

**INFORMATION LITERACY MEETING OF EXPERTS  
Prague, the Czech Republic  
September 20-23, 2003**

*Report of a meeting  
sponsored by the US National Commission on Libraries and Information  
Science (NCLIS) and the National Forum on Information Literacy (NFIL)  
with the support of the United Nations Education, Scientific, and Cultural  
Organization (UNESCO)*

**Written by Spenser Thompson, MLIS  
Edited by Jill Cody, MPA**

**Submitted by Cody Associates pursuant to Purchase Order No.  
ED-03-PO-2459 issued by the  
United States Commission on Libraries and Information Science**

**December 2003**

# Table of Contents

<b>THE PRAGUE DECLARATION</b>	1
<b>A. EXECUTIVE SUMMARY</b>	3
<b>B. PROCEEDINGS OF MEETING</b>	7
<b>1. Introduction</b>	7
Meeting Format and Logistics	7
<b>2. Welcome Remarks</b>	7
Organizers and Invited Guest Speakers	8
<b>3. Panel Discussion: National Case Studies</b>	8
Final recommendations	11
<b>4. Panel Discussion: Starting with People, Cultures and Health</b>	11
Strategic recommendations	13
Action and Research Agendas	13
<b>5. Panel Discussion: Education and Learning</b>	13
What information seeking behaviors can be taught and affirmed?	17
What about learning influences information literacy education?	17
What conditions are most conducive to learners and teachers as they develop information literacy?	17
What happens when we add “digital” to information literacy?	17
Policy recommendations	17
Action Agenda	17
Research Agenda	17
<b>6. Panel Discussion: Economic Development</b>	17
The relationship between economic development and information literacy	17
Information literacy skills development strategies	17
Evidence of relationship between information literacy and economic development	17
The Barriers	17
Policy recommendations: National and international	17
Action Agenda	17
Research Agenda	17
<b>7. Panel Discussion: Policy and Information Literacy</b>	20
Barriers to policy changes	20
Effecting change	20
Preliminary conclusion: Policy principles	20
Final recommendations: Policy principles	20
Final recommendations: Policy actions	20
Action and Research Agendas	20
<b>C. ACKNOWLEDGEMENTS</b>	23
Authors, Participants, Sponsors, Organizers, Hosts, Special Contributors	23
<b>D. APPENDICES</b>	24
1. Summary List of Research Recommendations (all panels)	26
2. Remarks by Shigeru Aoyagi, UNESCO	28
3. Remarks by Joan Challinor, NCLIS	31
4. List of Meeting Participants and Paper Authors	35
5. Programme-at-a-glance	37
6. Webography of Selected NCLIS Website Information Resources	39

## THE PRAGUE DECLARATION

### *"TOWARDS AN INFORMATION LITERATE SOCIETY"*

We the participants at the Information Literacy Meeting of Experts, organized by the US 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 life long 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 literate 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 Meeting 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.

**Footnote:** *This document was drafted by the participants during the Prague meeting.*

**Prefatory Note:** This report is subdivided into four major sections. The first section is an *Executive Summary* which highlights the major findings and recommendations made by the meeting participants. This section is followed by a longer *Proceedings of Meeting* section which contains the details of the discussions of the various sessions, both plenary and working group (panels). The third section is an *Acknowledgements* section. An *Appendix* section then follows, including several key speeches made by distinguished invitees, a list of meeting participants and paper authors, the program agenda for the meeting, and a Webography containing selected NCLIS website citations that are directly relevant to the meeting's planning, implementation, and follow-up.

## A EXECUTIVE SUMMARY

The meeting of experts succeeded in its goals of defining the information literacy concept, identifying its role in transforming communities worldwide, and creating plans of action. All agreed that the work of information literacy “champions” is just beginning a new and exciting phase, in which the concept will become more widely accepted as a cornerstone of education and the Information Society. Working groups (sometimes referred to in this report as “panels” and sometimes as “groups”) on fundamental, major information literacy issue clusters defined information literacy as “the ability to identify, locate, evaluate, organize and effectively use information to address issues or problems at hand that face individuals, communities, and nations.”

In his opening remarks, UNESCO’s Shigeru Aoyagi noted parallels between UNESCO’s goals of information access, literacy, and education for all. Building upon papers commissioned for the meeting, five subject-focused groups then presented their positions on key issues and identified research and policy strategies for bringing the benefits of information literacy to the world:<sup>1</sup>

### 1. National Case Studies

Four continents were represented in this group. The experts addressed the status of information access and information literacy in their respective nations. Fundamental inequities in literacy rates, education access, and Internet connectivity were acknowledged as a worldwide problem. However, such nations, often called “developing,” are making progress in terms of penetration of information technology and education. Some nations, like Canada, are beginning to see acknowledgement of not only digital, but information literacy among their citizens. It is also true that the digital divide persists in more wealthy nations such as the United States. Other countries like South Africa, Egypt, and Chile are beginning to see community information centers that provide Internet access, but are not equipped with a

---

<sup>1</sup> Individual papers can be accessed at: <http://www.nclis.gov/libinter/infolitconf&meet/papers/papers.html>

mechanism to teach information literacy to the people. The desire for information utilization, and all it entails – economic, cultural, and political participation – is a common denominator. Information literacy has to be embedded into developing countries' existing agendas for improving technology and education. A social activism model, which speaks the language of government and carries emotional impact, is the best way for government to recognize the value of information literacy.

## **2. Starting with People, Cultures, and Health**

Experts in this group chose to frame information literacy not as an individual skill, but as a powerful community tool that facilitates access to information and has real impact on its health, wealth, and well-being. In this context, they presented information literacy as a human rights issue. Information literacy efforts will work best if they are applied at the existing community unit level where needs are best identified – rather than imposed by higher level government agendas that can be out-of-touch. Lobbying government can be most effective when information literacy “champions” communicate the specific stories of the benefits of information literacy. Furthermore, non-governmental organizations (the "Civil Society" as this sector is now collectively coming to be called) participation and government knowledge of these efforts are key. Health information is a unique axis for information literacy, as illnesses are often a powerful motivation for families to become information literate. In addition, medical education and related professional competencies hinge on “evidence-based learning” and the ability to access health literature that rapidly changes and proliferates. The group recommended building partnerships beyond the library profession, continuing and bettering quantitative research on information literacy, finding new sources of funding, and linking existing efforts and infrastructure to leverage information literacy.

## **3. Education and Learning**

These experts explored the intersection between information learning on the one hand, and education and learning on the other hand. UNESCO's Shigeru Aoyagi stated that information literacy is “formed” by the activities of motivated learners. The experts agreed that information literacy works as an iterative, contextual learning opportunity, as well as a model for education itself that teaches peoples how to be independent, critical and active learners. This process of "learning in context" works effectively when learners are “acculturated” into professional and educational activities that require information literate practices. Lifelong learning and basic literacy training are good entry points into information literacy, as they have commonalities with information literacy and do not require computer hardware. Information literacy skills are particularly crucial in the Web environment, where authority of information can be difficult to determine, and where many sources that are neither comprehensive nor indexed. Educators must know the context and information needs of communities in order for instruction to be effective. Recommendations included promoting learner-

centered education, and placing information literacy at the cornerstone of the human right to education. Means to this end include creating national standards (in various stages of completion worldwide) and finding partners in government and education to join the cause. Although the group pointed to the solid research already done on the subject, further research should include studying information literacy outcomes at school, work, and in communities.

#### **4. Economic Development**

The experts agreed that information literacy is a fundamental skill in the workplace that produces positive outcomes for small and large businesses alike. Information literacy is the mechanism by which knowledge is managed and exploited by businesses. Especially in the small business context, information literate organizations have the opportunity to access information that will help them meet key objectives, especially with the proliferation of the Internet. Since research shows that many people worldwide are not prepared for the 21st century workplace, information literacy is a fundamental competency in a world where change and exponentially expanding digital information is the norm. Countries that are just beginning to compete on the global stage must have information literate citizens. From the standpoint of citizens, information literacy can be the means to break down barriers to full participation in government and the national economy. The experts recommended that information literacy be injected into business culture and job training by the articulation of its benefits. Research that focuses on outcomes, perhaps with economists, is needed to accomplish these aims.

#### **5. Policy and Information Literacy**

The panel acknowledged that policy formation must be sensitive to national differences but has significant goals in common. Results in policy can be achieved by working through the community and legal levels. Information literacy change agents can address policy by emphasizing the following benefits and values:

- Information is a strategic resource that cannot be fully exploited without an information literate citizenry.
- Every person has a fundamental right to information literacy and the information access that underlies it.
- Public information that is actively disseminated is conducive to an information literate nation.
- Information literacy is the key competency for the Information Age.
- Information literacy is as valuable as more widely accepted concepts such as computer literacy and media literacy.

Barriers to policy changes have been the tendency toward short-term, compartmentalized projects. Action steps, therefore, should include: tailoring policy to

local environments; taking a holistic approach to policy that involves players from all sectors; marrying information literacy to basic literacy and information technology efforts that are already widely accepted, such as the United Nation's Literacy Decade.

#### **6. The Prague Declaration:**

The meeting culminated with the spontaneous creation of "*The Prague Declaration: Towards An Information Literate Society*" (which is the very first lead-in document to this report), in which the information literacy experts proposed six basic, overarching information literacy principles and presented three major policy recommendations to government, and to civil and nonprofit organizations. In it, information literacy is envisioned as a key to full participation in the 21st century for communities and nations, and as an excellent counterpart to the United Nations Millennium Development goals.



## **B. PROCEEDINGS OF MEETING**

### **1. INTRODUCTION**

Forty participants from 23 different countries, representing all of the major geographic regions of the world, met in Prague, the Czech Republic, from September 20-23, 2003, to chart a worldwide plan of action for creating an information literate society.

With the support of The United Nations Education, Scientific, and Cultural Organization (UNESCO), and organized by the US National Commission on Libraries and Information Science (NCLIS) and the National Forum on Information Literacy (NFIL), participants wrestled with the fundamental challenge of how to empower populations around the globe to benefit from digital and non-digital information and communication resources and technologies.

The participants agreed that the meeting was a great success in its goals of defining the information literacy concept, identifying its role in helping to transform communities worldwide, and creating plans of action. All agreed that the work of information literacy "champions" is just beginning a new and exciting phase, in which the concept will become more widely accepted as a cornerstone of education and the Information Society.

Additional background details relating to the meeting may be found in Appendix 6.

#### **1.1. Format and activities**

Prior to and throughout the meeting participants engaged in a frank exchange of papers, ideas, and strategies. This was a working meeting in which experts were organized into moderated discussion (or "focus") groups to tackle five major themes. At the conclusion of each session, the presenting group offered draft findings and recommendations, which were then more thoughtfully refined by all participants on the last day of the meeting. For convenience, the finalized recommendations are listed below as the last section of each panel discussion section to which they were relevant. It was nearly impossible to capture the full richness of the discussions each panel held and for that we apologize. Finally, the experts created "The Prague Declaration: Toward an Information Literate Society"<sup>2</sup> which sums up the key fundamental issues and recommendations from the meeting as a whole, and appears as the lead-in document to this report.

### **2. WELCOME REMARKS**

---

<sup>2</sup> Available at: <http://www.nclis.gov/libinter/infolitconf&meet/post-infolitconf&meet/PragueDeclaration.pdf>

The meeting began with opening remarks by representatives of the three sponsoring organization partners: Patricia Senn Breivik on behalf of the National Forum on Information Literacy, Shigeru Aoyagi on behalf of UNESCO, and Joan Challinor on behalf of the US National Commission on Libraries and Information Science. Czech Deputy Minister for Informatics Dana Berova was scheduled to provide the host country welcoming remarks but, unfortunately, because of a last minute health problem, was unable to attend. Official Czech greetings were later conveyed to the participants by Mrs. Viktorie Spidlova, wife of the Czech Prime Minister.

Dr. Breivik spoke of the importance of information literacy to the successful functioning of individuals and communities worldwide, and presented "E-literacy," a video<sup>3</sup> produced by the Pacific Bell/UCLA partnership for information literacy. Reflecting on the commissioned papers, Dr. Breivik suggested that the definition put forward by the ALA Presidential Committee on Information Literacy in 1989 appears to be generally accepted. That definition states: "An information literate person is one who has the abilities to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."

Mr. Aoyagi outlined UNESCO's long-term commitment to education and information literacy related worldwide initiatives: "UNESCO carries out various programs related to information literacy in different sectors." Our priority," he stated, "has long been the goal of achieving education for all." He emphasized one of UNESCO's goals as, "promoting the empowerment and participation of emerging knowledge societies through equitable access, capacity building, and sharing of knowledge." Mr. Aoyagi cautioned the meeting participants to remember the "information have-nots," those to whom basic literacy and access to computers is still a dream (full set of remarks in Appendix 2).

Dr. Joan Challinor emphasized the importance of the first international meeting of experts on the subject and the power of those present to bring the concept to the forefront of education and governments around the world (full set of remarks in Appendix 3).

Following these opening remarks, the first round of the meeting's discussion groups was convened. Each group had a moderator and over the course of the meeting, recommendations developed out of the focused discussions, refined, and then accepted by all participants (see below).

### **3. PANEL DISCUSSION: NATIONAL CASE STUDIES**

---

<sup>3</sup> The video can be viewed at: <http://media2.gseis.ucla.edu/e-literate.mov>

Patricia Senn Breivik, United States of America (Moderator)  
Soledad Ferreiro, Chile  
Feiching Ma, China\*  
Catherine Quinlan, Canada\*  
Shawky Salem, Egypt  
Peter Underwood, Republic of South Africa  
Martha Whitehead, Canada  
Abdul Zia, Afghanistan\*

*\* Indicates the expert contributed a paper but was not able to be present at the meeting.*

While several participants from this group were from what are sometimes known as “developing nations,” Soledad Ferreiro reminded the audience that not all “developing countries” can be painted with the same brush or seen as equal to each other. In such contexts where the Internet has not penetrated as far as other countries, information literacy is still crucial and can mean accessing print, oral, community, or indigenous knowledge.

Ms. Ferreiro continued by saying that Chile now has a government official known as the Chief Information Officer as well as significant penetration of cell phones – which outnumber hard-wired phones in her nation. It is encouraging that information literacy is spreading under different names in Chile, including an initiative which identifies communities in need and then brings digital resources to them as a second step. The representatives for Slovenia, Latvia, and Nepal discussed how community information centers were just getting off the ground in their nations and that information literacy must be a part of this movement.

Caroline Stern stated that information literacy matters, and can be taught, without technology. In places such as rural South America for example, students can learn and practice how to find and manage information in intelligent ways, even if they do not have access to digital technologies. Information literacy, said Dr. Stern, is simply a strategy for knowledge building, communication, and problem solving that empowers people.

Experts in other “developing” areas of the world gave insights into the emergent emphasis on the power of information as a key national and regional priority. Aija Janbicka said that there are already formalized Information Society policies in Europe. Latvia’s *E-Latvia* program, along with the European Union, has made developing the Information Society a key priority, which creates an opportunity for information literacy advocacy. Kay Raseroka mentioned The New Partnership for Africa's Development (NEPAD) objectives of eradication of poverty; investing in health, education, and security, and bridging the digital divide. Information literacy, she said, can be a tool to achieving most of these goals.

Martha Whitehead of Canada discussed her country's significant investment in national initiatives dealing with digital information access and was heartened by the government's recent emphasis on skills and learning for the knowledge economy in addition to technical infrastructure.

Shawky Salem discussed the situation in Egypt. An impressive "new" (actually a modern reincarnation of the ancient library of Alexandria) library has recently opened in Alexandria, while at the same time basic literacy and education is a fundamental concern. Mr. Salem said that there needs to be the creation of "smart villages" in Egypt, that are connected to information but most importantly have people (i.e., information intermediaries) with information literacy skills which can facilitate people getting to the information they need. Those who are connected to the Internet in Egypt are far too often still using it for "chat sessions" rather than for true utilization of the educational and economic benefits that the Web can bring to information literate communities. At this stage, privatization is helping matters in Egypt, but education reform is needed to create a society that can truly utilize Internet connectivity.

Peter Underwood discussed information literacy in terms of the enormous social changes that have taken place in South Africa since its first democratic election in 1994. People in his country are "panting for information" and information literacy can be the catalyst for using such information for the creation and maintenance of a democratic society there. Currently, however, the government's concept of "information management" does not adequately address people's information literacy needs.

The panel then discussed plans to introduce information literacy standards to groups beyond the library community. Ms. Ferreiro pointed out that her country's library community is working toward creating information literacy standards and is in the process of bringing the concepts to their library and government higher-ups. She also noted that something akin to the US Freedom of Information Act (FOIA) would be a good thing for information literacy efforts worldwide.

The panel recognized the contribution of China's Feicheng Ma, who, in his paper, described the government's embrace of information literacy as the final progression of efforts to create basic literacy in China, which began in the 1950s. It was noted that China appears to be the first nation to require information literacy skills for all students at the higher education level by implementing a plan in 1984 through literature retrieval courses. Similarly, Finland's Mirja Ryynanen discussed the enlightened attitude of her government to information literacy. As a former member of Finland's parliament, she offered the following advice: Learn the language that politicians speak and let your communications convey the emotional impact of the subject matter. At this point Robert Wedgeworth added that anecdotal stories of specific individuals whose lives are touched by information literacy can be quite persuasive.

The panel agreed that a social activism model of spreading information literacy to the governmental, community, and educational spheres would be effective to bring it into the popular consciousness. They also agreed that Michel Menou's concept of "public information as a public good" was a good way of communicating the benefits of information literacy.

It was also agreed that information technology is driving the economy, and that information literacy needed to be imbedded into these developments. For example, Chile's País Digital and Canada's Innovation Strategy need a vital information literacy component to be fully effective.

### **3.1. Final Recommendations: National Case Studies Group**

These experts focused on the need for active information literacy advocates around the globe. Such information literacy champions must:

- Focus on the relationship between information literacy and business, and look for partnerships in this arena.
- Use stories with emotional impact in order to be persuasive.
- Cultivate other champions beyond the library profession.

The group also stressed that information literacy education must occur during the school years for people to take full advantage of its benefits as adults.

## **4. PANEL DISCUSSION: STARTING WITH PEOPLE, CULTURES AND HEALTH**

Jose-Marie Griffiths, United States of America (Moderator)

Amelia Caldwell, United States of America

Ana Maria Correia, Portugal

Sharon Grant, Canada

Barbie Keiser, United States of America

Gloria Ponjuan, Cuba\*

Melinda Quintos de Jesus, The Phillipines

Nirmala Shrestha, Nepal

Robert Wedgeworth, United States of America

The group stated their preference for a definition of information literacy in the context of people in need, and in terms of "information literate communities" rather than individuals. Robert Wedgeworth illustrated the community-level understanding of information literacy by pointing out that youth literacy cannot be achieved 50% of the time without parental involvement and help. Nirmala Shrestha described the excitement in her country around the creation of village information centers, a part of

Nepal's recent decentralization policies that have given its 75 districts more autonomy.

Melinda Quintos de Jesus added that the starting point should be to find out what the basic unit of a community is in each country, and then address its information literacy needs. She also commented that, "information literacy is a human rights issue."

The group also discussed the unique relationship between health information and information literacy, because a health problem is often a pressing human need that drives people to become more information literate. This is necessary in order to cope effectively with the explosion of health information of the last decade. Sharon Grant added that "evidence-based medicine," combined with a more informed and proactive patient community, is also driving an increased need for information literacy among health care clinicians.

Expounding on the group's theme, Robert Wedgeworth emphasized the disconnect between what the government thinks people need versus what people think they need, which is to say: economic development, health care access, how their children can be successful in school, and how to live in peace. For adult education or government intervention to be successful, the audience's needs must be known before either information technology or information literacy training can be introduced. Mr. Wedgeworth continued that nongovernmental organization (NGO) support is crucial in developing nations where government support may be lacking, but that notifying governments of such efforts is also important in order to publicize and reinforce their presence. He reminded the group that all social problems have an information literacy component, and that it can be seen as a "triage" area for social servants helping populations with multiple problems.

Finally, the group discussed action steps and priorities, including ways of communicating with policy makers. Mr. Wedgeworth emphasized that policy makers need to hear from information literacy champions that there are concrete information literacy scenarios and stories which have emotional impact and which are populated with the benefactors or victims of information literacy abundance or deprivation, respectively.

Amelia Caldwell added that the arts and entertainment community are another audience for such stories, and that quantitative research into the outcomes and processes of information literacy acquisition are needed to bolster the arguments of information literacy champions. Mr. Wedgeworth commented that we have a set of information literacy outcome "indicators" that are already in the literature that can be used in the interim.

The moderator's summarizing remarks included the following themes:

- Information literacy is not a complicated idea but it is variously applied in different fields.
- Information literacy is a beginning, not an end in itself but a means to empowerment and knowledge.
- Engage in conversation about information literacy that has meaning to the lives of audiences.
- Inclusion and collaboration are crucial to spread the message.
- Create supportive environments for learners, or the skills will not be retained.
- Measure the outcomes and impacts of the process.
- Empower people and be proactive.
- To create a climate and culture of knowing is the goal of implementing information literacy.

#### **4.1. Strategic recommendations**

Each country should:

- Establish a national information literacy plan.
- Establish a national focal point for information literacy.
- Increase awareness of the essential role of information literacy in information and communication societies, especially among priority populations defined demographically by rural/urban, male/female, etc.
- Engage new stakeholders in information literacy advocacy and action: mass media, social activists, the private sector, elected officials, and public health.
- Encourage and fund community planning for information literacy using existing structures where possible.
- Create participatory process for the ongoing development of information literacy standards.
- Review community information literacy plans to identify barriers and infrastructure needs.
- Invest in needed infrastructure.
- Adjust national plan, existing policies and legislation as necessary to facilitate inclusion of the community in information literacy plans.

#### **4.2. Research actions**

- Establish interdisciplinary research council.
- Identify existing relevant research.
- Create database of research studies, results, and best practices.
- Develop and fund interdisciplinary research agenda. Include both qualitative and quantitative research.

### **5. PANEL DISCUSSION: EDUCATION AND LEARNING**

Barbara Cambridge, United States of America, Moderator  
Christine Bruce, Australia  
Philip Candy, Australia/United Kingdom  
Sally Johnstone, United States of America  
Penny Moore, New Zealand\*  
Hannelore Rader, United States of America  
Elsa Ramirez, Mexico\*  
Caroline Stern, United States of America

The group addressed five fundamental questions about information literacy from which to develop a list of recommendations.

### **5.1. What information seeking behaviors can be taught and affirmed?**

UNESCO's Shigeru Aoyagi offered that information literacy skills are "formed" through active rather than passive learning, based on the learner's motivation to improve his or her quality of life. Information literacy cannot be taught by "the osmosis technique" but must be "indoctrinated into good information seeking behavior."

Hannelore Rader described the necessity that information intermediaries are necessary to assist people in developing information literacy skills. Students need to be interested in seeking information, become "relentless" in the search for information, and become critical about information sources. Even high performing students are often behind in information literacy skills and need help.

Christine Bruce interjected that research is needed to complement literature on the individual learner, to focus on learning communities and groups. Phil Candy suggested that books like *the Social Life of Information* and the notion of indoctrination into communities of professional practice are most relevant to information literacy: "The success of universities or other educational institutions is the way in which they subtly and often tacitly induct students into the information literacy practices of that profession such as law and medicine... Information literacy is one of the markers of a successful educational intervention." Bob Wedgeworth agreed that "acculturation" is a good way to conceive of information literacy education. The idea of a professional culture can be broadened to include society as a whole. Barbie Keiser, speaking on the behalf of Gloria Ponjuan and herself, described a need for an "information culture" that is the basis for an information literate society. The elements of such a culture include infrastructure, social conditions, and leadership.

All agreed that information literacy is crucial to effective learning in the 21st century.

### **5.2. What we know about learning that influences information literacy education.**



The panel agreed that the following trends in education are conducive to information literacy theory development and teaching:

- Active learning is a desirable process and outcome of education. Information literate people overcome “road blocks” that prevent them from finding information that will have an impact on their lives.
- Using the real information needs of students is crucial – things they care about knowing. To increase retention and skill building, people tend to seek information and become more information literate. Motivation is fundamental to information literacy competencies.
- Information literacy can be a part of many blueprints for learning and teaching.
- Learning can be effective when communities and individuals teach each other.
- Lifelong learning and information literacy have related bodies of literature that need to interpenetrate. Lifelong learning, long supported by UNESCO, is a good entry point into information literacy.

Christine Bruce identified the need for mapping various learning models in their relation to information literacy. Phil Candy also suggested that it would be helpful to consider the inverse question: What do we know about information literacy that influences how we should teach?

### **5.3. What concrete tangible conditions are most conducive to learners and teachers as they develop information literacy? Who has the power to set the conditions?**

Caroline Stern offered a four-part response. Information literacy champions, she said, need to find a small corner to serve in which they know the population; must know their strengths and weaknesses; must take an instructional design approach in which information literacy is anchored to the known and directly demonstrate and define the skill set that needs to be taught.

Caroline Stern defined an “instructional design” approach as one which focuses on teaching information literacy skills – replacing traditional recitation-based instruction that uses lecture or rote memorization to drill students on arbitrary facts. What matters is the quest for knowledge that matters to the lives of students. Information literacy is the key to conducting student-centered, active learning focused on skill building."

Frank Thompson offered that the conditions are often native to a cultural group. For example, Aborigines learn virtually everything in context, so for them the school is a foreign condition for learning. John Rose of UNESCO added that the condition for learning information literacy is one in which students are “learning how to learn” – a concept that can be considered a definition of information literacy in itself. His UNESCO colleague, Shigeru Aoyagi said that information literacy “demands rethinking educational style” in general.

#### **5.4. What happens when we add the word “digital” to information literacy? How does everyone from those in an oral culture to advanced technology approach digital information literacy?**

Sally Johnstone discussed how evaluation of sources becomes critically important in the Web environment. Shawky Salem added that the Web environments are mostly in English, which creates an access barrier to non-English speaking peoples. The similarities of oral and digital cultures were noted. For example, fields in the web and narrative structures provide frameworks for individual accounts and interpretations.

#### **5.5. Policy recommendations**

A multilevel approach was recommended, involving international, governmental, and educational players. Policy recommendations and actions speak to the systemic approach that is needed for widespread information literacy.

- Support information literacy as an indispensable part of the human right to education, enabling each person to be a knowledgeable and participatory community member, skilled worker and critically autonomous person.
- Ensure development and delivery of learner-centered information literacy programs.
- Provide support for individuals and organizations to enable information literacy development in formal, non-formal, and informal learning throughout learners' lives.
- Require information literacy to be a fundamental and documented learning outcome in primary, secondary, and tertiary education.
- Require and provide professional development of educators and facilitators for information literacy.

#### **5.6. Action Agenda**

- Draw together existing research; identify patterns, themes, and professional practice indicators.
- Identify and document best practices and outcomes for a variety of environments, applications, and audiences.
- Identify potential audiences and communicate (through toolkits, resources, networks, and mentors/ambassadors) through various media.
- Deliver applications to various academics, individuals, organizations, and communities.
- Refer back to performance indicators [quantitative and qualitative] for individuals and groups.
- Repeat, revise, and advance the agenda.

#### **5.7. Research Agenda**

Investigate the character of information literacy in different kinds of environments and cultures:

- Study the information literacy experiences of people and organizations in public and proprietary information environments.
- Study the different information literacy experiences of people and organizations in rural and urban communities.
- Study the experience of information literacy in oral-learning communities to enable development of digital information skills.
- Study the experience of information literacy in digital environments.
- Study the experience of information literacy in different professions and community contexts.

## **6. PANEL DISCUSSION: ECONOMIC DEVELOPMENT**

Dorothy Williams, United Kingdom (Moderator)

Wilson Aiyepetu, Nigeria\*

Bonnie Cheuk, Singapore/United Kingdom

Lana Jackman, United States of America

Camile McMahon, Australia\*

Zdravka Pejova, Slovenia

Victor Rosenberg, United States of America

Frank Thompson, Australia

This panel considered four key themes, considering the value of information literacy in the workplace and for economic development in communities worldwide.

### **6.1. The relationship between economic development and information literacy**

Bonnie Cheuk discussed the link between information literacy and the notion of knowledge management in business. Information literacy is the means by which employees and companies can actually benefit from technology and an organization's knowledge base.

Victor Rosenberg pointed out the motivation for business is "the bottom line," and that information literacy must (and can) demonstrate that it is a good return on investment for companies. For small businesses especially, information literate workers can help their companies compete with larger corporations and on a global scale, by taking advantage of the information explosion of the last decade. For example, the ability to find the right materials at the right cost and setting prices are crucial business objectives, which require information literacy skills.

Lana Jackman stressed that information literacy does provide return on investment when combined with workforce development strategies. At present, many workers, white and blue collar alike, are not prepared for the knowledge management challenges of the 21st century workplace, given the exponential growth of information resources/ICTs and their direct impact on corporate profitability. In essence, information literacy training must become an essential Small and Medium Sized Enterprise (SMSE) strategy, disseminated throughout the entire organizational hierarchy if productivity and profitability are to be sustained within this highly volatile competitive world economy.

Zdravka Pedrova said that the introduction of information literacy programs for the employees of both the public administration sector and the corporate sector is of essential importance for Slovenia's and other newly joining countries in the European Union. Information literate societies are more capable of competing and joining with other nations in the joint endeavors of economic and social development.

## **6.2. Information literacy skills development strategies**

Frank Thompson said that communities should be the basic unit of discussion, and their struggle for economic and political participation. Information literacy skill building can help improve the cultural interface between indigenous people and their colonizers, or those who are oppressed or marginalized. This strategy allows people the benefit of not accepting what the people in power tell marginalized people. Information literacy is most valuable as a problem-solving tool.

Lana Jackman offered that work development cannot be complete without information literacy training.

## **6.3. Evidence of relationship between information literacy and economic development**

More hard evidence is needed, but the collection of success stories is also necessary. Frank Thompson described how marginalized people have discovered the value of their goods and services, as well as channels to sell them, through good information literacy practices. Lana Jackman argued that evidence of improved educational results through information literacy can also be a case for increased workplace performance. Victor Rosenberg cited much anecdotal evidence that information literacy helps the efforts of small businesses.

## **6.4. The barriers**

The group offered several barriers to information literacy facilitating economic development. Business executives (and NGOs) do not know about the concept of

information literacy as much as they should. Organizational culture needs to change to accept information literacy, just as it has for knowledge management. Parallel to this is the limited visibility of information literacy outside libraries.

To rectify this a curriculum for workplace information literacy needs to be developed, and quantitative evidence for the effectiveness of information literacy skills must be communicated. To facilitate this, an international marketing plan through existing channels is necessary.

### **6.5. Policy recommendations: national and international**

- Recognize the strategic importance of information literacy to a competitive and sustainable economy.
- Establish clear agendas on workplace competency to maximize the benefit from information/knowledge as a key resource and asset.
- Provide incentives/encouragement to: (a) governments to invest in appropriate information literacy programs to enhance the effectiveness of the workforce, (b) employers invest in appropriate information literacy programs in the workplace/community, and (c) unions to engage in similar practices.
- Encourage the inclusion of information literacy training as part of overseas development aid programs.
- Encourage the inclusion of information literacy training as part of national economic development programs.

### **6.6. Action Agenda**

- Develop global strategic marketing plan and program that takes into account the interest of business and consumers, and engage communities of practice.
- Collaborate with economists and development practitioners to assess impact of information literacy on economic development.
- Incorporate information literacy in all job-training programs in public and private sectors.

### **6.7. Research Agenda**

The groups research recommendations focus largely on demonstrating the impact of information literacy on the “bottom line” for businesses. Research areas of interest should be:

- The impact of information literacy on economic development including cost benefit/value analysis of information literacy programs in the workplace.
- The relationship between information literacy and effective knowledge management.

- The positive impact of information literacy in profit and nonprofit organizations.
- Relationship between information literacy and entrepreneurship.
- The nature of appropriate and effective teaching and learning strategies for workplace information literacy.

In addition, the group called for an investigation of the state of the art of information literacy practice within NGOs/Civil Society Organizations (CSOs) and development aid.

## **7. PANEL DISCUSSION: POLICY AND INFORMATION LITERACY**

Toni Carbo, United States of America (Moderator)

Woody Horton, United States of America

Aija Janbicka, Latvia

Michel Menou, France

Philippe Queau, France\*

Mirja Ryyanen, Finland

The moderator, Toni Carbo, framed the discussion within the following principles:

- Policies will vary according to international differences.
- Change will happen at community and local, state, and federal (central/national government level) law.
- Information literacy is a flexible term.

### **7.1. Barriers to policy changes**

Michel Menou outlined the following barriers to information literacy policy creation. One is the nature of past projects, which have been largely short-term and compartmentalized. The other is that “the search for final causes of information literacy benefits are fruitless” due to the complex environmental factors surrounding it. Zdravka Pejova offered that Slovenia has developed good information literacy programs for elementary schools, but lack of funding and available resources is a significant barrier.

### **7.2. Effecting change**

Mr. Menou’s solution was to take a holistic approach to policy.

Woody Horton of NCLIS expounded upon themes that would be helpful to information literacy “change agents:”

- Information has becoming a strategic resource to all nations. Information literacy is

therefore fundamental to the Information Society.

- Public domain information must be maximized for the public good.

- Every person has “the right to be an information literate citizen.”

- Informed citizens are a cornerstone of democracies.

Informed citizens are able to identify economic opportunities.

- Organizations and institutions must more proactively disseminate public information and not wait for their constituents to come to them.

- Identify champions to raise the information literacy flag.

- Be proud of the mission to popularize information literacy and be proud of it as a concept. It should be as accepted as a term like “Information Society” or “Civil Society.”

Anna Maria Correia, agreeing with Mr. Horton, said that an Information Society is built on information literate people who are able to participate as “active and responsible” citizens.

John Rose applauded the idea of a marketing plan but cautioned it must have a viable mechanism that involved multiple players. Information literacy as a component of basic literacy would be a good starting point because internationally digital access and literacy for the majority of people are accepted goals.

### **7.3. Preliminary conclusion: Policy principles**

- Information literacy policies and actions MUST take a holistic approach with an understanding that it may take generations to implement (achieve results). They must recognize that: Different policies may be needed for governments (all levels) and various types of organizations; responsibilities flow from bottom up to top down and across; and no single solution or model exists.

- Promote citizens’ right to access to information, which includes proprietary issues, government information/security, creating an information commons.

- Promote value of information literacy at international, national and local levels.

- Build partnerships for information literacy to include all types of organizations and all sectors of government.

### **7.4. Final recommendations: Policy principles**

- Make clear to all policy makers what information literacy is and its value.

- Promote citizens’ right to access to information.

- Address the topic of proprietary information (do not flee from it because it is difficult).

- Develop strategy to transfer what we have learned about information literacy to influence what is taught and how.

- Develop learning communities.

- Devote a specific percentage of each information technology-related research and infrastructure expenditure to invest in empowering people through information literacy

to use that technology.

### **7.5. Action Agenda**

- Follow up meeting with an electronic communication.
- Develop a strategic marketing plan, linked to UN Decade of Literacy<sup>4</sup> and other international initiatives. Determine appropriate audiences.
- Build on existing work to create international information literacy forum to assess and promote policies, practices and research – for example, Sheffield University’s School of Information Studies information literacy web log project.<sup>5</sup>
- Facilitate information exchange: Build a research and development program; identify successful learning communities and share information.
- Hold competition for international information literacy community centers building on concept of excellence and the learning village.

### **7.6. Research Agenda**

- Identify what research already exists: Collect research related to impact of information literacy (e.g., indicators of positive outcomes as interim step); create an international study and web log.
- Compare results of programs with and without information literacy policies.
- Measure impact of policies.
- Develop international multidisciplinary cross-sectoral comparative approach to research agenda and undertake research. Develop coordinated, systematic, international comparative longitudinal research projects.

---

<sup>4</sup> Available at: [www.unesco.org/education/litdecade/](http://www.unesco.org/education/litdecade/)

<sup>5</sup> Available at: <http://dis.shef.ac.uk/literacy/project/weblog.html>



### C. ACKNOWLEDGEMENTS

No event of the magnitude of the Prague meeting can be accomplished without the assistance and support of many people and groups. First and foremost the three meeting sponsors and organizers express their deep gratitude to the authors of the commissioned papers, most of whom were able to attend the Prague meeting, but some were unable to attend. Whether participating at the meeting or not, all of the author-participants deserve sincere thanks for their outstanding contributions to the information literacy literature. These papers, collectively, constitute a major landmark in raising the level of public consciousness, internationally, to the importance of information literacy in the Internet Age and the Information Society.

In addition, special thanks are due to many people from the Czech Republic, the host country for the meeting, who were such kind and generous hosts. Much appreciation is due to Charles University, which served as the principle Czech host institution, and particularly to Dr. Richard Papik, Director of the Institute for Information Studies and Librarianship at Charles University. And to Vera Langrova who assisted the organizers and facilitators in so many ways by providing outstanding meeting room facilities, as well as conference supporting equipment, and comfortable sleeping accommodations for the participants at the efficient Krystal Hotel, conveniently located between the city center and the Prague airport.

As is so often the case with meetings of this kind, a few individuals must be singled out for their tireless dedication to the myriad logistical tasks which must be arranged. In that group are, notably, Michaela Dombrovska and Hana Landova, doctoral students at the aforementioned Czech academic institution. They labored ceaselessly to help with the many arrangements for the meeting, and ensuring its smooth functioning, including arrangements for utilizing student-translators for the meeting.

A number of distinguished Czech officials, by virtue of their presence at the meeting, and by their expressions of encouragement, honored the sponsors and organizers, as well as the participants, and offered a warm welcome and best wishes for success:

- Viktorie Spidlova, wife of the Czech Prime Minister, and a librarian herself, officially welcomed participants at the meeting banquet.
- Dr. Vojtech Balik, the Director of the Czech National Library, who participated in the banquet program.
- Mrs. Ludmila Ticha, Head of the Central Library, Czech Technical University in Prague who participated in the banquet program and keynoted a follow-on information literacy program at Charles University also on the subject of information literacy.
- Jan Krc of the U.S. Embassy in Prague who assisted in U.S.-Czech liaison and translation tasks.

Special thanks are due the five cluster group moderators for their work in organizing and facilitating their respective panels. Successfully harnessing and mobilizing the talents of their participants in the extremely short timeframe within which they had to work was a tribute to their superb professional skills. The moderators were:

- National Case Studies: Patricia Senn Breivik
- People, Cultures, and Health: Jose Marie-Griffiths
- Education and Learning: Barbara Cambridge
- Economic Development: Dorothy Williams
- Policy and Information Literacy: Toni Carbo

Finally, last but certainly not least, deep appreciation must go to Jill Cody of Cody Associates who so ably and professionally facilitated the meeting's main plenary sessions, and to Spenser Thompson, a recent MLIS degree awardee, who not only was in charge of audio-visual coordination at the meeting, but took the lead in preparing this report, edited by Ms. Cody and formatted by NCLIS.

## **D. APPENDICES**

## **SUMMARY LIST OF RESEARCH RECOMMENDATIONS**

### **National Case Studies**

- Investigate the relationship between information literacy and business.
- Find out who has the power to act on information literacy initiatives in your country.
- Identify like-minded individuals in business and government.
- Research existing information technology initiatives that would benefit from the addition of information literacy practices and policies.
- Start or refine information standards that are particularly relevant to a given nation's needs.
- Research which communities could most benefit from the introduction of information literacy education.
- Research trends in education are harmonious with information literacy (such as education reform and lifelong learning).

### **Starting with People, Cultures and Health**

- Establish interdisciplinary research council.
- Identify existing relevant research.
- Create database of research studies, results, and best practices.
- Develop and fund interdisciplinary research agenda.
- Conduct both qualitative and quantitative research.

### **Education and Learning**

Investigate the character of information literacy in different kinds of environments and cultures:

- Study the information literacy experiences of people and organizations in public and proprietary information environments.
- Study the different information literacy experience of people and organizations in rural and urban communities.
- Study the experience of information literacy in oral-learning communities to enable development of digital information skills.
- Study the experience of information literacy in digital environments.
- Study the experience of information literacy in different professions and community contexts.

### **Economic Development**

The group's research recommendations focus largely on demonstrating the impact of information literacy on the "bottom line" for businesses. Research areas of interest should be:

- The impact of information literacy on economic development including cost benefit/value analysis of information literacy programs in the workplace.
- The relationship between information literacy and effective knowledge management.
- The positive impact of information literacy in profit and nonprofit organizations.
- Relationship between information literacy and entrepreneurship.
- The nature of appropriate and effective teaching and learning strategies for workplace information literacy.

In addition, the group called for an investigation of the applicability of information literacy practice within NGOs/Civil Society Organizations (CSOs) and development aid.

### **Policy and Information Literacy**

- Identify existing research: Collect research related to impact of information literacy (e.g., indicators of positive outcomes as interim step); create an international study and web log.
- Compare results of programs with and without information literacy policies.
- Measure impact of policies.
- Develop international multidisciplinary cross-sectoral comparative approach to research agenda and undertake research.
- Develop coordinated, systematic, international comparative longitudinal research projects.

**TOWARDS THE INFORMATION LITERATE SOCIETY AND LITERACY FOR ALL**

Remarks by

*Shigeru AOYAGI, Chief*

*Literacy and Non-formal Education Section, Basic Education Division, UNESCO*

The representatives of the Czech Republic, Dr. Joan Challinor, Dr.. Patricia Senn Breivik, distinguished participants, honorable guests.

It gives me a pleasure to say a few words on the opening of the Information Literacy Meeting of experts on behalf of UNESCO. First of all, I would like to express our sincere gratitude to the organizers, the US National Commission on Libraries and Information Science and the National Forum on Information Literacy for their effort to realize this important meeting.

In its medium-term strategy from 2002 to 2007, UNESCO set two crosscutting themes to contribute to its unifying mandate of peace and human development in an era of globalization. They are, first, eradication of poverty, especially extreme poverty, and second, the contribution of information and communication technologies to the development of education, science and culture and construction of a knowledge society. In order to pursue these cross-cutting themes, the three-fold strategic thrust articulated in the plan involves: (1) developing and promoting universal principles and norms, based on shared values, in order to meet emerging challenges in UNESCO's fields of competence and to protect and strengthen the "common public good," (2) promoting pluralism, through recognition and safeguarding of diversity together with the observance of human rights, and (3) promoting empowerment and participation in the emerging knowledge society through equitable access, capacity building and sharing of knowledge. In line with this mid-term strategy, which implies the significant role of knowledge-based society in bringing equity, democracy and peace to the world, UNESCO carries out various programmes related to the information literacy in different sectors.

In the Education Sector, its priority has long been given to achieving Education for All. Above all, literacy is considered as a fundamental tool for every form of learning, formal, non-formal and informal, and a prerequisite for social, cultural and economic participation. What is, then, literacy? The definition of literacy employed internationally in the process of the Education for All (EFA) 2000 Assessment was that "Literacy is the ability to read and write with understanding a simple statement related to one's daily life. It involves a continuum of reading and writing skills, and often includes also basic arithmetic skills (numeracy). A number of countries have adapted this definition to figure out the number of literates and illiterates and the literacy rate. However, the definition is not broad enough to capture the complexity and diversity of literacy.

Literacy means different thing to different people. People living in mountainous areas in the North Thailand, for instance, acquire, learn and use literacy in totally different ways from the people in the capital city, Bangkok. Just as literacy is complex, so is the information literacy, since both of them are evolving in accordance with the ever-changing world. The UNESCO Education Sector is now preparing its position paper on literacy, which intends to illustrate the plural notion of literacy and to suggest concrete actions for literacy policy makers and providers to interpret such a plural notion into their policy and programmes addressing learning needs of the people who are still excluded.

The United Nations Literacy Decade (UNLD) (which was officially launched by Mr. Kofi Annan, SG, UN and Mr. Koichiro Matsuura, Director-General of UNESCO in New York on 13 February of this year) should be fully utilized for improving the literacy situation and creating literate the society. The world is still facing the scandalous fact that one of the five adults simply cannot read and write. There is a huge gap between information literates and information illiterates, but the gap is much wider between information literates and illiterates who do not have basic literacy skills. UNESCO, as the leading agency in implementing the Decade will strive for reducing such gaps and creating literate environments in collaboration with all the stakeholders including UN partners, bi-lateral and multi-lateral development agencies, governments, NGOs, Civil Society, communities, and the public at large.

UNESCO has, since it's founding, had a mandate to promote international cooperation and development in communication and information. In particular, within its intergovernmental Information for All Programme (IFAP), it is working to promote:

- International reflection and debate on the ethical, legal and societal challenges of the Information Society;
- Wide and affordable access to information through digitization, preservation and dissemination;
- Training and education in the fields of communication, information and informatics;
- the production and dissemination of local content by local communities;
- The use of international standards and best practices in communication, information and informatics; and
- The development of information and ICT applications in UNESCO's fields of competence.

UNESCO is planning to reinforce its support for information and ICT in the service of education in the next biennium (2004-2005). In particular, a specific programme on "Harnessing ICTs for education" is foreseen to be carried out in close cooperation with the UNESCO Education programme. Within this sub-programme, a specific main line of action will deal with "Empowering people through information, media and ICT literacy".

The notion of information literacy is complex and has been evolving in accordance with the social transformations such as political and socio-economic changes in the countries, trends of globalization, and advancement of ICT. It is clear, however, that for all societies information literacy is becoming increasingly important component of not only literacy policies and strategies, but also of broader policies and strategies to promote human development.

Our challenge over the coming days is to reflect on this complicated issue and come up with a working concept of information literacy that is applicable to different cultures and different levels of development – along with some recommendations for appropriate local, national and international action. I wish you well in this very important work, which UNESCO is following with great interest.



**WOMEN IN THE DEVELOPING WORLD AND INFORMATION LITERACY**

*Remarks by*

*Joan R. Challinor, Ph.D.*

*Chairperson, US National Commission on Libraries and Information Science*

Good afternoon. I am Joan Challinor, Chairperson of the US National Commission on Libraries and Information Science. I welcome this opportunity to speak to you about a subject close to my heart and one that I think may have been slighted by this meeting: "Women in the Developing World and Information Literacy."

Jackman and Jones in their fine paper written for this meeting state the situation boldly "the economic and social gains from globalization have not been equitably distributed..." Who, then, has been left out? Many in the developing world: the poor (predominately women); the unschooled (predominately women); and the illiterate (predominately women) have been overlooked. I want to talk with you today about these women. Without a discussion of how information literacy should impact, elevate and enhance the lives of women, we are selling our concept short.

Let me give you an example: Woody Horton in his fine paper identifies an "informed citizenry" as a critical factor for a "stable democracy." Yet women are 50% of all voters in all countries. And let us ask, how many women are "informed" in the sense Horton means? Soledad Ferreiro suggests that "government policy-makers must highlight the importance of information literacy as a basic human right." I ask: if women are to enjoy this basic human right, who is looking out for their ability to read even the simplest written document? Yes, I know there are many attempts to improve women's literacy in the developing world, but I ask, how does our meeting add to these efforts?

Wilson Aiyepoku is helpful on this point. He writes of our meeting's bias toward "digital literacy" and "Internet Age skills." I agree with him, even to the extent of suggesting that "aural information literacy" might be, at a future time, a subject of such a meeting as ours. Radio is well recognized in many parts of the developing world as the cheapest, most effective way to reach those millions of women whose digital competence lies far in the future. I think we have to agree that, for the moment, information literacy does imply a digitally competent workforce, a business thrust and a highly educated workforce. Where these sociological conditions exist then we have a chance to get "information literacy" in gear.

Yet there is another view. I ally myself with Elsa Ramirez who writes so well about the "continuing aggravation of the problem of the divide between the 'information haves' and the 'information have-nots.'" She has identified "cultural modernization" as crucial to the subject we are discussing, and she is right. All these concepts: digital

literacy, information literacy, and basic literacy swim like fish in a cultural ocean. We must look to these oceans, examine them, and know their ebbs and flows if we are to make all our literacy efforts effective.

Social conditions matter. Let me talk about the cultural ocean of the developing world and the subject of women and information. We must begin to think that in the developing world women's present place in the information revolution is so problematic, so egregious, and so deplorable that we must, at last, make a meaningful effort to put it right. I know, as you know, that there has been in the past few years, an extraordinary effort to understand and become sensitive to women and their needs in the developing world. It is now past time to accept an "information literacy super-highway" on which men in the developed world, and some in the developing world, are traveling in fast cars while the vast majority of women in the developing world are walking barefoot on dirt roads.

The expression "information is power" is now accepted. And we agree, at last, that women have an essential role in sustainable human development. But, I ask, how have these twin realizations interacted? Why have women been forgotten in the powerful information world at the very moment that they are recognized as all-important? I suggest that for many in the developed world these two ideas spin, endlessly separated, like planets, never really touching, never striking each other to produce the sparks, which ignite actions. It is, more than ever, important to explore the ways in which the information revolution and the empowerment of women may be brought together.

Three fundamental convictions inspire my talk today:

- 1) Women must first be literate before they can be part of the world of information literacy.
- 2) Women in the developed and developing world must be part of the discussion. They should be involved in every stage of gathering and disseminating information and should determine what information is to be collected, and how and in what form it is to be shared.
- 3) All information gathered by worldwide organizations should include complete data on women, and this information should be disseminated in a form that is accessible and useable to women in every geographic and demographic setting.

First: Why do women in the developing world need full and unrestricted access to information? Just one example: women and the law. These women cannot benefit from laws of which they are unaware, laws which would help them in the workplace, in getting and keeping property, and in voting for officials who would serve them in their governments. Most importantly, they need the ability to see that laws already on the

books are truly enforced. Health information is another need: without basic health information and the ability to use it, women cannot take charge of their own lives. They will not know how to limit the number of children they will bear and, hence, they will forever face life as third-class citizens. Health literacy may be a desideratum for us; for most women in the developing world it is a matter of life and death for themselves and for their children. The paper by Ms. Kickbusch, Ms. Caldwell and Ms. Hartwig is eloquent on this subject.

Second: Why should women be involved in gathering and disseminating information? Just consider how little of the information in today's world pertains to women's lives in the developing world. If asked, and if we listened, they will tell us what information would be most useful to them and in what form they wish to receive it. Information should not just travel on a one-way ticket, from the developed world to the developing nations; it should also travel in reverse. These women should be encouraged to collect their information: indigenous art, stories, folk medicine, oral histories, religious culture – indigenous knowledge of all kinds that has been previously disregarded by the "information world." Again, see the Kickbusch, Caldwell and Hartwig paper. The listening has hardly begun. Yet not to involve women from the developing world in the discussion, fully and completely, will be carrying on a one-way conversation. The bitter end of colonialism should have taught us how useless and how harmful are one-way conversations. Have we, in the developed world, learned, really learned our lesson? The jury is still out.

Third: Why is data on women in the developing world important and why must they have better access to it? Women in the developing world raise the children, do much of the back-breaking daily work, farm, weave the cloth, negotiate for food and labor, and much, much else. But much of the world's information has to do with "men's work." Further, this information is most often disseminated throughout cities, and this is as true of the developing world as it is of the developed world. People in rural areas – especially women – come up very short if they receive any information at all. In the United States, 99% of the public libraries are now connected to the Internet. But women in the developing world, especially those in the rural sections, cannot walk to a library because there are no libraries. If women are to assert their rightful place in the world's evolving social, intellectual, political and economic systems, we of the developed world must work to see that women, all women, have access to and use of the world's gigantic, and still growing, information base. We must also consider that networking – made so easy by access to the Internet – between women of all countries and diverse backgrounds, could generate valuable insights and engender confidence in their own ability to cope with their lives in a swiftly changing world.

Again, "Information," as we are often told, "is power." Less often do we follow that statement with a discussion of "the responsibilities of gathering and disseminating information." What, then, I ask today is our responsibility toward the women of the

developing world – those women who often labor beyond endurance for their families? For too long we have congratulated ourselves on our information know-how without investigating our responsibilities with the same intensity. We must somehow extend the present very valuable discussion of information literacy to include in the distant future information literacy for all women in all countries of every socio-economic condition.

I suggest that we have a great responsibility to make access to information and information literacy a part of “women’s empowerment.” That women in the developing world must be empowered should be obvious to us all. But just how we go about this task is not as clear. What I do know is that bringing the world of information to these women and giving them a chance to contribute to it is a part of the answer.

The mandate of NCLIS is, in part, “to appraise the adequacies and deficiencies of current library and information resources.” This mandate does not stop at the water’s edge. We of NCLIS are, therefore, concerned now, and in the future, with women’s access to information and information literacy in the developing world as well as in the developed part of the globe. The three organizations here today, UNESCO, NCLIS and the National Forum on Information Literacy, are in powerful positions to help ensure that women in the developing world will have input in, and access to, all the information presently at the fingertips of the developed world. Until we understand the many oceans in which basic literacy and information literacy swim, our task is only half finished. I am sure, like me, you wish to see our task well finished. Phillip Candy’s quotation from the 68 Digital Opportunities Taskforce is deeply meaningful: “to help the poorest help themselves to create richer and fuller lives that express and affirm their own distinctiveness in an increasingly interconnected global village.” These are the women I have been talking about.

**LIST OF MEETING PARTICIPANTS AND PAPER AUTHORS**

**Note:** An asterisk (\*) opposite the participant's name indicates the individual was commissioned to prepare a paper in advance of the Prague meeting, but could not attend the meeting.

<p><b>Wilson Aiyepetu, Nigeria*</b> Morayo Atinmo and Rasheed Aderinoye University of Ibadan</p> <p><b>Shigeru Aoyagi, Japan/France</b> Chief, Literacy and Non-formal Education Section, Division of Basic Education, UNESCO</p> <p><b>David Bawden, UK*</b></p> <p><b>Patricia Senn Breivik, USA</b> Dean, Dr. Martin Luther King Library San Jose State University, California</p> <p><b>Christine Bruce, Australia</b> Associate Professor, Director of Teaching and Learning, Queensland University of Technology</p> <p><b>Amelia Caldwell, USA</b> Project Director, Research Division Dept. of Family Medicine, KU Medical Center</p> <p><b>Barbara Cambridge, USA</b> Vice President for Field of Inquiry and Action, American Association for Higher Education</p>	<p><b>Hana Landova, The Czech Republic</b> PhD Student, Charles University</p> <p><b>Feiching Ma, China*</b> Professor, Dean of School of Information Management, Wuhan University</p> <p><b>Camile McMahan, Australia*</b> Faculty of Information Technology, Queensland University of Technology</p> <p><b>Penny Moore, New Zealand*</b> Executive Director, International Association of School Librarianship</p> <p><b>Zdravka Pejova, Slovenia</b> Head, Information and Library Science, International Center for Promotion of Enterprises</p> <p><b>Gloria Ponjuan, Cuba*</b> Head, Department of Library and Information Science</p> <p><b>Philippe Queau, France*</b> Directeur de la division de la Societe de Information de l'UNESCO</p>
<p><b>Philip Candy, Australia/UK</b> Director, Learning Strategy &amp; Standards NHSU, London</p> <p><b>Toni Carbo, USA</b> Professor, School of Information Sciences and Graduate School of Public and International Affairs, University of Pittsburg</p> <p><b>Ralph Catts, Australia</b> School of Professional Development and Leadership/Faculty of Education, Health and Professional Studies, The University of New England</p> <p><b>Joan Challinor, USA</b> Chairperson, US National Commission on Libraries and Information Science (NCLIS)</p> <p><b>Bonnie Cheuk, Singapore/UK</b> Director, Knowledge Management, British Council</p> <p><b>Jill Cody, USA</b> President, Cody Associates (Meeting Facilitator)</p> <p><b>Ana Maria Correia, Portugal</b> Associate Professor, Universidade Nova de Lisboa</p>	<p><b>Catherine Quinlan, Canada*</b> The University Librarian, University of British Columbia Library</p> <p><b>Melinda Quintos de Jesus, The Phillipines</b> Executive Director, Center for Media Freedom &amp; Responsibility</p> <p><b>Hannelore Rader, USA</b> Dean, University Libraries, University of Louisville, Kentucky</p> <p><b>Elsa Ramirez, Mexico*</b> Researcher, Library Science Research Center of the National University of Mexico</p> <p><b>Kay Raseroka, Botswana</b> President 2003-2005, International Federation of Library Associations and Institutions</p> <p><b>John Rose, USA/France</b> Programme Specialist, Information Society Division, UNESCO</p> <p><b>Victor Rosenberg, USA</b> Associate Professor, School of Information, University of</p>

<p><b>Michaela Dombrovska, The Czech Republic</b>  <i>PhD Student, Charles University</i></p> <p><b>Soledad Ferreiro, Chile</b>  <i>Directora, Biblioteca Del Congreso Nacional De Chile</i></p> <p><b>Sharon Grant, Canada</b>  <i>Librarian, International Agency for Research on Cancer, World Health Organization</i></p> <p><b>Jose-Marie Griffiths, USA</b>  <i>Doreen E. Boyce Chair and Director Sara Fine Institute for Interpersonal Behavior &amp; Technology, School of Information Sciences, University of Pittsburgh</i></p> <p><b>Woody Horton, USA</b>  <i>Consultant, US National Commission on Libraries and Information Science(NCLIS)</i></p> <p><b>Lana Jackman, USA</b>  <i>Consultant, Melange, Information Services, Inc.</i></p> <p><b>Aija Janbicka, Latvia</b>  <i>Director, Scientific Library, Riga Technical University</i></p> <p><b>Sally Johnstone, USA</b>  <i>Director, Wcet, The Cooperative</i></p> <p><b>Lorna Jones, USA</b>  <i>Consultant, Melange, Information Services, Inc</i></p> <p><b>Barbie Keiser, USA</b>  <i>Senior Associate, Caliber Associates, Inc.</i></p> <p><b>Ilona Kickbusch, USA*</b>  <i>Division of Global Health Yale University School of Epidemiology and Public Health</i></p>	<p><i>Michigan</i></p> <p><b>Mirja Ryyanen, Finland</b>  <i>Former Member, Parliament of Finland</i></p> <p><b>Shawky Salem, Egypt</b>  <i>Chairman, Alex Centre for Multimedia &amp; Libraries and Professor, Information Technology, Alexandria University</i></p> <p><b>Nirmala Shrestha, Nepal</b>  <i>Head, Central Department of Library and Information Science, Tribhuvan University</i></p> <p><b>Caroline Stern, USA</b>  <i>Associate Professor, Department of Languages and Literature, Ferris State University, MI</i></p> <p><b>Frank Thompson, Australia</b>  <i>F. Thompson and Associates</i></p> <p><b>Peter Underwood, South Africa</b>  <i>Centre for Information Literacy, Department of Information and Library Studies, University of Cape Town</i></p> <p><b>Robert Wedgeworth, USA</b>  <i>President, ProLiteracy Worldwide, Syracuse, New York</i></p> <p><b>Martha Whitehead, Canada</b>  <i>Head, Information Services, The University of British Columbia</i></p> <p><b>Dorothy Williams, UK</b>  <i>Professor, School of Information &amp; Media, Faculty of Management, The Robert Gordon University</i></p> <p><b>Abdul Zia, Afghanistan*</b>  <i>Manager, Agency Co-ordinating Body for Afghan Relief, Resource and Information Centre</i></p>
---	---

**PROGRAMME-AT-A-GLANCE**

<b>Day One (Saturday 9/ 20/ 03)</b>	<b>Day Two (Sunday 9/ 21/ 03)</b>	<b>Day Three (Monday 9/ 22/ 03)</b>	<b>Day Four (Tuesday 9/ 23/ 03)</b>
<i>Participants Arrive and Register at Hotel</i>	7: 00- 8: 15 A.M. <i>Breakfast</i>  8: 30- 9: 00 A.M. Official Opening & Welcoming Remarks  9: 00- 9: 30 A.M. Meeting Format & Logistics  9: 30- 9: 45 A.M. <i>Break</i>  9: 45- 11: 45 A.M. "An Emerging Global Priority": National Case Studies	7: 00- 7: 45 A.M. <i>Breakfast</i>  8: 00- 10: 00 A.M. "Education and Learning"  10: 00- 10: 15 A.M. <i>Break</i>  10: 15- 12: 15 P.M. "Economic Development"	7: 00- 7: 45 A.M. <i>Breakfast</i>  8: 00- 9: 30 A.M. Consideration of Draft Findings, Conclusions & Recommendations  9: 45- 10: 45 A.M. Report Outs from Cluster Groups  10: 45- 11: 00 A.M. <i>Break</i>  11: 00- 11: 30 A.M. Presentation of Recommendations to UNESCO, ITU/ WSIS, & other institutions targeted for follow- up actions  11: 30- 12: 00 P.M. Closing Remarks
1: 00- 5: 00 P.M. <i>Hospitality Suite Open</i>  Greetings/ Hotel Info Participant Badges/ Packets Given Refreshments Available Displays & Sample Info Literacy Definitions Sightseeing Info Local Transportation Info Restaurant Info		12: 30- 1: 30 P.M. <i>Lunch</i>  1: 45- 3: 45 P.M. "Looking Forward": Policy Issues  3: 45- 4: 00 P.M. <i>Break</i>  4: 00- 5: 00 P.M. Pinpointing key Findings, Conclusions & Recommendations	12: 00 P.M. <i>Meeting Officially Adjourns</i>
4: 00- 4: 45 P.M. Organizers meet with Facilitators	12: 00- 1: 15 P.M. <i>Lunch &amp; Keynote Speaker</i>		

	<p>1: 30- 3: 30 P.M. "Starting With People, Cultures, and Health"</p> <p>3: 30- 3: 45 P.M. <i>Break</i></p>		
	<p>3: 45- 5: 00 P.M. Pinpointing key Findings, Conclusions &amp; Recommendations</p>	<p>5: 00 P.M. Facilitators &amp; Organizers meet</p>	
<p>5: 00- 6: 15 P.M. <i>Dinner at Hotel</i></p> <p>6: 30 P.M. Cluster Group Meetings (The 4 Cluster &amp; 1 National Case Study Group meet separately)</p>	<p>5: 00 P.M. <i>Free Evening</i></p>	<p>7: 00 P.M. <i>Banquet</i></p> <p>Facilitators and Organizers meet after Banquet if necessary to finalize Draft Recommendations</p>	



**WEBOGRAPHY  
of  
Selected NCLIS Website Citations**

*Click on the following:*

1. to see the abstracts for all commissioned papers submitted in advance of the meeting, arranged alphabetically by the author-participant:

<http://www.nclis.gov/libinter/infolitconf&meet/abstracts.html>

2. to see the full texts for all commissioned papers submitted in advance of the meeting, arranged alphabetically by the author-participant:

<http://www.nclis.gov/libinter/infolitconf&meet/papers/papers.html>

3. to see the topics index for all commissioned papers and panel group assignments for each paper:

<http://www.nclis.gov/libinter/infolitconf&meet/grouppapers.html>

4. to see biographical sketches for the participants:

<http://www.nclis.gov/libinter/infolitconf&meet/bios.html>

5. to see a report of the Preliminary Planning Meeting held at NCLIS in Washington, D.C. 10/9-10/10 2001:

<http://www.nclis.gov/libinter/infolitcfon&meet/CodyFinalRpt.pdf>

6. to see the Expected Outcomes planning document preceding the Prague meeting:

<http://www.nclis.gov/libinter/ExpectedOutcomes.pdf>

7. for the webpage that lists all other events that took place prior to the Prague Meeting, Sept. 20-23, 2003:

<http://www.nclis.gov/libinter/infolitconf&meet/infolitconf&meet.html>

8. for the webpage that lists all other events that took place (as of the date of this report) following the Prague Meeting, Sept. 20-23, 2003:

<http://www.nclis.gov/libinter/post-infolitconf&meet/post-infolitconf&meet.html>

9. for the press release template reporting on the Prague meeting:

<http://www.nclis.gov/libinter/infolitconf&meet/post-infolitconf&meet/PressReleaseForum.pdf>

10. for the Prague Declaration in languages other than English:

<http://www.nclis.gov/libinter/infolitconf&meet/post-infolitconf&meet/PragueDeclaration.pdf>