ministry of Science
- Ministry of Information
- Ministry of Labour
- Other: _____
- NGO _____
- Library Association
- National Library
- Public Library
- Academic Library
- Special Library
- Other: _____

1. In your country, is the term **“Information Literacy”** already widely used and understood among academia, libraries, government, media, and the general public?

- Yes, and the term for Information literacy in our country’s official language/s is:
- No, it is not used widely, but it is understood as a concept
- No, the concept is neither clearly understood nor used

2. Does your country have a formal policy on Information Literacy? Check one.

- Yes
- No
- Don’t know/not sure

2.1 If “yes,” please give the name of that policy, law, rule, regulation or other legal instrument in which it is promulgated?

(Please attach a copy if you have one or provide data if the document is available in digital form)

2.2 If “no” has it considered adopting one? Check one.

- Yes
- No
- Don’t know/Not sure

2.2.1 If “yes” which of the following timeframes best applies? Check one.

- Within the next 6 months
- Between 6 months and two years
- Sometime in the future (no specified timeframe)
- Other: _____

2.3 At which primary sectors (groups or professions) is the policy primarily directed? Check all that apply.

- Elementary school level
- Secondary school level
- Tertiary (university) level
- Vocational training
- Business enterprises
- Communities/local governments
- Library/information professionals
- Disadvantaged/disabled persons
- Other (specify): _____

3. What is the name of the ministry /government agency responsible for overseeing the Information Literacy policy/law? If there is more than one ministry, please tick them all.

- Ministry of Culture
- Ministry of Education
- Ministry of Science
- Ministry of Information Society
- Other: _____

4. Are Information Literacy education and training courses offered within the universities in your country?

- Yes No Don't know/Not sure

4.1 If “yes,”

a. What is the name of department/faculty/other academic entity that offers the course?

b. What is the name of those courses?

If possible, please attach a current short course description or syllabus; also please include the name and contact information for the most recent instructor.

c. At which level is the course given/taught? Check all that apply

- Baccalaureate/Bachelor's
- Master's program
- Doctoral program
- Post-Doctoral program
- Other: _____

4.2 If “not,” why do you think this is so? Check all that apply

- Lack of understanding of the concept
- Poor information and library infrastructure
- Lack of interest among faculty
- Lack of interest among librarians and information professionals
- Lack of interest among students
- Lack of funding/financial support
- Other: _____

4.3 If Information Literacy courses are not currently being offered at the universities in your country do you know if developing such courses has been considered?

- Yes No Don't know/Not sure

5. Do libraries or library associations in your country offer Information Literacy education and training courses/workshops/seminars? Check all that apply.

- National Library
- Academic libraries
- Special libraries
- School libraries
- Public/local community libraries
- Library associations
- Private education and training organizations
- Don't know/Not sure
- Other: _____

6. What are the major obstacles you see in improving Information Literacy in your country? Check all that apply.

- Lack of interest in, and/or understanding of the concept and its importance and relevance in today's societies and economies among policy makers, professionals and general public

- Assuming Information Literacy is the same as computer and/or media literacy skills and that ICT education and training suffice
- Lack of funding/financial support
- Other: _____

7. In your opinion what kind of initiatives and actions are necessary for improving the state of information literacy in your country?

8. Comments and Suggestions

Thank you very much for completing this survey. If you have any additional comments you would like to make about the state of Information Literacy in your country, please use the space provided below.

2. Model Government (National) Information Literacy & Lifelong Learning Policy Statements

• GOVERNMENT-WIDE (NATIONAL) INFORMATION LITERACY & LIFELONG LEARNING POLICIES

- i. The national government, as well as its individual public and private institutions and organizations, should formally and officially declare and affirm that public information is a strategic national resource and asset that is required by all sectors of the country's society and economy, by all kinds of enterprises (both public and private), and by all citizens regardless of gender, age, race, religion, ethnic group, linguistic group, or other socio-cultural variables; in this respect, a vision statement should be prepared that lays out clearly the general definition and the role of a national information culture, including guidelines and standards for defining what an information literate government and an information literate citizen should be; in so doing, the country will be in a much better position to reach its other national political, economic and socio-cultural goals
- ii. The national government should formally and officially reiterate and adopt the United Nations Declaration of Human Rights principle that access to public information is a human right that should be enjoyed by all citizens
- iii. The President and/or the Prime Minister should designate a lead focal ministry and assign to a senior level official within that ministry overall responsibility and authority to coordinate the government's information culture planning, design and development, and information literacy & lifelong learning education and training strategies, plans, programs, projects and other initiatives; the designated minister should establish an information culture and literacy training coordinating committee composed of representatives from other ministries with a role to play in this area, especially those ministries and sectors identified below
- iv. Individual ministries should formally and officially put in place education and training information literacy & lifelong learning programs that would enable and empower both their own staff personnel, as well as the government's constituencies which those ministries serve (i.e. individual citizens, businesses, or

whatever the clientele) to become not only computer literate and media literate, but information literate as well, and thus be able to fully enjoy and employ their human right of access to public information

- v. Individual ministries should consider the cost of creating, and making available government information to the public as an integral cost of doing business, not an overhead expense, and directly budget public information dissemination as a line item in their budgets
- vi. The development of a national information culture, and the development of information literacy & lifelong learning education and training programs for both ministry staff personnel as well as the various constituencies they serve, must be cast in quite explicit and concrete terms as major public policy programs, and clearly identifiable funds must be earmarked as a budgetary line item for those purposes
- vii. The national government should seek ways to partner with academia, the commercial for-profit sector, and the not-for-profit sectors of the country, so that the respective strengths of each of these three major sectors are mobilized and harnessed in collaborative and complementary modalities, in order to more efficiently achieve the overall national goals of developing an information culture and training citizens in all walks of life to become information literate

- **INFORMATION AND COMMUNICATIONS MINISTRY/
SECTOR INFORMATION LITERACY & LIFELONG
LEARNING POLICIES**

- viii. This ministry should develop public awareness-raising programs, and stage appropriate public events, designed to raise the consciousness level of higher, middle level, and lower level policy-makers and executives, as well as professionals and technical persons, as to the strategic importance of moving toward a national information culture, and the importance of all citizens becoming computer literate, media literate, and information

literate; such programs should have the aim of explaining clearly, and amplifying such explanations in more detailed promulgations, as to just what the concept of an “information culture” for the country means, what “information literacy” is, and how the two concepts are inter-related, and contrast with the closely related concepts of computer literacy and media literacy

- **EDUCATION MINISTRY/SECTOR INFORMATION LITERACY & LIFELONG LEARNING POLICIES**

- ix. This ministry should work with both formal and non-formal (vocational and technical) education and training institutions and organizations for the purpose of integrating computer literacy, media literacy, and information literacy into the curriculums of those entities in general
- x. The ministry should work with the three lead information literacy departments and faculties of higher education institutions – computer science, library science and management – in formal educational institutions such as selected important universities, to integrate an information literacy component into the curriculums of each department, its curriculums, and its faculty training and development programs
- xi. The ministry should work with non-formal education and training enterprises (those involved in vocational and technical education) for the purpose of suggesting ways those enterprises can also integrate an information literacy component into their programs

- **INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) MINISTRY/SECTOR INFORMATION LITERACY & LIFELONG LEARNING POLICIES**

- xii. This ministry should develop plans, policies and programs designed to explain and illustrate (through pilot projects) how ICT technologies should and can work closely together with schools, libraries, and individual library and information professionals that are responsible for information content; for example,

how public libraries at the local community level can work more effectively with telecenters and community resource centers, as well as cyber cafés, so that the strengths of each are harnessed in a collaborative and complementary mode for the benefit of local citizens

- **CULTURE, ETHNIC, LANGUAGE, RACE, RELIGION
MINISTRY/SECTOR INFORMATION LITERACY &
LIFELONG LEARNING POLICIES**

- xiii. This ministry should promulgate a vision statement and a set of policies that links together the ideas of cultural literacy and information literacy, so that they two concepts are viewed as partners that can and should play a key role in helping the country achieve its political, economic and social goals

- **LOCAL DEVELOPMENT MINISTRY/SECTOR
INFORMATION LITERACY & LIFELONG LEARNING
POLICIES**

- xiv. This ministry should promulgate a vision statement and a set of policies that inter-relates the elements of race, religion, gender, ethnic group, and related broad demographic characteristics, in the context of a comprehensive articulation of how they are all inter-dependent and counter-dependent elements of a national information culture, and address programs and projects designed to bring about such an information culture; information literacy and cultural literacy are closely related concepts, and they are counter-dependent

- **SCIENCE AND TECHNOLOGY MINISTRY/SECTOR
INFORMATION LITERACY POLICIES**

- xv. This ministry should promulgate a vision statement and a set of policies that links science and technology to information literacy in the context of scientific and research, as well as economic, and socio-cultural national goals and programs; in short, the statement and the attendant programs should clearly point out how science and technology can contribute directly to achieving

an information literate citizenry, as well as the reverse, on how an information literate citizenry can contribute directly to achieving advancements in science and technology

- **OTHER MINISTRIES**

By examining the above illustrative policy statement suggestions, other ministries should articulate counterpart vision statements and policy statements appropriate to their respective missions, authorities and responsibilities

3. Model of Public Consciousness-Raising Workshop / Conference

INFORMATION LITERACY AND LIFELONG LEARNING 21ST CENTURY STRATEGIC PARTNERSHIP

Note: This is an illustrative model of a 5 day workshop or conference and should be customized to the unique circumstances of each country

1. WORKSHOP THEME AND PURPOSE:

This workshop will invite a core group of internationally, regionally and nationally renowned information literacy experts, cultural anthropologists, educators, workforce development specialists and distance learning experts for the purpose of sharing with a broad target audience the concepts of information literacy and cultural literacy, and lifelong learning, and how those concepts reinforce each other in a symbiotic relationship when planned and implemented together.

Definitions of each concept, practical applications, best practices and tutorials will be utilized by the moderators and facilitators to explain the concepts so as to help participants understand how they can utilize the concepts to achieve their respective purposes and aims, whether at the overall country (national) level, institutional level, organizational level, intra-departmental unit level, or personal level.

2. TARGET AUDIENCES:

Among the audiences to whom this workshop is specially targetted are:

- Educators and trainers, from both formal and informal institutions, in both the public and private sectors;
- Human resources managers and personnel managers from both government and for-profit companies, as well as not-for-profit organizations;

- Government ministry and other government officials responsible for developing and implementing public policies and programs relating to information literacy and cultural literacy;
- Commercial enterprises with education and training product lines;
- Executive Directors, Secretaries-General, and other executives from professional societies and trade associations in the computer, library, information, software, hardware, systems, networking, and related disciplines;
- Corporate Librarians, Chief Information officers, Chief Knowledge Officers, and other related senior information executives; and
- Not-for-profit and foundation organizations that offer grant and loan programs aimed at assisting educational institutions upgrade their curriculums in the areas of computer science, information science, librarianship, education technologies (e.g. distance learning and e-learning).

3. SPONSORSHIP

The following key organizations are illustrative of those which could be approached to solicit their support and sponsorship for the meeting, including financial support:

- UNESCO
- UNDP
- WIPO
- IBRD and regional development banks
- IFLA, regional and national library societies
- IFIPS, regional and national ICT associations
- Regional Governments
- National and Regional higher education institutions
- Commercial for-profit enterprises
- Not-for-Profit organizations and foundations

4. PARALLEL TRACKS

The following are illustrations of possible tracks at the workshop, which would be held in parallel. There will be an opening all-morning plenary session for all participants, to set the stage and introduce the

content and format for the workshop. And there will be a closing, all-afternoon plenary session for all participants to report back from the track groups individually, including a summary of the entire workshop. But the afternoon of the first day, all day the second, third and fourth day, and the morning of the fifth day, will be structured as special interest tracks designed to attract a particular sector audience. The afternoon of the fifth day will be devoted to summarizing the results of the meeting, including receiving reports from the various track moderators on the principal findings, conclusions and recommendations made by each track group.

- Health and Human Services
- Education and Learning
- Economic and Business
- Governance and Citizenship
- Media and Public Interest Groups
- Not-for-Profits and Civil Society Elements

5. WHAT PARTICIPANTS WILL LEARN

Participants can expect to learn what the basic paradigms of Information Literacy and Lifelong Learning mean, how they are defined, what promising research and models of practice are being pursued (and by whom and where and with what results), and provided with ample opportunities to ask questions and interact with the expert trainers.

Annex E – Major information literacy institutional resources (Websites, Databases, Directories, Clearinghouses, Information Centers)

This annex lists some of the major institutional resources for learning about the Information Literacy concept, who the major stakeholders and champions are, where research and practice are proceeding rapidly, and for using to keep abreast of current developments in both the theory and practice.

1. The international clearinghouse on information literacy and lifelong learning (coil-ll)

The International Clearinghouse on Information Literacy and Lifelong Learning, CoIL-LL, now in its first phase of development, provides links to major institutional information resources dealing with Information Literacy. In later stages, the Clearinghouse will also include links for Lifelong Learning.

The Clearinghouse is primarily intended for use by both practicing professionals, and as a ready-reference for users, especially students, but extending to policy-makers in government and business as well (e.g. teachers, trainers, librarians, faculty, program administrators, policy makers, etc.). It is especially targeted to countries that lag behind in Information Literacy initiatives and practices.

The Clearinghouse is an important Internet resource for users from all sectors and segments of the population who are in need of upgrading their information literacy knowledge and skills. In short, all users are welcome and encouraged to use the CoIL-LL website.

The materials and resources on the CoIL-LL website are available freely to anyone and everyone, subject only to respect for copyright, patent, trademark and other intellectual property rights conventions, laws, rules, regulations, policies and ethical considerations.
<http://www.coil-ll.si/>

2. The international information literacy resources directory

The International Information Literacy Resources Directory is a joint undertaking between UNESCO and IFLA. Its central feature is a comprehensive database of records of the following kinds of information resources:

- **Resources with Direct and Immediate Value for End-Users**
 - i. IL Advocacy Toolkits
 - ii. Assessment/Evaluation Tools
 - iii. Know-How Materials
 - iv. Library Tours
 - v. Texts of IL Competencies/Skills
 - vi. Tutorials for Citizens
 - vii. Tutorials on How to Use Information Resources
 - viii. Workshop/Hands-on Experience
 - ix. Credit Courses

- **International Publications for Scholarly, Research and Academic Use**
 - i. Guidelines for IL
 - ii. IL Monographs with International Scope/Coverage/Impact
 - iii. Specific Guidelines for Key Programs
 - iv. Theses of International Relevance
 - v. Translations of Key International Documents
 - vi. Serials and Journals
 - vii. Other Publications of International Relevance

- **Organizations, Institutions, Institutes and Centers**
 - i. Associations, Societies and Professional Bodies
 - ii. IL Training Organizations

- iii. International Organizations with IL-related Work
- iv. Research Projects/Research Centers

- **Training the Trainers Resources**

- i. IL Training Courses for Trainers
- ii. Distance Education Certificate/Degree Programs
- iii. IL Institutes/Immersion Programs
- iv. Web-based Courses for Training Trainers
- v. Workshop/Hands-on Experience

- **Communications**

- i. Conferences on the Subject
- ii. International Actions, Meetings, Plans
- iii. Listservs, Discussion Lists, Chat Groups
- iv. Weblogs
- v. Websites Devoted to Information Literacy

http://www.uv.mx/usbi_ver/unesco/

3. The international alliance for information literacy

Upon a recommendation from the Prague Conference of Information Literacy Experts held September 20-23, 2003, the following organizations are committing to creating an International Alliance for Information Literacy. The evolving purpose for the Alliance is to facilitate the sharing of information and expertise on information literacy across regions and nations of the world. The ultimate goal of the Alliance is to facilitate people's participating effectively in the Information Society, as part of the basic human right of life long learning.

The Alliance will consist of organizations that serve as nodes around the world. Member organizations will generally be regional or national organizations that are broadly based, including representation from the economic development, education, health, human services, librarianship, public policy, and information and communications technology sectors.

- **Founding Members (including country or region of origin)**

Australian and New Zealand Institute for Information Literacy (Oceania)

<http://www.anzil.org>

European Network on Information Literacy (EnIL) (Europe)

<http://www.ceris.to.cnr.it/Basili/EnIL/index.html>

National Forum on Information Literacy (United States)

<http://www.infolit.org>

NORDINFOlit (Scandinavia)

<http://www.nordinfolit.org>

- **Current Members (the foregoing Founding Members, plus the following members which have since joined the Alliance)**

Information Science Today (Bangladesh)

<http://www.infosciencetoday.org>

Networking Alliance for Voluntary Actions (India)

<http://www.navaindia.org>

Russian Reading Association, Pskov Department

<http://www.infolit.org/members/rrapd.html>

SCONUL Advisory Committee on Information Literacy (United Kingdom)

http://www.sconul.ac.uk/activities/inf_lit/

FORMIST (France)

A service of the French national library and information science school (Enssib), FORMIST is a French-speaking network of information literacy resources. The first objective of FORMIST is to collect and organize educational tools and provide them to instructors and students on a French language web site. FORMIST also has an important role as coordinator of an information literacy instructors network and organizes an annual conference in June, Rencontres FORMIST.

<http://formist/enssib.fr>

Information Literacy Website (United Kingdom)

«The site will support practitioners by providing news, case studies, examples of best practice and freely available toolkits. Our aim is to provide a practical resource that information professionals regularly visit to discover the latest developments in information literacy» (from home page).

<http://www.informationliteracy/org.uk/>

Manitoba Information Literacy Group (Canada)

This site, part of the Manitoba Library Association, includes information and links addressing school libraries, evaluating information, information literacy models, and Canadian case studies.

<http://www.mla.mbca/infolit/links.cfm>

NetLinks: Collaborative Professional Development for Networked Learner Support (United Kingdom)

The home page of a United Kingdom technology and information literacy project funded between 1995 and 1998, NetLinks provides information about the initiative, as well as related reports, extensive annotated bibliographies (with Web links), related UK projects and electronic discussions.

<http://www.ukoln.ac.uk/services/ecib/projects/netlinks/>

UK Academics and Information Literacy Research Project (United Kingdom)

A web site documenting a 2002-05 project investigating «UK academics' conceptions of, and pedagogy for, information literacy.»

<http://www/idis.shef.ac.uk/literacy/project/about.html>

UNESCO Information-for-All Programme (UNESCO)

«The Information for All Programme is an intergovernmental programme, created in 2000. Through IFAP, Governments of the world have pledged to harness the new opportunities of the information age to create equitable societies through better access to information» (from «About IFAP» page).

http://portal.unesco.org/ci/en/ev.php-URL_ID=21103&URL_DO=DO_TOPIC&URL_SECTION=-465.html

UNESCO Information Literacy

An introduction to UNESCO's focus and activities in information literacy.

http://portal.unesco.org/ci/en/ev.php-URL_ID=15886&URL_DO=DO_TOPIC&URL_SECTION=201.html

4. Regional and national information literacy forums

Readers should consult the above-mentioned UNESCO/IFLA International Information Literacy Resources Directory, and CoIL-LL for a listing and indexes.

5. Centres of information literacy teaching and research

Readers should consult the above-mentioned UNESCO/IFLA International Information Literacy Resources Directory, and CoIL-LL for a listing and indexes.