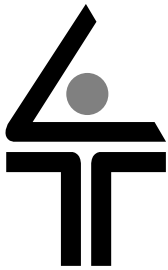
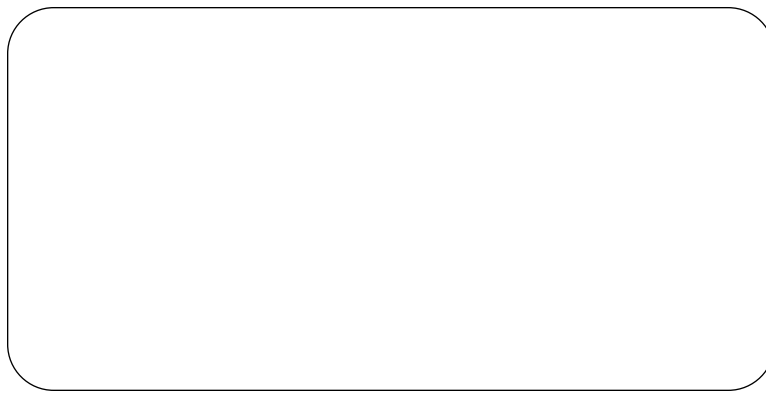




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Report of the International Forum
on Greater Accessibility of Adult
Learning Through New
Technologies — But How?



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Moderators: Gwynneth Evans (Canada) and Babacar Diop (Senegal)



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I Introductory Message to Participants of the International Online Forum

from Paul Bélanger, Director of the UNESCO Institute for Education

The development of new information and communication technologies brings with it hope for greater accessibility to learning opportunities for men and women. However, this development raises new issues: the difficulty of developing effective interactive communication; the fair use of intellectual property; the synergy between the media, the new information technologies and the traditional cultural infrastructures; the possibility for new technologies to encourage diversity; and the uneven distribution of new technological infrastructures around the world.

The UNESCO Institute for Education is grateful to Human Resources Development Canada, and in particular to the Office of Learning Technologies, for partnering with us in organizing this international online forum on greater accessibility to adult learning through new information technologies. We hope that both in its outcome and its process, this experience will help governmental and non-governmental institutions around the world make use of these new means of communication to improve international understanding and to ensure the right for everyone to have access to lifelong learning.

Finally, we would like to express our thanks to all who, from different regions of the world, agreed to join this global dialogue on lifelong learning and new technology.

II Introduction

Purpose of the Online Forum

The Fifth International Conference on Adult Learning, held in Hamburg, Germany in July 1997, emphasized that “efforts need to be made to ensure greater access to and participation in the means of communication for all cultures and social groups.” This online forum was organized to respond to this need. It was a concrete way to contribute to policy development on accessibility issues related to the use of technologies in adult learning. A collection of practical and tangible recommendations and proposals were developed based on different national and regional contexts, and fleshed out as a result of dialogue among concerned partners.

Organizers of the Online Forum

The online forum was jointly organized by the UNESCO Institute for Education (<http://www.unesco.org/education/uie>) and the Office of Learning Technologies (OLT), Human Resources Development Canada (<http://olt-bta.hrdc-drhc.gc.ca>).

Participants

In addition to the two moderators, Gwynneth Evans and Babacar Diop, 28 participants from 18 countries, in every region of the world, participated in the forum. The participants represented professional groups working in: universities, government agencies, voluntary organizations, educational networks, communications networks, training networks, distance education centres, adult education organizations, as well as regional, national and international organizations. Appendix 1 lists participants, their organizational and national affiliation, and their coordinates.

Duration

The initial conference called for a practice session in which participants could introduce themselves and test the conference software (November 2-9, 1998) and two weeks of discussion. The participants agreed to the forum’s extension to a third week (November 9-28, 1998).

The Conference Process

Every participant was given an alias name and a password to the conference site. This allowed participants to enter the site at their convenience, and to note additions to the search items and the attached messages. Participants could then read the new messages and add comments. The moderators visited the site regularly (except for a period when the network was down in Senegal) to stimulate further comment and exchange, and to summarize the discussion.

Languages of the Conference

Two separate sessions, one English and one French, had originally been planned so that English- and French-language speakers could be assured that their contributions would be understood by all participants. However, at the time of the conference, the number of French-language respondents was insufficient to ensure a broad and varied exchange. The organizers decided that the forum would be bilingual, and invited the participants to respond in the language of their choice. The moderators took into account the comments and questions of all participants in their questions, observations and summaries.

Technical Support

OLT provided the technical support for and access to the UNESCO/OLT Conferencing Centre, using the NODE in London, Ontario. The WWW software used was Caucus, version 3.0.6/i02, a product of Screen Porch Inc.

Summary of Responses

In all, 25 topics were discussed over the course of the online forum. Following welcoming messages from the organizers and introduction of the participants, the topics generally reflected the issues raised in the Backgrounder prepared by the organizers (see Appendix 2). The focus of the discussion centred on four areas: accessibility; learner involvement; training and the role of teachers and facilitators; and content development.

Resource List

Gwynneth Evans prepared the original resource list. Additional citations to documents and to the URLs of Web sites were provided by participants. There is an updated list in Appendix 3. A convenient feature of the WWW software allowed participants to click on the URL in the text to go directly to the Web site.

III Report Findings

The purpose of the international forum was to stimulate the development of policy and practice related to the use of technologies in adult learning, based on different national and regional contexts.

The main findings of the forum are organized according to the issues raised in the Backgrounder. Emphasis is on areas where the most discussion took place. During the discussion, these issues generated other questions. A summary of these general questions about adult learning follows to provide context for the report on specific discussions based on the Backgrounder issues.

What is Meant by Adult Learning?

During the discussion, six categories of adult learning were identified:

- acquisition of literacy;
- upgrading of basic educational qualifications and skills;
- formal accredited learning from institutions granting diplomas or degrees;
- specific vocational skills training;
- specific professional development initiatives; and
- development of a community of interest and support for lifelong learning through networking activities.

What are the Objectives of Adult Learning?

The objectives of adult learning included:

- community development (economic, social and cultural);
- individual development and empowerment;
- improvement in the physical and social lives of groups of people isolated from their communities (e.g., people living in remote areas, disabled people); and

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- citizen participation in nation-building and in the development of democratic practices, in the community, across the nation and around the world.

All participants emphasized both the social and individual contexts in which learning takes place throughout life — formally, informally and non-formally. They saw the discussion on the use of new technologies in adult learning as an integral part of the debate on the full continuum of the learning experience throughout life.

What Methodologies were Discussed?

Some of the learning methodologies identified by the participants included:

- the learning centre approach (i.e., a physical setting with facilities and resources for learning, and a facilitator);
- the network-based approach to creating a virtual learning centre;
- mentoring between an experienced person and a novice;
- intergenerational learning, where young people teach older people how to use learning technologies; and
- home-based, self-paced learning.

Participants identified the opportunity to share personal experiences as a significant and successful way to motivate people to learn, and to engage them in learning and in socializing with one another.

What are the Means for Delivering Learning Material?

The participants' experience with technologies was varied and vast. Group leaders/facilitators used everything from the natural resources around them to print, cartoons, radio, audio-cassettes, film, video, tele- and video-conferencing, e-mail and the Internet. Integrating technologies is recognized as an essential component of the planning, design and evaluation of the courses or programs. A mix of technologies is often effective and necessary, depending on the objectives, design and conditions of the learning experience. As well, the situation of the learners changes over time and, of course, the technologies evolve. Asking questions such as what technologies are available, and what might be acquired, at the beginning of the planning stage, helps ensure that technologies are integrated into the design and organization of the program.

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Some participants argued that simple, user-friendly and widely-available technologies made it possible to concentrate on the human questions surrounding the design and delivery of learning opportunities. Others were insistent that the new information and communications technologies (ICTs) must be integrated into learning because their networking capabilities can alleviate the marginalization of the poorest, most isolated or overburdened members of society. They overcome issues of time, distance, and location in ways that make them powerful for delivering learning programs. These technologies also support the development, adaptation and use of culturally sensitive and linguistically accessible content. Learners can also use them as tools to develop their own content.

Indeed, many of the participants from developing countries emphasized that their greatest challenge was to address the issues that the ICTs had been instrumental in surfacing: globalization; a knowledge-based economy; and rapid, unexpected fluctuations in the natural, economic and socio-cultural environments. All these factors influence the political and social conditions in which communities function.

The focus of all the discussions was on the learners, especially those marginalized by distance, poverty, gender, culture, isolation and lack of opportunity.

In considering the responsibilities of educators and trainers, participants indicated that the instructional, organizational, motivational and technical components of learning are interdependent, and that all play a role in the creation of programs and systems. The human elements remain central and critical, whatever technologies are used and integrated into the programing.

Responses to the Backgrounder Questions

A Accessibility Issues

In many parts of the world, the development of technologies has been uneven. Without exception, the technological infrastructure is stronger in urban centres. In most rural and remote areas, including islands, the basic infrastructure is not yet in place. Moreover, even in parts of the world where the infrastructure is established, issues of reliability and sustainability remain critical.

There was general consensus among participants on the major elements of accessibility to learning technologies. These were:

- the technical infrastructure which allows connectedness: telephone lines, electricity cable, satellite;
- equipment and facilities: computers, software, modems, etc.;
- computer-/technology-literate persons who can provide training, assistance, support and facilitation;
- appropriate linguistic and culturally-sensitive content and programming to meet the needs of learners; and
- opportunity, time and energy on the part of the learner to take advantage of the learning experience.

All agreed that while the initial costs of installing the technical infrastructure and equipment necessary to support learning technologies have been decreasing, the installation of these essential tools has been uneven. Urban centres with large populations and commercial interests have been favoured over rural, remote and less-populated areas. Even where the infrastructure has been laid, its reliability can not be guaranteed. Moreover, no society can assume that plans are, or will be, in place to include the installation and maintenance of the infrastructure in remote, thinly populated areas or the poorer sections of cities.

Several participants gave concrete examples that costs of the technical infrastructure and equipment are dropping (through deregulation, lower storage costs and the reduction of import duties, for example). However, it is important to assess all costs associated with accessibility. The costs of maintaining and managing equipment

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(including necessary upgrades); providing communications; training and supporting teachers/facilitators; and acquiring and developing suitable materials and content have to be factored into the financing of a sustainable, reliable learning system and service. One participant estimated that these costs amounted to three to four times the initial start-up cost, and led to the need to plan carefully to encourage stakeholder involvement from every sector and foster the sharing of resources (e.g., facilities, equipment and expertise).

To provide for both the initial development and sustainability of learning technologies, a number of stakeholders must be involved:

- governments working at the national, state/provincial and regional levels;
- civic society, including para-statal and non-governmental organizations and associations working locally, regionally, nationally and internationally;
- educators, teachers, facilitators and learners;
- donors;
- overseas development agencies;
- regional/international banks; and
- private-sector vendors and service providers.

National governments generally provide the policy, legislative and regulatory frameworks for learning (education, training) and the integration of new technologies. A number of participants noted that some politicians and senior officials have been beguiled by the advertising and publicity surrounding ICTs, and tend to identify educational reform only within the framework of these technologies. This narrow view does not take into account that learning goes on throughout life, occurs in formal, non-formal and informal ways, and is not dependent on technology. Participants emphasized the need to examine adult learning within its broader continuum of economic and social development.

Governments often promote development in their jurisdictions, and work with stakeholders at various levels — regionally, nationally and internationally — to advance their objectives. Several participants noted, for example, that their governments' decisions to remove or reduce import/customs duties for equipment had increased access to learning technologies by lowering prices.

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Participants from developing countries noted the influence that donors, overseas development agencies and banks have in shaping the technical infrastructure, as well as projects or programs. For example, donors sensitive to the needs of African women, or to the importance of equity and affordability in providing services to rural communities, draw up the terms of agreements for donations or loans accordingly. Several participants pointed out the economic reason for governments to invest in the integration of new technologies: a government must prepare its citizens for employment in a knowledge-based economy and for the capacity to engage in lifelong learning.

Participants also identified civic society as a significant stakeholder. Included were associations, non-governmental organizations (NGOs), teachers and learners. The participants articulated the need for teachers and their associations to represent learners and to act as interlocutors with other stakeholders such as the government, donors and the private sector. But they also emphasized the importance of including learners in the assessment of needs, the design of programs, and the planning and management of learning experiences. Included were those learners who have not used the technologies, as well as those who have. Networking among these groups was encouraged in order to expose non-users to technologies such as e-mail and the Internet, and to alleviate fear of technology.

B Learner Involvement

The participants' discussion on learner involvement was lively and stimulating. It focussed, in part, on situations where learners worked with a teacher/facilitator and, in part, on situations where learners and a teacher/facilitator were separated. In defining the parameters of the issue, participants grappled with questions of motivation, engagement and commitment to learning.

One participant teaches using the REFLECT method, which combines Paul Freire's theory and Rural Participatory Appraisal. Learners identify the issues, describe them graphically, develop pertinent words and phrases to reflect their discussions and decisions, and record them for both personal and collective use. The issues are based on the learner's context and reality; solutions are developed through a collaborative process.

African participants described community learning experiences in which groups draw cartoons to depict the situation they are analysing and the solutions they develop. The combination of oral, graphic and print traditions — supplemented by music, role-playing and play-acting — is an effective way to learn. Relating learning to the concerns and goals of the individual and the group or community was also successful.

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A number of participants raised the issue of different learning styles. In the literature, much is written on the collaborative nature of women's learning: social interaction, sharing experiences and learning from each other result in a blurring of the roles between teacher/facilitator and learner. Even when education levels and life experiences are diverse — as is the case in many adult learning contexts — the interactive, participatory involvement of learners appears to contribute to success. Research is being done on the impact of learner involvement, but some participants questioned whether there was much objective research to confirm what subjectively appears to be positive evidence.

In more formal settings where adults are upgrading their basic qualifications, motivation and engagement have been sustained by linking learning to broader life and career goals, and by encouraging learners to discuss their previous life and work experiences. Students are also asked to identify their course needs and expectations so that their responses can be taken into account for course planning.

In distance education, the learner can be motivated by the technologies, but it is important for the tutor to provide timely responses, and to be responsive to the learner. Some tutors/teachers use chat rooms and cyber cafés to stimulate conversation among learners.

There was a great deal of sharing of ideas and interpretations among forum participants. They appreciated the introduction to the REFLECT concepts and methods, and mused on how they might be applied to virtual communities which support voice, visual and text technologies (provided there is sufficient bandwidth and speed). Participants also had interesting exchanges about the meaning of technological literacy: all agreed that it includes an understanding of the social and cultural contexts in which the technologies are developed, understood and used. Questions about integrating the technologies to improve the quality of learning were juxtaposed with questions about whether the technologies change the qualitative nature of learning and act as transformational and transactional agents.

C Training and Mentoring/Coaching

Participants agreed that a change of attitude on the part of educators, the development of new skills and techniques, and time to make the transition to a lifelong learning environment are important factors in adult education. Teachers should be encouraged to move away from being the sources and purveyors of information and knowledge to become the facilitators/coaches and trainers who can foster lifelong learning.

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This shift is difficult for a number of reasons. Many teachers are overstretched, and have not had the opportunities to learn or work with the new technologies. In some communities, they have not had adequate basic training and are not compensated financially for the responsibilities they carry. Some teachers teach both children and adults, and find it difficult to change their methods and attitudes. Moreover, teachers who have not been exposed to the technologies are fearful and suspicious about their effects on teaching. However, most participants found that fear dissipates when teachers have a chance to familiarize themselves with the technology.

The participants noted the amount of information available on the World Wide Web, which allow learners to develop their own data base of information, rather than relying solely on teachers to convey the required knowledge. This observation led one participant to muse on the changing role of the teacher/facilitator. Teachers/facilitators help the learner develop research and retrieval skills, and the ability to analyse and discriminate among sites and sources for further use.

Given the potential of the Web and other technologies, participants commented on the need for user-friendly systems that are ubiquitous, affordable, easy to maintain and simple to learn. These characteristics are as important for teachers/facilitators as they are for learners. Even where a robust infrastructure is in place, resistance to new technology comes generally from the more senior and established members of society.

In discussing the role and qualities of a distance education centre facilitator/coordinator, several participants offered the following observations based on their experiences:

- coordinators train others in the use of the facilities and equipment;
- they act as trouble-shooters and points of contact;
- coordinators act as reference persons for students choosing courses and selecting library materials; and
- they are sensitive to students, keeping them motivated.

The personal attributes of the individuals (good communicator and manager of resources; sensitive to learners) are more important than their formal qualifications, although several institutions will hire coordinators with backgrounds in education, if they are available.

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Some participants have come to the conclusion that shock therapy is needed to force the changes necessary to develop a learner-centred collaborative learning system/program that takes into account the lifelong continuum of human learning. All members of the educational community — working in formal, non-formal or informal settings — need training in new methods, skills and approaches to learning and the ICTs.

Participants' examples of mentoring/coaching focussed on distance education and professional development. The personal skills and qualities of mentors are as important as their formal qualifications, in that they must be responsive to learners in distance education settings, friendly advisors, strong trainers and organized persons who can manage a number of issues concurrently. Some mentor-learner relationships are defined in learning agreements designed to engage the learner and evaluate learner progress.

In coaching for professional development, an experienced person is partnered with a novice, or an internship program is designed collaboratively. The technologies can help deliver such programs to those who do not have the opportunity to learn at a centre.

Like the blurring of roles between teacher and learner observed in interactive environments, mentors or coaches can learn from their students when their interaction is creative.

D Developing Content

The importance of linguistically and culturally sensitive materials that meet the needs and interests of learners was emphasized throughout the forum discussion.

Participants identified three kinds of materials:

- mostly English-language material from the Internet, television and radio, produced and distributed by northern industrialized countries, and available to communities with the infrastructure to receive it;
- locally developed materials that reflect a community's linguistic, cultural and social requirements, which can be shared or adapted by members of the community; and
- materials developed by individuals or groups for a specific need (e.g., using the REFLECT method).

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These distinctions took on an added dimension when the question of local language and issues of community and nation-building were considered because, in many societies, those who are literate may not be in the majority, or may not be literate in an international language. It is important to translate and adapt learning software for literate groups to their contexts, and develop appropriate content.

In general, successful materials rely on oral or natural speech, appeal to the aural and visual senses and demonstrate a clear link with life experience and context. More formal learning can be enhanced by adapting programming and resources to the local audience (e.g., receiving radio programs from regional or international networks). Using the Internet, individual learners can identify their own sources and create personal data bases.

Resources

The ease and transportability of technologies, as well as their affordability, are prerequisites to integrating the technologies into adult learning.

One of the concerns raised by participants is that the developing world will be saturated with content from the north, or will be the dumping ground for rejected and obsolete equipment from the north.

Also evident from the discussion was the need to assess the costs and ramifications of using the technologies — training, maintenance and upgrade costs, telecommunications costs, etc. A facilitator has a strong impact on motivation and success in adult learning. Ongoing issues of location, flexible timing and financing of the programs were important issues for the participants.

Multilingualism and Multimedia

The participants agreed that language is not only a means of communication, but also an important component of identity, cultural values and experience. It is, therefore, more constructive to prepare people to become multilingual, rather than to develop an artificial international language that belongs to no culture.

Multilingualism is also important in sustaining the rich and diverse cultural heritage of societies and peoples in an increasingly interconnected and economically interdependent world. Participants identified national governments as being responsible for developing and supporting coherent language policies.

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Because many societies have high illiteracy rates, and a large percentage of their literate populations are comfortable only in their local and related languages, accessibility to programming may be limited. Program content must take into account national and international languages.

IV Recommendations

In the discussion on **accessibility**, participants agreed on a number of recommendations. They are:

1. use community centres or public access sites as learning centres, where possible, because they are an affordable and sustainable way of integrating ICTs into learning. Participants gave examples of libraries, schools and community centres being adapted into lifelong learning centres, equipped with the infrastructure, resources, trained staff and opportunities to create, receive or adapt materials and content. Hospitals and clinics could also be used as learning centres because, in developing countries, they might have backup generators, etc. that other facilities do not;
2. recognize and plan for the accessibility needs of women. As they are often the primary caregiver to children and extended family, women may not have the time or resources to participate in formal learning. Their educational needs deserve to be considered as integral to the economic, social and cultural development of their communities and societies.
3. find community members to champion lifelong learning centres. These champions could come from the public, private or not-for-profit sectors. They could be of assistance in a number of ways, and inspire both voluntary and paid help;
4. encourage partnership and cooperation among the educational, information and communications sectors of a community, and have them work with local public- and private-sector stakeholders;
5. base the development of projects and programs on the learning needs of the local community, assess what support can be provided and identify who can be approached for assistance. The contribution of all stakeholders can be recognized, if it is in-kind in the form of goods, services, expertise, facilities, funding, etc.;
6. in countries where local languages are the most accessible means of communication and learning, explore whether materials prepared for radio, film or cassette can be shared beyond the community/border, using emerging regional networks;
7. link non-governmental organizations (NGOs) and associations working with learners with other groups in the same districts, countries or regions dealing with similar issues. They can share expertise, experience, questions, suitable content and advice, and can strengthen their roles as advocates, educators and learners of the uses of the technologies locally, regionally and nationally/internationally;

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8. build on the “ripple effect” of successful, learner-friendly programs. Examples include delivering radio programs not only to registered students, but also to their families, or sharing audio-tapes produced for one group with other groups that might find them helpful and interesting;
9. reflect the benefits of integrating the new technologies in all aspects of learning in strong economic and public-policy terms. The benefits include:
 - improved access to learning (people can access learning opportunities without the restrictions of distance, location and time),
 - administrative efficiencies,
 - improved quality of learning,
 - technologically literate learners, and
 - opportunities for persons with disabilities;
10. plan holistically at the community level to help citizens learn throughout life. Assess available technologies and plan for their integration so that resources (such as facilities, technical infrastructure, equipment, expertise, research and evaluation, and appropriate content and software) can be shared by the community;
11. using ICTs, create virtual communities — based on common language, culture, subject matter, policy issue, etc. — that span borders, time and distance;
12. encourage research and development at the international level to improve multilingual capabilities at the national and local levels, as well as multilingual exchange and communication (e.g., software and standards for diacritics and different alphabets; translation tools; multilingual interfaces and search engines; programs for language training);
13. support the networking of learners across borders so that their needs and expectations can be taken into account at the national and international levels;
14. involve younger people in teaching adults when they are available and are skilled in the use of the technologies; and
15. establish minimum standards and guidelines for the use and evaluation of the integration of ICTs in delivering distance education.

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These practical recommendations were made as a result of the discussion on **training**:

1. use a train-the-trainer system to maximize the development of new skills, attitudes and methodologies;
2. use cross-training techniques that involve multiple facets of training, facilitation and coordination;
3. encourage networking within and among professional groups (those with different levels of formal education, with varied specializations and methodological approaches), nationally and across borders;
4. demonstrate and promote the work of those who have created collaborative learning environments, where teachers and learners increase their capacities to learn and grow together;
5. recognize that change takes time and support from the community, the government and the partners. Raising expectations without being prepared for the consequences can be negative and detrimental to progress;
6. reward those who create and sustain collaborative and positive learning environments;
7. build on the positive aspects of the technologies by assessing the needs and situations of all sectors of the community and developing plans and programs that are equitable, affordable and universal;
8. make the arguments for integrating technologies and supplying training in economic terms: employability, but also providing more efficient and cost-effective support for groups isolated by structural, geographic or temporal constraints;
9. develop and invest in user-friendly equipment and sources (e.g., software) that can be learned quickly and easily; and
10. use young people for training, where appropriate.

V Concluding Remarks by Moderators

This online conference examined every issue raised in the Backgrounder. That said, the exchange focussed on four areas: accessibility, learner involvement, training and the role of teachers/facilitators, and content development. Clearly, these topics represent the major challenges facing participants.

Given the results of the forum, organizers may wish to conduct an evaluation of the process to determine its effectiveness. They may then wish to raise these four topics again with the same participants after a period of time (i.e., 12 to 18 months). By following up with the same group, this report can be used as a benchmark, the issues identified herein can be used to elicit further comparative experience and concrete proposals, and the recommendations can be evaluated. The participants now know one another and have some sense of the context in which each works. This advantage would be lost if a new group of participants was chosen, or if the lapsed time between sessions was too long.

Forum participants and readers of this report are encouraged to use the recommendations, the Backgrounder, and the resource and participants lists to follow up in those areas where cooperation and exchange would be beneficial and feasible.

Those with Web sites related to adult learning and the integration of technologies are encouraged to link to other sites, or to keep a list of current resources on their site. The subject is so broad and dynamic that it is difficult to centralize the responsibilities for tracking changed URLs and relevant documentation on the topics being discussed.

Finally, the moderators wish to thank participants for their contributions. The discussions were challenging and enriching. The moderators take responsibility for the content of the summaries and report, and thank the organizers for publishing the final report.

Appendix 1

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Appendix 2

Backgrounder

International Online Forum (November 9-27, 1998): Greater Accessibility of Adult Learning Through New Information Technologies — But How?

Jointly organized by the UNESCO Institute for Education, and the Office of Learning Technologies, Human Resources Development Canada

Against the background of increasingly rapid technological changes and possibilities, it is widely acclaimed that we are moving towards information-intensive societies and, presumably, towards learning societies. This paradigm shift is accompanied by an enlarged understanding of the “recognition of the right to education and the right to learn throughout life” which was expressed in the Hamburg Declaration of the Fifth International Conference on Adult Education, in July 1997. The right to learn incorporates the right to be informed, the right to question and analyze, the right to have a voice, and, ultimately, the right and ability to participate creatively in our communities in order to be in control of our own destiny.

The potential of information and communication technology for informal and formal learning activities and communication around the world is no longer questioned. New technologies are proving to be powerful tools for expanding access to the widest possible variety of learning experiences and for providing creative and effective ways to learn. For many, the use and benefits of these technologies are already a reality. For a great many others, however, accessibility is a barrier to this realization. The Hamburg Conference underlined that “efforts need to be made to ensure greater access to and participation in the means of communication for all cultures and social groups.”

The issue of accessibility of learning through new technologies, therefore, needs to be addressed. Accessibility encompasses many issues: awareness of the existence and potential of the technologies, technological infrastructure, financial resources, physical access to the technologies, access to the knowledge and skills required to use the technologies, availability of quality and relevant learning materials and programs, community participation in the production of learning materials, access to appropriate technologies and learning environments, and access to guidance and support structures.

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Numerous organized and unorganized activities throughout the world are demonstrating creative and innovative ways of accessing information and communication technologies – in different national and regional contexts and with different conditions, such as community radio or open venues with publicly available computers. What can be gained from these experiences for other contexts? Which concrete suggestions can be made to policy makers, media operators, learnware developers, institutions and practitioners in support of an environment that facilitates the accessibility of learning through technology for all citizens?

The aim of this forum is to contribute to the ongoing development of policy on accessibility issues related to the use of technologies in adult learning, by developing a collection of practical and tangible recommendations and proposals which are built on different national and regional contexts in the world today, and which are jointly elaborated through the dialogue among partners in those contexts.

Possible issues for discussion:

- major accessibility issues in your country or region or for the adult learners that you represent;
- existing activities at the government level, at the institutional level, and at the grassroots level to assist in making new technologies accessible to adult learners;
- creative and innovative ways in which people in different countries and environments access information and communication technologies;
- how communities, groups and individuals can help meet their needs in having or providing access to learning/using technology;
- how potential adult learners can acquire the knowledge and skills required to use new technologies;
- guidance and support structures for adults learning through technology;
- improving accessibility to and community participation in the production of learning materials and programs which are of high quality and relevant content (cultural, linguistic, etc.);
- suggestions for policy makers and administrators, developers of new learning and communication technologies, and practitioners and trainers to establish frameworks and cooperative strategies for increasing accessibility;

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- improving accessibility in the face of financial constraints and deficient or lacking infrastructures, and in view of powerful market forces;
- examples of international cooperation in this area and suggestions for increased activity.

Appendix 3

Resource List

General Background Material

Abadzi, Helen. *What We Know about Acquisition of Adult Literacy: Is There Hope?* Washington: The World Bank, 1994; 93 pages.

An interesting study on the barriers, determinants and instructional methods related to adult literacy.

Archer, David, and Sara Cottingham. *REFLECT Mother Manual: Regenerated Freirian Literacy through Empowering Community Techniques*. London: ActionAid, 1996; 278 pages.

Contact ActionAid at Hamlyn House, Arch Way, London N19 5PG. E-mail: davida@actionaid.org.uk and sarac@actionaid.org.uk

Chambers, Robert. *Whose Reality Counts? Putting the First Last*. London: Intermediate Technology Publications, 1997; 297 pages.

Contains information on Rural Participatory Appraisal, raised within the forum.

Delors, Jacques, et al. *Learning: The Treasure Within*. Report to UNESCO of the International Commission on Education for the Twenty-first Century. Paris: UNESCO, 1996; 266 pages.

This international consultation and commission has set the parameters for education in the 21st century, and has identified 4 pillars for lifelong learning: learning to learn; learning to do; learning to live with others; and learning to be.

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Fifth International Conference on Adult Education (CONFINTEA 1997). "Adult Learning." Background Documents. Special Issue of *Adult Education and Development*. Copublished by the Institut de Coopération internationale de la Confédération allemande pour l'Éducation des adultes et l'Institut de l'UNESCO pour l'Éducation, 1997.

Theme 7 Adult Education, Media, Culture and the New Technologies was addressed through an article by Gwynneth Evans, Susanne Jeanson and Toni Kaye, coordinated by Chris Kavanagh.

Mackeracher, Dorothy. *Making Sense of Adult Learning*. Toronto: Culture Concepts Inc., 1996. 288 pp.

Smillie, Ian. *The Alms Bazaar: Altruism under Fire — Non-profit Organizations and International Development*. Ottawa: IDRC, 1995.

This study examines the roles of northern, southern and transnational non-governmental organizations in emergency work and development. In the latter category, education plays a large role.

Taylor, Todd, and Irene Ward, eds. *Literacy Theory in the Age of the Internet*. New York: Columbia University Press, 1998.

Studies Reports, Proceedings, and Monographs

Cahoon, Brad. "Adult Learning and the Internet: Themes and Things to Come." *New Directions for Adult and Continuing Education*, vol. 78. San Francisco: Jossey-Bass, 1998.

Collis, Betty, and Gordon Davies. "Innovative Adult Learning with Innovative Technologies," *IFIP Transactions A: Computer Science and Technology*. Amsterdam: Elsevier, 1995.

A series of case studies and a chapter on evaluation. The conclusion is that the needs of learners are central and technologies used should take into account the learning context and adapt them to the social, cultural and cognitive demands of the learners. Teachers and course designers are responsible for ensuring this quality.

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Holt, Margaret. "Ethical Considerations in Internet-based Adult Education." *New Directions for Adult and Continuing Education*, vol. 78. San Francisco: Jossey-Bass, 1998.

Organisation for Economic Cooperation and Development (OECD). *Adult Learning and Technology in OECD Countries*. Proceedings of a round table held in Philadelphia, USA on 14-16 February, 1996. Paris: OECD, 1996.

These proceedings contain a useful summary (in English and French) of the issues raised by Stephen McNair of the National Institute of Adult Continuing Education in England and Wales, and case studies from a number of countries.

Organisation for Economic Cooperation and Development (OECD). *Adult Learning in a New Technological Era*. Paris: OECD, 1996.

This report addresses a number of themes related to learning technologies. It articulates a number of assumptions about the technologies and education, and draws conclusions.

Scott, Sue, Bruce Spencer, and Alan M. Thomas. *Learning for Life: Canadian Readings on Adult Education*. Toronto: Thompson Educational Pub., 1998.

There is a chapter by Bruce Spencer on distance education and the virtual classroom.

Starr, Christina. *The Janus Project Workshop. New Technologies and Women*. Proceedings of a conference held in Montreal, Quebec, March 21-22, 1997. Toronto: Canadian Congress for Learning Opportunities for Women, 1997.

Articles From Periodicals

Babchuk, Wayne A., and Sean Courteney. "Towards a Sociology of Participation in Adult Education Programmes." *International Journal of Lifelong Education* 14, no. 5 (September/October 1995): 391-401.

This article identifies the results of a survey of learners and the motivations and means by which they became participants.

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Bennett, Peter. "The Heart of Distance Education: A Student's Perspective." *International Journal of Lifelong Education* 17, no.1 (January/February 1998): 521-60.

This article describes the experience of both an educator and student who followed a course away from his own country and the support systems of campus centre, accessible tutor, readily available materials, etc.

Bruce, Bertrand. "Literacy Technologies: What Stances Should We Take?" *Journal of Literacy Research* 29 (1998): 289-309.

Clark, Robert E. "Media Will Never Influence Learning." *Educational Technology Research and Development* 42, no. 2 (1994): 21-29.

Harris, Elayne. "From Broadcasting to Narrowcasting: Television as a Language of Possibility for Community Development in a Learning Society." *International Journal of Lifelong Education* 16, no. 1 (January/February 1997): 54-72.

This article describes an experience with local/community television in Newfoundland.

James, D., et al. "Introducing Older Learners to Information Technology through Life History Writing." *International Journal of Lifelong Education* 15, no. 1 (January/February 1996): 50-58.

Jones, Adele M. E. "Communications Technology, Human Resource Development and Sociocultural Issues: Considerations for Small Gulf Countries." *Convergence* 29, no. 4 (1996): 49-57.

Mobley, Mike, and Marnae Wilson. "Cultural Aspects of Internet Usage: A Preliminary Inquiry." *Educational Technology Research and Development* 46, no. 3 (1998): 109-113.

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Morrison, Terrence. "Global Transformation and the Search for a New Educational Design." *International Journal of Lifelong Education* 14, no. 3 (May/June 1995): 188-213.

This is a seminal article written to identify the relationship between societal change and educational policy on a global level. It looks at policy issues and models. The basic thesis is that we have moved from a content-centred educational model to a process-centred model where the systems must be adaptive, with recognized elements for being learner-centred, open, change-focussed, value-based and technologically mediated.

Rogers, Jim. "The Internet: Emerging Technologies in Two West African Countries." *Educational Technology Research and Development* 46, no. 3 (1998): 103-109.

Roth, Gene L., and John Niemi. "Information Technology Systems and the Learning Organization." *International Journal of Lifelong Education* 15, no. 3 (May/June 1996): 85-93.

This article addresses the issues of organizations, rather than educational institutions.

Swindell, Richard, and Claire Mayhew. "Educating the Isolated Ageing: Improving the Quality of Life of the Housebound Elderly through Educational Teleconferencing." *International Journal of Lifelong Education* 15, no. 2 (March/April 1996): 85-93.

This article gives the results of a program for the housebound: what subjects learners liked, and what worked or didn't work. Part of the intention is to support independent, healthy living.

Taylor, Peter. "Openlearning and the New Educational Order: Some Questions of Access and Participation." *International Journal of Lifelong Education* 16, no. 2 (March/April 1997): 121-131.

This is a response to the Morrison article which also comments on the Australian Senate Employment, Education and Training References Committee reports. He asks: "access to what, how and to what end?"

“Technologies et approches nouvelles en formation.” *Éducation permanente*
[Paris, France] no. 127 (1996).

The whole issue deals with technologies, with articles in French and abstracts
in English.

Web Sites/Web Documents

Many international organizations, national governments, and national and inter-
national non-governmental organizations (e.g., Commonwealth of Learning, Aga
Khan Foundation), as well as specialized institutes and centres, have Web sites. As
well, individual specialists publish in electronic form through Web sites. Some Web
sites include links to those major sites, as well as lists of electronic journals, etc.

Site addresses were correct as of March 19, 1999.

A few specialized sites are:

Elmore, Jennifer. *Adult Literacy, Technology and Public Policy: An Analysis of the
Southeastern United States*. Literacy online.
<http://www.literacyonline.org/seirtec/Seirtec1.htm>

African'ti (La Connectivité en Afrique/African Connectivity).
<http://www.regards.cnrs.fr/africanti/>

AMREF (African Medical and Research Foundation). <http://www.amref.org>

Apprendre sur le Web. <http://teleeducation.nb.ca/aslw/map.html>.

Assessing Lifelong Learning (ALL-Tech). [http://litserver.literacy.upenn.edu/tech/
index.html](http://litserver.literacy.upenn.edu/tech/index.html)

A very useful evaluation manual is available from this site.

Institute for Learning Technologies, Columbia University.
<http://www.ilt.columbia.edu>

Communautique (Montreal, Quebec), une inforoute communautaire.
<http://www.communautique.qc.ca>

Critical Issues in Education and Technology. <http://www.ctf-fce.ca/e/what/restech/critical.htm>

Draft Strategic Planning Framework for the Integration of Information Technologies in Manitoba's Education and Training System. Manitoba Council on Learning Technologies. <http://www.colt.merlin.mb.ca/>

Europace. <http://www.europace.be>

Evaluation of the use of the technologies in distance education.

European Commission on Open Distance Education. <http://europa.eu.int/en/comm/dg22/socrates/odl/ind1a.html>

Gender & Technology Study Group, The Open University. <http://mcs.open.ac.uk/gentech>

The Impact of Technology. <http://www.mcrel.org/resources/technology/impact.asp>

International Electronic Journal for Leadership in Learning.
<http://www.ucalgary.ca/~iejll>

Jensen, M. *Africa Internet Density.* <http://demiurge.wn.apc.org:80/africa/density.htm>

Jensen, M. *Bridging the Gaps in Internet Development in Africa.*
<http://www.idrc.ca/acacia/studies/ir-gaps.htm>

Learning without Frontiers. <http://www.unesco.org/education/lwf>

Visser, Jan. *Multilingualism in a Pervasive Learning Environment.* 1997.
<http://www.unesco.org/education/educprog/lwf/doc/multi.html>

National Adult Literacy Database. <http://www.nald.ca/index.htm>



National Institute of Adult Continuing Education. Dr. Alan Tuckett, Director.
Niace@niace.org.uk

Russell, Thomas L. *The "No Significant Difference Phenomenon,"* 5th edition. 1999.
<http://teleeducation.nb.ca/nosignificantdifference/>

Office of Learning Technologies, Human Resources Development Canada.
<http://olt-bta.hrdc-drhc.gc.ca>

Open College, CJRT-FM 91.1 (Toronto, Ontario). <http://www.cate.ryerson.ca/~opencollege/>

International Institute for Environment and Development. <http://www.iied.org>

Questions critiques en éducation et en technologie. <http://www.ctf-fce.ca/f/notre/restech/critique.htm>

Le Soleil (Dakar, Senegal). <http://www.primature.sn/lesoleil/archi4/home.htm>

Technology and Adult Literacy: Findings from a Survey on Technology Use in Adult Literacy Programs. <http://litserver.literacy.upenn.edu/tech/index.html>

Uimonen, Paula. *Internet as a Tool for Social Development.* Paper presented at the Annual Conference of the Internet Society, INET 97, Kuala Lumpur, [June] 24-27, 1997. <http://www.i-connect.ch/uimonen/INET97.htm>

A useful framework for the study of the potential role of the Internet in promoting sustainable and equitable development in developing countries.

UNESCO Institute for Education. <http://www.education.unesco.org/uie>

Women'space. <http://www.womenspace.ca/sitemap/html>

Feminist Resources

Benjamin, Lehn M. *Feminist Teaching Methods for Adult and Popular Educators.* Shirley Walters, and Liz Mackenzie, eds. Bellville, Western Cape: Centre for Continuing Education. [1994]

Kabua, Wanjiku, Mashiti Masinjila, and Wanjiku Mbugua. *Delusions: Essays on Social Construction of Gender*. 1994. (Available from FEMNET Secretariat in Nairobi)

Practical Resources for Teaching/Learning

Videos: ACE Communication

Raphael Tuju

Tel.: 890467

E-mail: aceom@africaonline.co.ke

Folk art, puppetry and wall murals: FPPS

Daudi Nturibi

Tel.: 715002

E-mail: fpps-k@net2000.ke.com

Audiotapes: TOPCOM Productions Ltd.

Tom Karungo

Tel.: 715273 or 713430

Print materials to use with the above:

PATH Kenya

Tel.: 569375

Fax: 254-2-566714

E-mail: pamela@ken-healthnet.org

Billboards: Reprographics Ltd.

Bartons Mwangi

P.O. Box 59022

Nairobi

Tel.: 288491

