



UNESCO Institute for Education, Hamburg, Germany

**CREATIVE AND INCLUSIVE STRATEGIES
FOR LIFELONG LEARNING:
REPORT OF INTERNATIONAL ROUNDTABLE
27 - 29 NOVEMBER 2000**

Editors:
Gillian Youngs, University of Leicester (UK),
Toshio Ohsako & Carolyn Medel-Añonuevo,
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UNESCO Institute for Education, Hamburg, Germany,

2001

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ISBN 92 820 1110-0

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Report of the International Roundtable on Developing Creative and Inclusive Strategies and Partnerships for Fostering a Lifelong Learning Culture

Introduction

Background and expected results

As UNESCO's international reference centre for lifelong learning, UIE, over its thirty years of experience in this field, has initiated several research activities in this area and collaborated with a number of institutions and researchers all over the world. Building on these experiences in elucidating a conceptual framework of lifelong learning, the Institute has been reviewing, at the onset of the new millennium, existing lifelong learning perspectives as well as elaboration on new perspectives. The Institute has come to the conclusion that it can contribute to the emergence of a holistic and integrated framework that takes into consideration the cultural, social, political and economic components, as well as the vertical and horizontal aspects of lifelong learning. The current complex, rapidly changing, globalizing and information-intensive learning environment produces a need to revisit and examine existing frameworks of lifelong learning, with a view to making them more relevant to the individuals, communities and societies in the 21st century.

The Round Table was proposed within the framework of UIE's programme Cluster 1: 'Learning Throughout Life in Different Cultural Contexts: From Laying Foundations to Strengthening Participation'. It is also a follow-up to the 'Global Dialogue 7: Building Learning Societies: Knowledge, Information and Human Development', held at EXPO 2000 (6-8 September 2000, Hanover, Germany). It also constitutes an exploratory stage in the formulation of a UIE-led and co-ordinated follow-up activity area to the World Education Forum (WEF, Dakar, April 2000).

The meeting was conceived within an interdisciplinary/multi-disciplinary perspective since the creation of a lifelong learning culture is a co-operative enterprise among all actors having a stake in lifelong learning - the learner, parents, school, community, industry, government, and so on.

The results from the Round Table are particularly important for the orientation of UIE/UNESCO's medium-term strategic programming of lifelong learning activities. The key areas include:

1. Description of priority issues, as well as those areas of lifelong learning that have been relatively unexplored.
2. Analysis of trends and indicators of transformation towards lifelong learning and the creation of learning communities.
3. Recommendations and suggestions to UNESCO/UIE and all other partners of lifelong learning regarding the roles, strategies and actions to be taken for promoting a lifelong learning culture.

Although the questions raised reflect the areas of UNESCO/UIE's interest in lifelong learning, participants were invited to express views and opinions freely, and to raise additional questions on how to analyse and understand lifelong learning today, as well as how to anticipate and act on its development in the near future.

Participation

Thirteen participants from the following countries took part in the meeting: Brazil, Egypt, Germany, India, Kenya, Nigeria, Sweden, and the United Kingdom. Seven observers were present from Germany including a specialist from the German Commission for UNESCO and a specialist from the Basic Education Division, UNESCO, Paris. Eight UIE research staff members also joined the meeting. A list of participants, observers and the research members of the UIE is provided in the Appendix.

Inauguration

The meeting was opened by Professor Wilfried Hartmann, Vice-President, University of Hamburg and Vice-Chair, Governing Board of the UIE and Dr Toshio Ohsako, Senior Research Specialist and Co-ordinator of lifelong learning programmes of the UIE.

Organisation

The meeting began with the introduction of the objectives and background to the Round Table presented by the UIE. This was followed by the presentation of the reports of participants and comments on them, with concluding sessions working towards a summary of the Round Table discussions. Following the identification of key areas, the summary was prepared by the Rapporteur for the Round Table, Dr Gillian Youngs, assisted by two research members of the UIE.

Closing session

The draft summary report of the Round Table was discussed, modified and approved by participants.

(Toshio Ohsako)

Summary of discussion

Based on the presentations and the subsequent discussions, three main areas have been identified. The main conclusions of the meeting are:

A. Lifelong learning should be redefined to take account of:

- The unique role of learning in equipping individuals and communities with strategies in relation to problems, motivations and desires.
- The need to recognize the wider range of knowledge forms that exist in the world, such as local production techniques in areas like weaving and soil management, and to find ways of institutionalizing this recognition.
- The importance of understanding the value of these forms of knowledge to the agency of individuals in different cultural contexts. This means examining the institutionalized discourses in different regions and the ways these are related to common sense/traditional notions of lifelong learning.
- The role of technology, in particular information and communication technologies (ICTs), mass media and traditional communication techniques used by local communities, and the relationship between them in furthering contrasting locally-based life learning goals.
- Partnership as a critical strategy involving all participants in an framework of equality including governments, NGOs, local communities, industry, research institutions, academics, other UN bodies, international institutions, formal, non-formal and informal education. This includes defining jointly the roles and responsibilities of the different stakeholders.
- The problems of a dominant economic interpretation of lifelong learning which fails to address sufficiently different inequalities within communities and across North-South divides. The need to assess the issues relating to the definition and dimensions of lifelong learning such as: vertical articulation (across life span), different levels of education - horizontal integration (school, media, university, workplace, community - formal, non-formal, informal, vocational); economic, social, cultural, technological and political aspects.

- The need for sensitivity to the differentiated positions of individuals in developing and developed country contexts in managing insecure, fragmented and multiple-work patterns.
- In this context, to ensure processes responsive to gender and culture, including emphasis on cross-boundary, cross-sectoral and cross-generational issues.
- The linkages between adult learning and basic education in this framework.

B. How lifelong learning can aid critical understanding of globalization and its problems

- Addressing the ways in which the least advantaged individuals and countries are forced to generate responses to crisis and failures in the global economic sphere. Identifying how locally generated coping strategies can be supported and enhanced.
- There is clear evidence that various cultural, social and religious values and practices, have endowed individuals and communities with distinctive resources. For example, language as a local resource should be considered. These are not as yet clearly understood, documented, and analyzed. This can be done through a cross-cultural study of lifelong learning practices with an assessment of successes and failures. Part of the aim is to highlight what can be shared and utilized across borders.
- The consequences of population mobility around the world including language barriers, racism, xenophobia, inequalities of life opportunities within communities. Recognition that migrants contribute their own resources but also require particular forms of assistance in their lifelong learning paths.
- With the new global knowledge system, the status of all forms of knowledge is being re-addressed. This process offers new opportunities for more inclusive approaches to local forms of knowledge and skills.
- The continuing role of traditional mass media and media literacy skills and the need to link these with the new possibilities of ICTs. Providing computers is insufficient. Priority should be given to community lifelong learning goals and local ideas about appropriate media. ICTs have the potential to encourage more active and critical mass media participation.
- Exclusion is the key negative outcome of globalization. Lifelong learning must address this issue which systematically marginalizes women, children, indigenous communities, disabled, older people, ethnic groups and the poor. Existing strategies in both North and South should be examined to identify what further

support is required to increase, for example, girls access to education at all levels, to attain gender equality.

- Because economic change forces individuals to be more flexible, governments and other partners need to collaborate on creative and empowering strategies to allow individuals to move between various learning opportunities (basic, formal, informal, non-formal). This places emphasis on the relationships between those systems.
- NGOs are playing an innovative role, particularly in the use of the Internet, in developing media literacy and formal, non-formal and informal learning. Their examples should be studied and evaluated to make available such resources more widely, including to the majority without access to Internet.

C. Lifelong learning can be a transformative aspect of building knowledge societies through:

- A broader critical interest in contrasting forms of knowledge and their contributions to lifelong learning. Recognition of the need to integrate the economic, political and social in this context. Strategies for taking account of local/indigenous/community knowledge and its interactions, potential or actual, with other forms of knowledge. Linking different kinds of local knowledge to policy processes including at the national and international levels.
- Approaches that identify lifelong learning as an integral part of guaranteeing that basic education has enduring effects in societies. Prioritization of the need for lifelong learning to sustain the foundation that basic education provides.
- The development of appropriate indicators to measure successes and problems in lifelong learning systems. Consideration of the future role of transformations in teaching systems and learning institutions, including higher education.
- Using learning processes and respect for traditional and local knowledge systems as part of enhancing inclusiveness.
- Expanding the economic model of lifelong learning, which is driven by the formal and vocational, to integrate social and cultural resources to achieve a more holistic model.
- Increasing the diversity of inputs into lifelong learning and examining the creative ways in which different sectors interact or could interact. Unpacking the contribution of informal to formal learning.

- A complex model of the motivated individual that takes account of the relationship of empowerment to such issues as sexuality, ethnicity, religion, identity. Critical investigation of masculine and feminine identities and their orientations.
- The utilisation of lifelong learning as a tool for people to think in terms of lifelong strategies. This framework could help people to discover the exact nature of their own resources and specific ways in which these could be supported and developed to match those strategies. It could also assist in developing understanding of the identities constructed/constituted within processes of lifelong learning.
- Investigation of the role of lifelong learning processes in addressing information overload and the necessary skills to manage and inter-relate different forms of knowledge, and assess their relevance at particular times to individual and collective life goals and strategies.
- Recognition of the role of lifelong learning in building empowered and person-centred critical approaches to the contemporary 'risk society'. Lifelong learning includes the ability to learn from mistakes and failures which helps people and communities to cope and take new risks.
- Attention to the importance of political healing regarding past and present conflicts (for example, colonialism, nationalism, xenophobia, apartheid, ethnic) and lifelong learning as a focus for increasing understanding and capacities to address the human results of such conflicts. Supporting individual and collective efforts to move beyond them.
- Integration of other disciplines in understanding lifelong learning, for example, neuro-sciences, in the study of memory and pre-birth learning.
- An open and creative approach to ICTs that recognizes the multiple questions of inequality associated with them (access, training etc) but identifies them as one of the major characteristics of knowledge societies. Emphasis on grounded approaches to ICTs, focusing on person and community-generated ideas of how they would be useful rather than on market or other externally imposed ideas. Recognition of the support ICTs can provide in diverse ways to the building of new 'knowledge communities', including across social, national, gender and other kinds of boundaries. Recognition also of the importance of understanding ICTs as information and communications systems, which raise questions about 'whose information', and which facilitate critical communities of learning between those who have different kinds of information on particular topics.

(Gillian Youngs and Carolyn Medel-Añonuevo)

PARTICIPANTS' REPORTS

(alphabetically according to contributors' names)

Lifelong learning: implementing a generally accepted principle

Elisabeth Bittner

The paper will focus on lifelong learning, pursuing the question of how different areas of education need to change in order to contribute to the implementation of this internationally recognized principle.

First it will give a brief sketch of the new challenges in our society. Then it shows how discourse about education and the lifelong learning issue can be initiated. Finally it looks at core areas to concentrate on, in order to implement the concept of lifelong learning.

New Challenges

In the modern knowledge and information society, knowledge becomes more and more important. Knowledge becomes increasingly important for the individual as much as for our society. Future life chances depend to a great extent on whether individuals are successful in acquiring knowledge. Therefore education plays a key role with respect to future changes and development, not only for personal development but also for participation and democratic citizenship, and for employability of the individual and the competitiveness of our economy.

Germany experiences a new debate on education as this transition to a knowledge - based society makes new demands on the education system in terms of innovation and quality.

The Heads of State Summit held in Lisbon in March 2000 confirmed that the future objectives of the education and training systems of the member states should be reflected on in the light of this transition.

No one could have expected all the rapid changes that have taken place during the past years, and today no one can predict reliably the development and the changes still to come. We know, however, that the paradigm of a learning society becomes more and more important and that learning how to learn becomes increasingly crucial.

It is by reorganizing teaching and learning that we will be able to impart and acquire the knowledge that we will need tomorrow. The traditional occupation principle, that is, lifelong employment in an occupation for which one has been trained, has long since become outdated. Increasingly, work organization is based less on hierarchical structures, combines work and learning, and is characterized by team work and greater individual responsibility as well as by the ability to organize change.

There is also a growing need for medium and higher-level qualifications accompanied by a dramatic decline in employment opportunities for unskilled and semi-skilled workers. New cultural skills are required such as digital literacy, including technical and subject-related knowledge and command of at least one foreign language. Advances in European integration and the internationalization of personal and economic life require an understanding of other cultures and knowledge of foreign languages.

From the changes described and the new requirements to be met by education two conclusions can be drawn.

1. Social and economic progress and future competitiveness will largely depend on motivation for lifelong learning. An aging society is also a factor here.
2. Growing qualification requirements must not lead to social exclusion. Enabling less qualified adults to engage in lifelong learning is of particular importance.

Lifelong Learning

Quite a large number of concepts of lifelong learning have been published by various organizations: the Council of Europe, the European Union, UNESCO and OECD. Looking at these concepts more closely similarities can be identified, mainly in relation to pedagogical objectives and conclusions (see also Kraus 2000). Lifelong learning is characterized by a change of perspective in teaching and training. Instead of linear and hierarchical thinking and orientation patterns, active participation and process orientation come into focus. Lifelong learning encompasses all target groups as well as all levels and areas of education, including learning processes outside institutions in every day life.

The question is how this principle can be implemented. Consideration needs to be given to which framework conditions, structures, contents and methods can contribute to fostering a motivation for lifelong learning, and a learning competence for a self-responsible learning process that includes social and communicative competencies. All countries have a stake in meeting this challenge. Germany is responding to it through a number of key initiatives at states and national level. The

following section of this article refers to one of these initiatives; the 'Forum Bildung' (Education Forum) which aims at promoting educational reform and lifelong learning.

Education Forum

In 1999 the Federal Government and the Länder established the Education Forum to focus on the quality and the vitality of the German education system. It is a joint responsibility. The members are ministers of education and science of the Federal Government and of the Länder, as well as representatives of the social partners, of universities, churches and of trainees and students. It is the first time for years that through active involvement of these partners education policy is addressed. And it is a formidable chance.

The task is to prepare recommendations for core issues of education, concerning the goals, content and methods of education. These core issues are:

Tomorrow's education and qualification goals

This first core issue is supposed to lay foundations for the other four priority themes. It focuses on the new skills needed to cope with and manage change. These new skills cover key areas of knowledge and competence, all of which can be acquired by formal as well as informal learning. Formal learning understood as the institutionalized learning process embedded in an organized time schedule; informal learning referring to flexible learning phases of the individuals, according to their personal interest and motivation in different situations and environments.

Fostering equal opportunities

Here the focus is on differences in achievement and how these are linked with teaching and learning. The Education Forum considers early individual support during transition from one educational context to the other as crucial for equality of opportunities, and concentrates its debate on transitions from kindergarten to elementary school, from school to vocational training, etc.

Quality assurance for international competitiveness

This topic puts emphasis on the development of a comprehensive concept of developing and ensuring quality in the education system, considering the relationship between autonomy and evaluation.

Lifelong learning

The fourth priority theme focuses on the continuum of lifelong learning in all areas on all different levels of education including informal learning. The principle of lifelong learning is considered comprehensive in the sense that it encompasses more than learning throughout life – it asks for a change in attitude from everyone involved. A comprehensive concept for a political strategy to implement lifelong learning will be developed.

New culture of teaching and learning

This priority theme relates to the fact that lifelong learning is not an add-on in the learning process but on the contrary fundamentally changes teaching and learning environments, as well as the teaching and learning process itself. Again the question of teacher training is a central one.

The Education Forum cannot reinvent the wheel. Work on the priority themes includes the recommendations resulting from *expert groups* and from the national debate. *Public debate* is of great importance in this respect. Step by step results produced by teams of experts are publicly communicated and discussed on the Internet, at conferences and at workshops.

Then at the end of this process, the results produced by the experts and the public debate are submitted to the Education Forum for final discussion and for drafting recommendations concerning the individual priority themes. The final recommendations are then published and presented to the public at a final conference to be held in late fall 2001.

The homepage, which can be found at www.forumbildung.de, comprises not only a large virtual library on education reform in Germany but also a database with selected examples of good practice linked to the core issues. International comparison enables the forum members to learn from the experience and success of others. Therefore national and international examples of *good practice* play an important role in developing solutions. The work of the Education Forum is supported by a working unit at the office of the Bund-Länder-Kommission for Educational Planning and Research Promotion. The Education Forum has signaled the growing political acceptance of lifelong learning as a crucial dimension of life in the 21st Century. It is a national *pact for education* and there is a basic consensus that with reference to the set targets new demands can be met.

What can the Education Forum do to implement lifelong learning?

The Education Forum has by now started the initial discussion of the first four priority themes and collaborated with groups of experts to work out a specific report for each of the themes. The first two reports have already been delivered and can be taken into account in preparing preliminary recommendations. As to the priority theme 'Lifelong Learning', only the initial discussion has taken place. It is through this discussion that the Forum agreed to approach the implementation of the concept of lifelong learning .

As a general principle the Forum underlines the point that lifelong learning places the individual at the center of attention and puts emphasis on the development of individual competencies of the learner. This leads to specific basic values which cross-cut every issue discussed. These basic values can be distinguished as participation, equality of opportunities and self-responsibility.

Participation here means active involvement of every member of a learning situation. It would therefore be desirable to raise the demand for learning by open learning pathways including informal learning environment, personal and vocational guidance and counselling services. Participation also includes mutual support, commitment and co-operation as well as feedback for the persons involved. It results in a broader concept of human learning and also goes beyond - towards a citizens' commitment to support lifelong learning for all (see also Dohmen 1998: 34-35)

Equality of opportunities refers to the common understanding of the forum members to promote lifelong learning for all and to promote access to education throughout life, which includes measures to support gender democracy and to combat exclusion. In order to provide knowledge and future qualification an education system needs to offer best possible individual support. It is the basis from which every individual can develop according to his or her interests and skills. It is a necessity in order to avoid exclusion and to strengthen social and cultural cohesion.

Self-responsibility and the development of self-directed learning in school, initial training and continuing education are of prior importance, and to strengthen self-responsible learning is one of the major tasks of future educational practice. Promoting lifelong learning for all includes consideration of provision of adequate support services such as counselling to remove barriers to adult learning. Guidance and counselling for adult learners may also be crucial to help the individual find and decide on the best course of action for the future. The approach to implementing a strategy for lifelong learning covers *5 core areas*. They build the framework for further research of the experts and for concrete recommendations.

1. Motivation for lifelong learning

Education and vocational training need to be motivating in order to raise the awareness and the ability for continuous learning. Therefore any priority of action needs to put the individual learner into the focus of attention. Motivation for continuous learning emerges from the experience that learning is meaningful to the individual. The definition of lifelong learning introduced in the 1999 Employment Strategy of the EU includes this element. Lifelong learning is considered as 'all purposeful learning activity, whether formal or informal, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence.' It is conceded that the 'definition is based on the view that everyone, whether employed or not, should be able, motivated and actively encouraged to learn throughout his/her life' (see also European Commission: Lifelong Learning and the Employment Strategy, ELC/006/00/EN).

The process of lifelong learning starts in kindergarten, continues in initial schooling and throughout life. It requires the awareness, the recognition and the understanding of the usefulness of the variety of learning processes in everyday life and in working life. It is hence a basic requirement to:

- redefine the educational program of the kindergarten
- reshape initial teacher training
- concentrate on the learning process itself (in all areas of education)
- support self-directed learning
- strengthen creativity and self-responsibility.

2. Lifelong learning for all

Lifelong learning for all can contribute significantly to reducing or avoiding exclusion. For unskilled or semi-skilled adults the participation in continuing education is crucial. Staff in a modern work environment must be able to adapt to new production technologies and processes, as well as management techniques, which requires both vocational and social skills. Access to continuing training increases individual choices. The Federal Report on Continuing Education, 2000, confirms that participation in continuing education depends on the individual level of educational and vocational background. In 1997 48% of people with an academic background took part in vocational training but only 9% of people without initial vocational training. Measures need to be developed to provide wider access and to break down individual learning barriers that have developed from negative learning experiences

in the past. It cannot be tolerated that 10% of the German youth and almost 40% of the young people with other nationalities are without a profession. This signals a most dramatic situation when employment opportunities for the semi-skilled and unskilled are in decline.

Therefore a number of requirements have to be put forth in order to bridge skills gaps such as:

- equal opportunity human resource management
- better relation of learning and working time to match personal needs
- building on competence acquired through non-formal learning
- increase of informal learning opportunities
- modularization of learning unit

Recommendations for educational reform will have to include the experience gained from pilot projects. It is from examples of best practice that policy makers can learn successful strategies for educational and vocational measures.

3. Flexibility of the system

A key element for an implementation process is the request for a more flexible system, which allows for more flexible pathways for the individual learner. New forms of co-operation and networks including work life and community life are needed to enhance the effectiveness of the system and to promote learning.

Reform needs to touch the following aspects:

- Continuing education provision needs to be specifically targeted and has to build on initial education and training phases. It must be directed towards subject orientation and include practical experience of the participants.
- A number of questions need to be raised concerning the relation of learning and working time as the introduction of flexible arrangements is crucial for individual career opportunities, especially for target groups such as women re-entering the workforce.
- The development of a systematic approach for accreditation and recognition of skills and competencies acquired at the workplace or outside as a strong incentive for an individualized learning process.

- Modularization can be a significant means for achieving more flexibility between the areas of education. It can motivate learners to get additional qualifications (see above).

4. Learner-oriented approach to educational provision

Individual citizens taking over responsibility for the learning process will increasingly ask for programs tailored to their needs.

Current proposals in the Education Forum in this field include:

- Integration of general, political, cultural and vocational education to promote a more comprehensive objective which focuses on employability *and* development as active and responsible citizens.
- Offering new 'learning arrangements' by including the social and economic environment and combining cognitive and social learning.
- Further development of virtual learning and training – using ICT (information and communication technology) as delivery tool.
- Development of practices to provide general ICT literacy.
- Emphasis on the role of the universities as providers of continuing education and partners in regional development.

5. Media competence

ICT-based learning offers great potential for innovation in teaching and learning. These new ways of learning cannot fully dominate educational concepts though. It is the combination of self-directed learning, new technologies and learning in a stimulating learning environment that will lead to successful results. Virtual universities, distance-education, multi-media learning are about to revolutionize not only learning institutions but also learning concepts and learning styles as well as influencing the role of the educator. Information technology skills are key skills for achieving success in the information society. New technologies would at the same time reinforce the learning divide unless facilities are created to foster access. The urge for greater emphasis on mathematics and numeracy skills, the sciences and computer science is paralleled by the demand for better infrastructure, better programs and teacher training and qualification, as well as for more capacity for qualified counselling and guidance.

The potential of information technology skills can be realized if linked with so-called soft skills such as communication skills or self-responsibility and creativity, and if linked to the various subjects instead of being taught separately.

Conclusions

Further work is needed to develop operational policies and to ensure their implementation. The Education Forum has put emphasis on lifelong learning as a basic principle, aiming at lifelong learning becoming a reality for all citizens. It is an encouraging approach and it is now necessary to build on this initiative. To put lifelong learning into practice in Germany includes demands for the development of a culture of learning and to reach this goal the major tasks will be the following:

By changing objectives, contents and methods of education new attitudes need to be developed, new talents must be mobilized, new skills for the public and private sectors are needed, and participatory practices and mechanisms need to be identified and implemented.

Special emphasis needs to be put on the education and training of teachers in all educational areas. Teachers need to become facilitators or moderators of the learning process, placing individuals and their needs at the center of attention, being supportive to the autonomy of their learners and to a new teaching and learning culture acknowledging learning outside institutional contexts.

Lifelong learning makes continuing education more important and demands a wider variety of continuing education provision. Continuing education institutions including universities should take up this task.

Implementation of a basic principle like lifelong learning requires new ways of financing and the development of incentive measures (e.g. building individual learning accounts, the right to go on sabbatical leave, tax relief for payment of continuing education, etc.), and the involvement of state, local, regional authorities, the social partners, enterprises and the individuals themselves.

Even without illusions about the effort required to put this into practice it must be admitted that these are formidable tasks, which ask for the conviction of the people inside and outside the educational environment to share the vision and the support of the action to be taken.

A wide, motivated and operational partnership is needed. The implementation of a principle can only be successful if it is supported by a wide public debate.

It is only if the importance of lifelong learning for the future of the individual as for the society is publicly perceived and understood that educational change may happen. It has to be added, however, that lifelong learning is not only the responsibility of the educational policy-makers, but also of their colleagues focusing on economy, labor, social affairs and finance.

The Education Forum will have another year to define and to articulate the actions the members propose to initiate. The success will largely depend on the co-operation with other political branches as well as on the commitment of all players.

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The Islamic roots of lifelong learning culture: how to make use of them in creating an inclusive learning environment

Nadia Gamal El-Din

Nowadays the world is witnessing great sequence changes that affect the surrounding environment. These rapid changes have made the world different not only for man but also for societies. These imposed changes on contemporary societies, regardless of their standards of progress, forced them to try ensuring education for everybody, whether young or old, male or female, in the urban or rural areas. Thus lifelong learning has become essential. Moreover recent revolutions in communications, informatics and technology have led to great variations in learning environments in addition to the rapid changes throughout the whole world. Speaking of such changes and variations leads us to think of adults, those who are in need of lifelong learning, more than anybody else and more than before, to enable them to cope and deal with the changing environment around them and also with the changes happening to them. Many educationalists have been able to identify the factors that affect the learning environment. Therefore, adult educators have been recognizing that factors in the learning environment related to psychological, social and cultural conditions exert a powerful influence on the growth of learners.

The previously mentioned facts make us think of the future of humanity and its characteristics. Meditating on the past could support us with wisdom and offer some ideas regarding how to create and support an inclusive learning environment, especially for adults. The aim being to give them the ability to face the changing life around them safely, and ensure them a continuous growth without causing any problems whether for themselves or for their surroundings. Examining our cultural roots or beliefs, which feature the prevailing characteristics of our society, becomes necessary to determine how to make use of such beliefs and values in encouraging individuals for a more continuous learning, and in building bridges between our cultural roots or beliefs and the surrounding learning environment. This of course can establish a relation between the past and the present time, and could also ensure stability and consistency of man's life, as lifelong learning could protect him and could enable him to face confidently the ever-changing reality. Hence lifelong learning becomes an essential life element.

In spite of globalization, its related circumstances and current cultural diversity, the cultural identity of each society should be preserved, emphasized and protected. Accordingly, I have chosen the Islamic nation or rather the Arab World, and in particular Egypt, as a model to discuss how to make use of the Islamic culture prevailing in that part of the world. The purpose is to identify the basis, values and moral principles of Islam, which show and prove the importance of adult education and lifelong learning. Perhaps through doing so we can add to the contemporary adult education literature, show the importance of utilizing the affective domains of human culture to support lifelong learning and emphasize the importance of the moral and human domains deep in the prevailing Islamic culture. Such domains can help in making the current learning environment more appropriate and inclusive for the individual who is facing in these times endless difficulties and challenges.

Islam and education

My speech will be focused on the Islamic religion, which should not be considered only as a set of rituals, creeds and prayers but as a whole way of life. The rise of Islam, which was spread first in the Arab Island fourteen centuries ago, led to evident political, economic and social changes in all the areas in which it was spread; Asia, Africa, and some parts of Europe. In the 'Quraan' - Moslems' Holy Book - we find the statement: 'Let there be no compulsion in religion; truth stands out clear for itself you cannot mistake it.' The statement that freedom of choice and belief is a basic principle in Islam, which forbids forcing people to believe in God: 'If it had been the lord's will, they would all have believed, all those who are on earth. Wilt thou compel mankind to believe against their will!!' Therefore through respecting the individual's will and freedom and through assuring the principles of choice, responsibility and sanction, Islam helped in establishing a great significant culture wherever it was spread.

It is elementary then to say that the main change, which occurred and was followed by other large changes in the Islamic nation, hit the adults first. They were the first to believe in the Islamic religion, which was mainly directed to them before the young people or the children. Therefore the following paragraphs will show some evidence of the statements of the Holy Quraan and Prophet Mohamed's sayings, *peace be upon him*, that proves and clarifies certain points of view I would like to refer to in the following pages.

Prophet Mohamed spread the Islamic teachings personally, he learnt the Holy Quraan and taught it to others. He got the Islamic message or teachings when he was forty years old; as an adult. So he said: 'I was sent by God to be your tutor.' Therefore, the teacher in Islamic culture enjoys a unique status especially the adult educator. The Prophet also said: 'The best one of you is he who learns the Islamic

Religion and teachings and then teach them to others.’ So the adult learners then used to learn the teachings of the new religion to teach them first to the members of their families. In the Islamic culture, the family is the center of the individual’s interest as he should look after it. Moreover, learning within the family and in the house is natural and is considered a part of life itself. Therefore, the Prophet’s wife was the first person whom he taught the rituals and teachings of Islam. In Islamic religion there is no gender disparity; both men and women must learn the Islamic teachings and rituals.

A learning and teaching Islamic society

The researcher in Islamic education would soon find out the unique status of learning in Islamic societies. That is because of Prophet Mohamed’s saying: ‘Seeking education is a must for each Moslem.’ In Islam there is no gender disparity regarding learning and getting education. Therefore the Prophet said: ‘All people must learn, no difference in that between men and women, young people and adults.’ In the Islamic society also the individual who seeks learning and becomes educated is given a unique social status and is considered distinguished for using his mental abilities in getting education, which makes him different and distinguished among others. The Islamic religion encourages all people to be educated; the first verses or teachings received by Prophet Mohamed imply an order for him, and of course for all the rest of human beings as Quraan was meant to be sent for all humans to read and learn. ‘Read and learn in the name of thy lord who created you.’ This means that God encourages Man to learn through reading as those who learn become much better and totally different than those who do not get education. Moreover the Holy Quraan urges Man to acquire continuous education as long as he lives: ‘You should pray to God to help you increase your knowledge.’

The concept of learning and being educated in the Islamic religion is a comprehensive one, it includes the development of skills, behavior and attitudes. It is essential for being considered as a responsible person and for getting a job. The Islamic religion also urges people to seek knowledge and to learn from birth to death because education and work are considered important things that make a person unique or distinguished among others. Prophet Mohamed recommended that the Moslem should seek education and strive for it continuously from birth to death especially because he becomes distinguished from his fellow men with the level of education he gets to and how tightly he sticks to moral ethics and principles he acquires from that education. Therefore, in Islamic religion Man’s behavior and deeds should be consistent with his knowledge and beliefs and there should be a harmony too between them.

During the early Islamic ages education was available to all people and it was delivered anywhere. Moreover participating in educating people was a dominant characteristic of almost all the institutions of the society. The Mosque – the worship place - was the place where prophet Mohamed met people, invited them to believe in Islam and taught them its new principles. Managing the people's affairs used to be done in the mosque too which was always open for them. Education was delivered through holding 'study meetings' in which people gathered in circles around the instructor. Such circles were organized and grew larger and more in number without interference from the authorities and without money allocations from the state. The topics for such meetings were not unified as they differed according to the different instructors and their different specialties and fields of knowledge.

Accordingly, this suited better the different standards and interest of students. In addition these meetings and learning councils did not follow one discipline and were not restricted to certain places; they were held anywhere, but for the convenience of children and young learners certain places were identified as learning places for them. Such a place was called 'the kuttab'. As for adults they could sit anywhere to discuss whatever they wanted and exchange knowledge and information. They learned from each other and taught each other. Therefore 'study circles' could be held anywhere; in public libraries, teachers' or instructors' houses, high officers' mansions and even in public markets, in addition of course to the mosques as was mentioned before. That way adults could gather anywhere to discuss and learn any topic identified by them or by their famous teacher whom 'the study circle' was named after. This particularly happened in the great famous mosques of the Islamic world which many education historians consider the first atom of what later became the famous universities of the middle ages.

Combination of general knowledge and specific specializations, also flexibility of standards and contents, were the main characteristics of Islamic civilization. Considering the traditional way of life of the Islamic society at the rise of Islam, we can emphasize that discussions in 'study circles' were definitely related to religious subjects and topics. Later those fields of study extended to include also literary arts, linguistics and even philosophy, which flourished extensively during the great ages of the Islamic civilization. Consequently, through time some of the study circles were only allowed for advanced students who were interested in acquiring higher standards of philosophical, chemical, medical or any other specific field of study or knowledge. Other circles were assigned for the public, interested in learning and getting more education and general knowledge. The self-motivated adult learner was able to move between his job and the study circles in a recurrent way; either he divides his time between work and study through the day or he shifted from 'working just for sometime' to 'learning in other times' during the year. Adult learners learn in that way because the learning resources and institutions, varying in standards and content, were always available for everyone anywhere and anytime.

In the Islamic thought getting to maturity or being an adult implies the ability to self-learn. This applies to learning by both men and women with no difference. Moreover, Islam urges the individual to acquire education or knowledge from whoever can deliver it, regardless of his religion, nationality or location. This is because there were no restrictions, whether political or geographical, regarding seeking education. The learner is allowed to travel anywhere for learning from the distinguished scholars who can deliver good education. This is evident in the following proverb, which urges Moslems to seek education: 'Seek education and strive hard for it even if it costs you the great hardships of travelling to China.' China was considered a very far country from the Arab countries and was very hard to get to for the Moslems with their traditional old ways of travelling. For ages it was also natural and regular for adult learners to travel between the famous mosques of the many Islamic cities that were well known for delivering good education such as Cairo, Damascus and Baghdad. They did so to acquire knowledge from the famous scholars, philosophers, scientists etc. Travelling to seek education was one of the distinctive characteristics of educational life in the great ages of the Islamic civilization.

Then what?!

Examining and searching for the deep roots of adult education in the Islamic literature, and recounting their main characteristics, does not mean that we are calling for going back to the learning customs and habits of the early traditional Islamic society, which belonged to a different age. It means that we can make good use of our cultural heritage in widening the scope of adult education and in considering well and supporting the needs and interests of the Moslem learners. Consequently, we can make good use of the Islamic religious motivation for seeking and acquiring life long education regardless of gender, age or socio-economic status. In particular the idea that acquiring knowledge continuously raises the socio-economic status of individuals and benefits them whether in their lifetime or in the other world after death according to the Islamic beliefs.

For Islamic teachings praise lifelong learners and also teachers who are considered semi-prophets (great sages) for learning continuously through their lifetime, and also for teaching people what is good for their life and after their death in their other life. So they are expected to be rewarded graciously by God both on earth and in their other life after death. In this way our cultural, religious and spiritual heritage can be more valuable than only depending on just external motives or being just satisfied with praising the economic and technological changes as the guaranteed fruits of continuous and lifelong learning. So this is not a call for withdrawing from the present to the past and sticking to its beliefs and principles. On

the contrary, this is a call for standing for challenging current circumstances through making good use of the following:

Principles of Islamic religion as a great panel calling for lifelong education

All the points previously mentioned clearly indicate that utilizing Islamic motivation for continuous education can support exclusively adult education in the Arab and Islamic countries. This means that we can benefit from considering the principles of the Islamic religion which represent the basis for lifelong education especially in the light of calling for acquiring it from birth to death. This helps in motivating man for developing and increasing his knowledge and skills particularly when this is considered as a way of worshipping God. Thus self-directed learning and seeking education from all available sources can be strongly supported. Consequently, this can help the learner in facing the ever changing world around him and can also give him the chance for getting a better new job. Moreover it can encourage him to make good use of his leisure time through learning new techniques for doing so.

The world has recently become a small village in the light of the on-going technological revolution and the growth of knowledge-based economy. This has caused the alienation of man from reality and pushed him away from his original culture. Therefore emphasizing the cultural domain which represents the main spiritual features of the Islamic religion, encouraging lifelong education, can actually support the exerted efforts regarding preserving the cultural diversity of our contemporary world. That diversity should be defended.

Learning from birth to death for all

In addition, working with both the latent values of our rich religious heritage and the contemporary acknowledged values and principles of lifelong education can help in establishing a unique paradigm or model of lifelong education policies. This can establish a strong relationship between the old spiritual ideal principles, which are still being followed by Moslems and the modern current ones, which are imposed on man, life and the whole world. This can result in consistency and supporting continuity of learning especially in the light of what was mentioned before concerning seeking education as a duty from birth to death.

So a strategic policy should be developed or set to combine the basic traits of the Islamic cultural heritage and the important traits and moral principles of the contemporary human culture. It is also necessary to achieve harmony between the two of them. For example, we can benefit from the recent great development of information and communication technology (ICT) through using it as one of the

instruments and tools of lifelong education. The Islamic and Arab countries share the same spiritual basis, moral principles and values related to different life aspects. So there is a need for effective communication legislation among the Arab and Islamic countries to guarantee the freedom of participation in handling, sending and receiving information. There is a need for providing the rural and Bedouin areas with the modern technology devices and tools as they are both marginalized, unlike the cities which have information super highway services. Fortunately, ICTs are no longer highly expensive as they were in the past years.

So there is a pressing need for eradication of illiteracy and to terminate also the sources of youngsters' illiteracy. We should work hard to stop students' dropouts and to stop them becoming illiterate once again when they leave school. It is worth mentioning here that in the light of the interest of the Egyptian Ministry of Education in emphasizing the importance of delivering 'lifelong education for all', many ministerial decrees were issued concerning the addition of some topics of ICTs to the curricula of the different educational stages. Schools of the different stages, starting from the primary level, were equipped with computer labs, Internet telephone lines and satellite communication devices (Nile Site) so that both teachers and students can receive broadcasting from the educational channels. Moreover, some arrangements are being made to provide schools with electronic libraries that contain CDs, E-mail and multi-media devices and tools.

In addition, other Ministerial decrees were issued to support and help realize the important and significant idea of making use of school as a learning organization for both youngsters and adults. Therefore, those decrees allow more partnerships between the school board and parents through enhancing the parent-teacher council's role in establishing a good relationship between school staff and parents. This can strengthen the ties between the young students and the adults who participate in solving their problems. It can also strengthen the relation between the school and its surrounding environment. Moreover, it allows using the society resources to the utmost for the benefit of both youngsters and adults. This could also remove the barriers between teachers and parents with the result of giving them all peace.

In addition, in Egypt nowadays businessmen and non-governmental organizations (NGOs) also participate in equipping schools with computer labs and other equipment that is needed, which can help in delivering effective teaching. In return, the school can help in providing parents with the educational programs they need and in teaching them new skills required for full participation in community activities. This emphasizes the saying: 'Seeking education is a duty and a must for all.'

If we examine the Islamic thoughts and legacy of the great Islamic ages, we will find out that Moslems were skillful in seeking education and knowledge for the intrinsic value of that knowledge. Also, because they wanted always to learn continuously especially because of the many benefits one gets from learning and being educated, such as improving the morals and ethics and bettering the social status of the individual. Therefore, there was the call for every one to seek education in different educational institutions; mosques, public libraries, bookshops and study circles in many different places.

It is important to state here that the media can play an important role in emphasizing such an important Islamic attitude, regarding seeking education for the value of knowledge in itself and for the fun one feels through learning. In addition, the media can emphasize the value and importance of education as an investment and as a means for human resources development. Moreover, the media should also emphasize the importance of adult lifelong learning as an area that can contribute to the comprehensive and cultural development of society, even if people are only learning with the purpose of spending their leisure time and having fun in being taught new knowledge and skills. Thus Islamic religion emphasizes that education helps man to play his different roles in life efficiently. So it calls for man's continuous education either to enable him to acquire skills necessary for the labor market or for enjoying his lifetime.

It is elementary to say that learning and especially lifelong learning should develop the capacity of individuals for living a better life. Through their long lifetime, individuals need to acquire many new skills and experiences that can help them adjust to the internal and external changes affecting them. So there is a pressing need, especially nowadays, for providing opportunities to ensure a lifelong education for all. There is a need also to provide people with good efficient educational programs through the media, which can help them to grow continuously and to deal efficiently with the ever-changing reality.

Finally, the Islamic nation and the whole world can benefit from and make a good use of human heritage regarding seeking lifelong education for changing the surrounding environment into a more friendly and inclusive one. This could establish more ties between the internal religious beliefs and the surrounding external reality. So the human cultural heritage can also be made use of in showing and emphasizing the importance of lifelong education for complete faith, and for stressing the importance of developing continuously the capacities of individuals, for facing the change from traditional industrial society to the emerging knowledge society. Moreover, lifelong education can ensure the development of an integrated culture and an easier, safer and more comfortable life for individuals.

Towards the creation of lifelong learning culture in Africa

T.O. Fasokun

Introduction

The need to create a lifelong learning culture based on African ways of life cannot be over emphasized. Africans cherish their cultures, traditions, religions, languages, values, beliefs, customs, ideas, folkways, mores, laws, taboos, music, riddles, legends, myths and proverbs to mention just a few. It is therefore pertinent that African countries should be assisted to undertake comprehensive efforts to reconceive and restructure their educational systems consistent with the ways of life described above as frameworks for lifelong learning.

The African culture, for instance, could be used to promote lifelong learning through its music (singing, drumming, playing instruments etc). Music fulfils emotional as well as aesthetic needs of the people. Music is present in every culture but may be different in its form, language or expression from culture to culture. It is however, no doubt, a human behaviour, experienced, enjoyed, perceived and performed by mankind irrespective of age, race, creed or religion.

In African traditional societies, music could be used to transmit messages, ideas and emotion. It could also be used for maintaining law and order and for conveying history. The content, lyrics, form, mood, style etc. are very useful in transmitting information from one generation to another. Indigenous or traditional education also presents a truly lifelong process of learning. It covers the entire lifespan of the individual. Indeed it is from cradle to grave or from womb to tomb. It is geared towards meeting the learning needs of all the members of the society.

Through indigenous education, informal education that implies spontaneous learning by individuals takes place as they interact with their social and physical environment. The indigenous education system has been used in many parts of Africa to foster physical, intellectual, cultural, economic and political developments. It has been used for the development of character, respect for elders and peers and for community participation. What is now left is the need to bridge the gap between indigenous and western education systems in Africa. For instance, the apprenticeship system should have a place in general education and the craftsmen in different trades could be drawn into the formal educational system.

For education to reveal life and become lifelong learning in Africa, it must follow the indigenous pattern of education, which is deeply rooted in the society's natural and human environment, and which essentially follows the rhythm of daily and seasonal life of the individual, the family and the community at large.

Aims of lifelong learning in Africa

Lifelong education is seen in its inclusive sense and hence it has the following aims:

- to provide programmes/initiatives for early childhood care and socialization
- to provide functional literacy, numeracy and life skill programmes as well as ethical, moral and civic values needed for laying a solid foundation for lifelong learning
- to orient it around basic needs
- to promote democratic culture in the people
- to serve the interest of the underprivileged population
- to sensitise people, especially adults, towards social and political transformation
- to improve the living conditions of the people
- to enlighten society about the changes taking place in economic and social life
- to provide further education and in-service training to the people in order to improve their basic knowledge and skills
- to provide Africans with the necessary aesthetic, cultural and vocational education
- to provide employment opportunities to the people
- to encourage the people to be self-reliant
- to mobilise people for untapped resources at regional and local levels
- to ensure better maintenance of investments in economic infrastructure
- to develop in the entire citizenry a strong consciousness of education and a strong commitment to its vigorous promotion
- to reduce drastically the incidence of dropout from the formal school system

- to articulate the formal, the non-formal and the informal approaches to education, and to devise mechanisms for the awakening of all round development of the human potential
- to lay the foundation for lifelong learning through the inculcation of appropriate learning-to-learn, self awareness citizenship and life skills
- to help the people ask questions about life, purpose, justification, truth, value, reality of existence etc
- to assist the people to delve into the past in order to establish relevant precedents and historical antecedents which sharpen perceptions in order to brighten the future
- to live a decent life and earn a living under decent conditions
- to restore to the individual learner his full autonomy and the voluntariness of deciding for himself when, where, how and what he wishes to learn

Programmes for lifelong learning

A fundamental philosophy of African education is the inculcation of self-reliance. In essence, there is the need to specify the knowledge and skills that the people at any particular stage must acquire towards becoming self-reliant. They must acquire competencies within the specific hierarchy of cognitive behaviour (knowledge, comprehension, application, analysis, synthesis and evaluation). In addition, they must acquire competencies within the hierarchy of affective behaviours (receiving, responding, valuing, organization and characterization). They should also be exposed to the hierarchy of psychomotor behaviours (observing, perceiving, practicing, adapting and originating). Learning should be characterized by personal experience. It is something experienced and undergone by the individual as opposed to something acquired or given by someone else. No one can learn for another person.

Based on the foregoing the following programmes of lifelong learning are relevant for Africa:

different forms of literacy, numeracy and life skill

- primary education for adults
- population education
- law and statutory regulations

- new technologies, data processing and communication techniques
- political, economic, social and cultural democracies
- maintenance of sustainable development
- overcoming ethnic prejudices and multi-cultural openness
- women, work and child care
- health education and health promotion
- environmental education
- media, new information and communication technologies
- economics of adult education
- principles of market economy and management
- further education for different categories of completers of the formal education system
- in-service and-on-the-job training for workers
- general vocational, aesthetic, cultural and civic education
- remedial education for those young people who prematurely dropped out the formal school system
- adults and the changing world of work
- continuing education
- distance education/correspondence education
- prison education
- extension education
- apprenticeship education
- human rights education

Tackling the problems facing the African continent

Accordingly, anybody wishing to embrace lifelong learning culture must start with the consideration of the persistent everyday concerns and contemporary experiences of

the learners. These are then related to appropriate situations relevant to the background and maturity of the learners.

To achieve lifelong learning, some of the problems in Africa that threaten human survival today must be tackled. These include:

- shortage of resources
- poor health facilities
- poverty and illiteracy
- unemployment
- indifference and laxity
- deviant behaviour
- crime and juvenile delinquency
- mental disorder
- drug use
- alcoholism
- poor sexual behaviour
- HIV/Aids
- lack of effective medium of communication
- mother tongue disparity
- debt burden
- disparities in public enlightenment and social mobilization
- geographical disparity
- sociological disparity
- gender disparity
- non-availability of reliable data
- generational disparity
- poor monitoring and evaluation mechanisms

- political instability
- inadequate planning
- poor funding
- poor management leading to over-centralisation
- poor consultative process
- ecological and environmental problems

Built-in sustainability features of lifelong learning

Many African countries have built-in sustainability features that could enhance the creation of lifelong learning culture in Africa. The following are the sustainability criteria that could be effectively utilised:

There is a strong social base for embarking on lifelong learning culture in Africa. This is because education is a strongly felt social need. The African society is anxious for change and improvement. This is definitely a welcome social climate for the take-off of an efficient and effective lifelong learning culture.

The political will is high. This is manifested in the policy pronouncements by various governments in improved allocation to education in the national budgets.

The popular will of the people regarding the need to be educated, as evidenced in policy dialogues, social mobilization, advocacy etc. could be utilized in ensuring lifelong learning culture among the people.

Many people in Africa are now participating in and owning several institutions for promoting lifelong learning culture. This local-level involvement should be seen as a welcome development.

There is the need to make adequate funding a prime goal. A variety of sources of funding could be tapped and ways of using the funds judiciously should be vigorously pursued.

There is the need for effective management of the lifelong learning programme of activities. Devolution of powers should be respected and there is the need for complete decentralization of activities. Committees should be set up in different African regions and sub-regions in various areas. There should be a built in management capacity building up to the grassroot level.

Appropriate infrastructures and facilities for learning should be provided. They have to be of the appropriate quantity, size and quality to ensure minimum standards of promoting lifelong learning culture.

Mobilisation efforts will as much as possible be undertaken by the local communities (their rulers, traditional opinion moulders, religious leaders, respected citizens, traditional institutions, parents-teachers associations, and the ordinary persons in very ordinary settings and conditions of life).

The modern electronic and print media will be used to the fullest extent, while strenuous efforts will be made to use all forms of traditional media.

Since Africans believe in the indigenous education system, membership of groups such as nuclear and extended family, lineage clan, age-set or age groups could determine what will be learnt.

Conclusion

Lifelong education should assist people to be fully aware of their environment, understand it, interact with it meaningfully, modify it if necessary in line with co-survival morality, and utilize it for development. To develop the culture of lifelong learning, African countries must guarantee the universal right to lifelong learning and that it has a secure place in every education plan and national budget. There is the need to promote reading habits among neoliterates in Africa. African people should inculcate the habit of reading for entertainment or pleasure. Reading should not be confined only to reading print. It should extend to reading pictures, lips, body language and also the screen.

Efforts should be made to remove social and cultural differences between women and men. Women should receive equality with men with regard to opportunities to realize their ambitions. Society should be encouraged to accept lifelong learning culture. This should be adapted to local conditions to ensure that the goals of lifelong education are directed towards autonomy, equity and survival values. No sacrifice should be considered too great in ensuring that lifelong learning culture is efficiently and effectively sustained in the continent of Africa.

A youth contribution to lifelong learning

Nina Hansen and Cornelius Brökelmann

What does lifelong learning mean to AIESEC (Association Internationale des Etudiants en Sciences Economiques et Commerciales)?

Where we dare to believe in the optimism of youth and support others in building up their self-consciousness

Where we have trust in our dreams and the infinity of our minds

Where we challenge the boxes we are thinking in, dare to face the chaos and are aware of the network we are a part of

Where we free ourselves and allow us to be children again.

Where we will be able to truly listen...

...we will be able to learn.

Now in the 52nd year since its foundation, AIESEC's goals are still wholly relevant today: namely to broaden the horizon of young people, with the aim of helping people in the world to live more peacefully together. Through its various exchange programmes, AIESEC seeks to give students practical learning experience to back up their theoretical academic training. AIESEC also regularly organizes seminars and projects on issues of global importance such as 'Corporate Social Responsibility', 'Learning' or 'Entrepreneurship' in over 80 other member countries.

In participating actively in the organisation AIESEC, students open up new perspectives and opportunities to gather a wide range of information and to come into contact with many different kinds of people. Through open-minded contact with others within the framework of international teamwork, or through everyday living in different cultures, our aim is to make a concrete contribution to the understanding between cultures.

AIESEC gives students special learning experiences in an intercultural context. Thus, students do not only change their attitudes and stereotypes about different cultures, about gender etc. They especially rethink – and possibly reaffirm, of course – their values and their vision for life. It is in this way that AIESEC gives the

opportunity to 'build bricks' in one's personal development for a lifelong learning process towards responsible citizenship. Naturally, no one stays in a students' association for his or her whole life; yet it is the attitude that comes with engaging in AIESEC that stays for a lifetime.

How to analyse what youth representatives suggest?

Students from all over the world discussed the topic of the international round table at an AIESEC seminar organised at the World Exposition, EXPO 2000, in September 2000. This paper tries to structure and present their main ideas. Of course, many more points were made than are included here. First of all, I will describe some chosen scenarios to analyse the lack of lifelong learning concepts in society. Afterwards I will present and discuss strategies and concepts for lifelong learning in the analysed scenarios. In the spirit of the philosophy of AIESEC, our members want to contribute to the development of our societies. That's why the issue of fostering partnership and co-operation with many different stakeholders is highly relevant for the work within the association.

The lack of lifelong learning in society

There are four examples to describe the lack of lifelong learning in our society. They were the most discussed points in an international debate within AIESEC on the topic of the international round table.

Lack of learning to take over responsibility

Less and less people are willing to take over responsibility for other people. Many causes elucidate this phenomenon. The erosion of human, moral, cultural and ethical values influence life in our society. Moreover, generations within and outside families are isolated from each other. Furthermore, the rate of violent crimes, terrorism and xenophobia has increased. Finally individual and global competition has risen too during recent decades.

Lack of attention to current issues in school

Teachers in particular have an important role at the most influential time of life – apart from parents, family and friends. On the one hand they often just teach and do not support the individual learning process of their students. On the other hand – the more striking point – they are often not open-minded enough to discuss current

political and social issues. They furthermore fail to talk about intra-group conflicts as well.

Lack of important topics in school education

These include the meaning of lifelong learning for individuals to cope with important life themes/ events. The education in school does not prepare students for life. Many students do not feel well prepared enough to handle special themes and events in their lives. Topics outside the academic curriculum should gain more and more importance.

Lack of partnership and co-operation between generations and cultures

Learning institutions like kindergarten and schools are separated from each other. There are different environments where people learn in life. We generally do not learn from each other in an intergenerational context nor in an intercultural context. Our students felt that they live in a culture that does not learn from the potential of the different groups in societies to solve problems, to receive and give advice, to use synergies etc.

Strategies and concepts that support a process of life-long learning - a young people's perspective

This short discussion is intended to give an overview of some ideas of strategies and concepts some young people think that they can profit from in learning throughout life.

How to create responsible citizenship?

Students would appreciate more role models that show what exactly civic responsibility means. Youth in industrialised countries live in an affluent society and youth in developing countries often have to fight poverty. These two extremes describe different living circumstances. But they all need to have idols who show them possibilities of how to behave, how to solve problems in a responsible manner, or even to show them how to believe in oneself. Moreover students would endorse, for example, more people working voluntarily in and for our societies, more people taking over responsibility – not only for themselves - individuals they can watch to find their own ways. Especially people in 'public life' like politicians, actors etc., and older generations should be more aware of their role in society in this respect. They

have to keep in mind that people learn a lot through processes of imitation. This point was discussed at length; it was identified that it is an enormous lack not to learn throughout life by taking over responsibility for yourself and your society.

How to prepare teachers to address current topics?

Students suggest more networks (local, regional, national and international) for teachers to talk about their experiences. Moreover they identified a lack of lifelong learning support (e.g. continuation classes, training courses) for teachers themselves to support the learning-process of their students. Academic education aside, teachers should learn more about social competence in order to face and solve intra- and inter-group conflicts.

What issues must be included in school education to prepare youth for life?

The school system must deal with topics like future planing (e.g. application for a job, how to live with the fear of not being able to cover one's livelihood, family matters) and with issues that influence our life (e.g. death, illness/disease). People who are or have been afflicted with 'life changing issues' should be invited to discuss certain problems or fears. Another important point for the students was the acceptance and promotion of a 'culture of failure': where everybody has the chance to learn from one's own as well as each other's experiences, mistakes included. Students should be encouraged in school to have an individual opinion about the world and about distinct topics within it. Therefore they should always be encouraged to question pre-existing norms, social structures and power politics. Furthermore they should learn to discuss their individual opinion with others in public.

How to build up partnership and co-operation between generations and cultures?

The concept of lifelong learning incorporates the idea of partnership and co-operation. It must be focused on 'learning from each other'. For example, creating a society that fosters: open-mindedness and civic responsibility; institutions and (loose) networks that bring together different generations, genders and cultures; conferences discussing social topics relevant to everybody; exchange visits to fight against xenophobia and violence; bringing together policy, industry, business and NGO's, creating a society that regards mistakes not as mere failure but also as a chance for people to learn from each other.

Technological change in Asia: women's need of life-long learning

Govind Kelkar and Dev Nathan

In Asia as a whole and particularly in East and Southeast Asia, women have entered the industrial labour force on a larger scale and faster than in any other developing region of the world (Horton 1996). This was part of the process of globalization, as export markets provided a scope for developing light industry far beyond what the national, internal markets did. Within the labour-intensive export oriented industries the employment of young women (the classic *nimble fingers* case) rose much faster than that of men (Lim, 1985 and Banerjee, 1991). In Bangladesh now women make up fully 90 percent of the more than 500,000 workers in the export-oriented garments industry. But, in the older import-substitution and capital and technology-intensive industries men were employed in a much higher proportion than women (ESCAP, 1987: 73).

Few would disagree with Castells (1999) that social changes are just as dramatic as economic and technological transformation. Interestingly, in this regard, patriarchy has come under attack; it has become a contested domain, rather than a sphere of cultural reproduction, leading to fundamental redefinitions of gender relations, family and sexuality. Seen in this context, our primary question is: how are women affecting and have been affected by these wide-ranging changes of globalization and technological advances? How do we understand the ongoing contradiction of development policy – being efficient and productive as well as pursuing social, gender equity and sustainable human development?

A comprehensive study of labour force statistics in six countries (Japan, South Korea, Thailand, Malaysia, Indonesia and India) shows that women's participation in the labour force exhibits a number of characteristic patterns (Horton, 1996). The 'double-peaked' or M-shaped labour supply curve where women participate prior to marriage and child bearing and then return to the labour force when the children are older is seen in Japan and South Korea (ibid.). The 'single peaked' pattern of early participation without a later return to the labour force is prevalent in Malaysia. While the 'plateau' (or inverted U) is more prevalent in rural areas where women do not interrupt their labour force participation for child bearing. While Thailand has a 'high plateau', with consistently high labour force participation rates, India and Indonesia have lower plateau patterns. China too has a high plateau participation rate.

Over time (the sixties to the eighties) the labour force participation rates do show much change (p.10) with consistent upward shifts. Participation rates have gone up for older women; while in Japan and South Korea there is evidence of an increase in the middle, meaning that the trough between the two peaks is being filled in by women working during the middle years. For India and Indonesia there is not much of an increase in labour force participation rates. The growth in labour force participation is likely to be related to the overall growth of the economy and also its rate of participation (via exports) in the global economy.

All the countries studied exhibit shifts out of agriculture into manufacturing, commerce and services. Thailand and Malaysia have a higher share of women workers in agriculture, while the Philippines tends to have the lowest share of women in agriculture and the highest in manufacturing and services (p.20).

Besides the above, China has a consistently high plateau of women's urban employment (Zhou Meihe and Guo Haiyan, 1995: 11). The only oddity in China's case is the rapid fall in employment of women after the age of 50. Even Japan has a higher proportion of women above 50 employed than China. This is due to what may be called *the grand-mother bar* to employment. Chinese women usually retire at 55 or even 50, many years earlier than Chinese men. In China it is still the mother-in-law's responsibility to look after the grandchild after the child has been weaned and till s/he goes to kindergarten. While this enables young women to remain in the labour force even after bearing a child, it leads to an early retirement for older women.

What is important is that there has been a shift of women workers from the status of unpaid family workers to that of employees, though in the case of India it is to that of casual rather than regular employees (Horton, 1996: 26). Did this movement of women as employees into light industry or commerce bring benefits to women concerned? Did it weaken the grip of patriarchy, or merely function within the confines of the old familial relations?

On the first question, it must be pointed out that the new export industries represented the first avenue for the large-scale entry of women into industry. For young women coming from confined, rural backgrounds the introduction of modern industry and machinery certainly represented an advance. They learned new technologies and new methods of work organization, as against the craft or agricultural methods or housework they had been used to. After a while they also absorbed the changed and faster rhythms of factory production, even where the basic activity, say embroidery, was no different from that done earlier in the home. Co-operative activity, and team skills, based on a division of labour replaced home-based craft-style production.

One of the young women who was crippled in the Zhili toy factory fire in China pointed to her reasons for going to work in such a place, and the resulting changes from urban exposure. 'We had heard that working conditions in the factories were tough, but we were fascinated by the idea of exploring the colourful urban life. . . . It is difficult for girls returning from urban work to find husbands, because though they have some money, they are not as ignorant as women who stay in the village all their life and have gone no further than 200km from home. Men might find these women too clever and too independent. The women, having seen the outside world, would be more critical of traditional practices in the village, and would also have links with each other, sharing experiences and memories' (ARENA, 1995: 43-45). The young women from rural areas after they had been working for a while were indistinguishable in dress and style from urban women (Tao Chunfang, 1995: 7).

In terms of earnings, though wages were and are very low compared to, say what is earned in organized large industry, they still represented much more than what could have been earned in the stagnant rural settings from which these women came. The wages of women in Bangladesh's garment sector are at least double what they could have earned in the informal sector or in rural areas (World Bank, 1995: 73). While there was the push of rural stagnation that induced these women to seek employment, it is not as though these were indentured or otherwise bonded labourers. Thus, one must expect that they would earn more even in the low-paid garment sector than they could elsewhere.

Along with the above there is the increase in dignity that goes with being a wage-earner, often the major income provider in the family. While in family agriculture, the women's contribution would have been merely subsumed in the general household labour and not even acknowledged, given men as the owners of land. The men also would have greater control over the income from agriculture. But in the condition of women wage-earners they would have a greater prestige in the family and are also likely to have more control over how their income is spent. This is what Amartya Sen's (1990) theory of the family as a site of co-operative conflict would predict. The above-quoted World Bank study found that 57 per cent of women garment workers determined how their own wages were spent and even that their husbands contributed 1.3 to 3.7 hours to household work per day (World Bank, 1995: 73).

The young women also became more proficient in their skills and could 'take the initiative and promote the development of new technology' (Tao Chungang, 1995: 10). In the factory studied, women workers put forward 95% of suggestions to improve production. Of course, all this works to the greater profit of capital, but it also demonstrates the greater initiative of women workers after a period of adjustment.

There is no denying that the buyers from the North who buy garments from the South benefit from the low wages and earn high profits from the sale of these garments. But from the point of view of the women garment workers themselves it represents an advance over their former condition, not only in terms of the income status of their families, but also in enabling them to improve their status and position within the family. Yet it is still sweated women's labour, on the basis of which the developing countries have built their competitive positions in world trade.

Women's employment: technological change

Over the 1990s the structures of the economies of East Asia and Southeast Asia have undergone an internal transformation (something that Japan had already undergone earlier). Within the region, the economies of South Korea and the island states of Taiwan, Singapore and Hong Kong began to take on the role of exporters of capital and, along with capital, technology and lines of production, while these economies themselves moved on to more technology-intensive and capital-intensive sectors of industry and services. Partially Malaysia also moved away from the assembly of electronic goods to production of earlier micro-chips. As a rule it was expected such a move to capital-intensive, technology-intensive production would lead to more men than women being employed (ESCAP, 1987: 73).

But a recent study (Mary Brinton, et al, 1995) has highlighted some interesting differences in the role of women in the transition from light to heavy industry. Both South Korea and Taiwan in the mid-1980s had similar proportions of light to heavy industry. The labour supply situation of women had undergone similar changes: increasing age at marriage, declining child-care obligations, and increasing education. Yet by the mid-80s three major differences had emerged between the two economies: lower overall labour force participation for women in South Korea (most strikingly for young married women); lower rates of formal employment (employees working for wages or salaries); and the failure of higher human capital to lead to higher probabilities of employment in South Korea (p.1105).

There was a sharp discontinuity between pre- and post-marital work, giving 'proof of the persistence of a marriage bar in South Korea' (p.1112). Before marriage the proportion of women who are employees is very similar - 93% in Taiwan and 89% in South Korea. But after marriage while this falls to 67% in Taiwan, it drops sharply to just 30% in Korea. What South Korea has managed to institute is the M-shaped labour supply curve, made famous by the Japanese example.

What is the reason for the difference between women's participation in Taiwan and South Korea? As pointed out above there is no difference in either the labour supply conditions or in the proportions of light and capital-intensive industry in the

two economies. What is different is the manner in which capital-intensive industry is organized in the two economies. In Taiwan capital-intensive industry is also carried on in small-scale units, dispersed through the island. On the other hand, in South Korea capital-intensive industry is concentrated in large units, owned by the conglomerates (*chaebol*) and concentrated in the big cities. This was a consequence of government-subsidized loans or cheap foreign loans to the *chaebol*, which led them to greater capital intensity. In Taiwan, on the other hand, the absence of such cheap loans did not shift to capital-using methods, which would be on a large-scale, and instead promoted labour-using methods of small- and medium-scale production - the cottage electronics for which Taiwan is famous.

The above example brings up a number of issues that are important to the future of women's employment in Asian industry. The first is the connection between women's continued responsibility for housework and industrial employment. The second is the connection between technology creation and the relative supply of different factors of production in the country of origin.

While Brinton et al. (1995: 1108) conclude that the different women's labour developments in Taiwan and South Korea are 'consistent with an export-led growth explanation that emphasises the capital intensity of firms', this has to be seen in conjunction with other aspects of a patriarchal division of labour that they refer to. The South Korean concentration in large, urban business requires lengthy commuting and long and inflexible working hours. This is incompatible with demands on women's household labour and thus women drop out of the formal labour market after bearing children. On the other hand, the Taiwan employees work closer to their homes, requiring less commuting and 'connections between employer and employee are likely to be more informal and arrangements for working mothers are probably easier to work out' (p.1111). So it is not just the capital intensity of production working by itself, but in conjunction with a continuing burden of childcare for women.

We should note that China, like Taiwan, also has an inverted U-shaped women's labour supply curve. But both in rural, light industry and in urban, heavy industry there was a considerable provision for childcare, a socialization of childcare, attached to the place of work. Thus Chinese women after bearing a child did not have to abandon their careers and take to work in family enterprises or self-employment (as in South Korea) or to part-time work (as in Japan). In one way or the other, in both Taiwan and China what is important is that childcare facilities were provided at the work-place, whether informally as in Taiwan or more formally as in China.

But, with reform the Chinese government has cut down on state provision of social welfare facilities. Enterprises are having to pay for these facilities themselves. Those Chinese enterprises that have to compete in the global market obviously

cannot afford to burden themselves with extra costs in providing for child care and other expenditures that are part of enabling women to continue working. But it is not only such globally-competing enterprises that are enforcing such cuts. Even those state enterprises that are protected from global competition, having adopted the goal of profit maximization are reducing expenditures on nursing and child-care benefits (Elizabeth Croll, 1996: 120). Women are given work at home. They are routinely encouraged to retire earlier; the mother-in-law bar.

This will result in the formation of two sections of workers - one, largely women who will be part-time or part-home-based workers, with no career prospects, and the other, largely men, who will be full-time workers with promotion and career prospects. The flexibilization of banking in Japan with the introduction of the new information technologies has strengthened the difference between the two tracks.

The Japanese two-track personnel system consists of (1) general track (*ippan*, or miscellaneous clerical or 'mommy track', as it is called), and (2) elite comprehensive track (*sogo*). The first, miscellaneous track has no scope for promotion. They are dead-end jobs. But given the burden of unpaid domestic work, most Japanese women seek this dead-end track, since it is less demanding and flexible (Mikeo Takenobu, 1997: 87).

A Japanese banking case study shows 'a significant increase in the number of part-time workers (mostly female) working in data processing, while regular (predominantly male) employees are increasingly concentrating on work involving a higher degree of discretion and judgement, such as financing, fund operation and consulting services. Most of the female part-time employees in the Japanese case study ... are former employees returning to employment after a period of interruption due to marriage or childbirth' (Muneto Ozaki, 1992: 35-36).

What the above shows is that with global competition it is not possible for one (or some) enterprises to bear the cost of providing child care and related expenses, while competing enterprises do not. The answer is not to abandon women employees to their own fate, or to try to continue avoiding global competition. The gender-equitable answer lies in working out systems whereby society, or parts of it, like the local government institutions, bear the cost of the social services needed to keep women working on a regular basis, like other employees. Along with this is the necessity of redefining gender roles, so that men share childcare and other household responsibilities with women. Advancing women's access to higher education, as has been reasonably successfully done in Japan and South Korea, is not sufficient to ensure equal consideration for women employees. A level playing field, as it is called nowadays, is needed for women and men employees to be able to compete in the labour market.

More recently, advances in IT have led to changes in the organization of work. We will look at the effects of these changes in two areas: manufacture of telecommunications equipment and garments.

Computers and Skill

The technological shift from labour-intensive to capital-intensive methods involves a considerable financial investment. The costly machines also require skilled workers to operate them. Unlike, for instance, assembly-line work, chip production requires more than just literacy but also the ability to comprehend general problems and solve them. Computerized manufacture cannot be carried out by successive cohorts of young workers, as is possible in, say, garment manufacture. Consequently workers now stay on for long careers, if not for all of their working life.

The new organization of labour is characterized by group working, or Quality Control Circles (QCCs), and multi-tasking rather than the assembly-line style single tasks. In the context of the new forms of organization of labour in the production process, made possible by the advances in computerized production related to IT, the most important question is: does the new technology and its associated organization of labour lead to a de-skilling of labour? The question of de-skilling was first raised by Harry Braverman (1974) in relation to craft workers. These craft workers were men, and it is no accident that the very context of skilling is gendered. The definitions of skilled and unskilled labour, or heavy and light labour are notoriously gender-loaded concepts. Women's labour in weeding or transplanting is taken as neither skilled nor heavy; while ploughing is considered both skilled and heavy. In the industrial context, however, what one may pay attention to is whether labour has a character of being in relation to the whole of a product or process or not.

In the first round of the electronics industry in the 1970s in Malaysia, the nature of work in, for instance wire-bonding, limited an operator to a single machine. There were three women to each machine. The tasks were monotonous and 'narrowly dexterous in skill terms'. But in the mid-eighties each worker performed multiple jobs - material handling, wire-bonding and quality inspection. 'In addition, vertically, the operator now reasons, solves problems, maintains machinery used (including simple machinery repair), uses statistical process control to monitor yield and inventory flow, and attempts improvements' (Rasiah 1994, 22 in Maznah Mohamad and Cecilia Ng, 1997, 13). As the authors point out, in a way the women have been de-skilled of their former skills of nimbleness and dexterity. But they have acquired new skills, '...such as the ability to make judgements, literacy, ability to undertake tasks requiring multiple skills, logic, inventiveness, creativity, capacity for training and motivation to learn more [which] are more valued than the previous "lower-order" qualities' (Maznah Mohamad and Cecilia Ng, 1997: 30).

While the new work requires more skills than formerly, it does not mean that the same women will be retrained for it. In banks in India, older women were not retrained, while young workers with some computer knowledge were hired (Gothoskar, 1995: 169). Similarly in Indian iron ore mines when manual loading was replaced by mechanical loading, women were almost entirely forced to retire, while men alone were retrained for the new jobs (Irina Sen, 1995). In Vietnam with the introduction of new technology 'many middle-aged women had to move to unskilled low paid job or to go to an early retirement without a clear future' (Nguyen Nhat Tuyen, 1997: 67).

The change in the organization of work does seem to reduce alienation, but it should not be presumed that alienation has been eliminated. The factory and the results of a woman's work, other than her wages, still belong to an other, to the owner / manager. But what does change is the system of dominance of capital over labour: rather than a brutal despotism, there is now a seeming consent of labour to the hegemony of capital (Burawoy, 1983). But, of course, one cannot forget the context in which this *consent* is secured - it is the context of having no other option for earning a living. Further, it is the consent that increases the pressure to perform continuously at one's maximum capacity, to be permanently attentive, with all the attendant strains and stresses. This, along with long working hours, as in Japan and South Korea have led to the phenomenon of *karoshi*, or death from over-work. This has so far been a *privilege* of men. It could affect women workers too, provided they remain in the ranks of the permanent workers.

Along with the multi-tasking and the QCCS there, however, is still a monopoly of men over some areas of work. Men set the machines, while women operate them. While the tasks of operators have become more comprehensive, they still remain separate from those of the women who set and programme the machines. In the Chinese computer industry, while there is the introduction of new technology and the expansion of the industry, men dominate as workshop directors and supervisors. 'This gender segregation is even more evident in the foreign subsidiaries...with technologies which allow for international fragmentation of labour processes' (Zhou Meihe and Guo Haiyan, 1995: 65).

This division of labour is not an inevitable feature of the technology. The Scandinavian trade unions, and also some in Canada, Mexico and France have been able to secure worker participation in the design of information systems and in programming, not just in operation (Cecilia Ng and Carol Young, 1995: 178). For this the trade unions and women's organizations would have to go beyond the economic demands to which they confine themselves. Again, one should not exaggerate the extent to which working conditions can be improved for, with global competition the aim of production would still remain accumulation, without which an enterprise would soon lose its competitiveness.

One effect of mechanization and computerization of manufacturing is that they reduce the physical labour component and increase the skill or knowledge component of labour. It makes it possible for women to take up jobs in manufacturing that were formerly the preserve of men. Of course, this would require girls to also take up technical training in areas of manufacturing. Further, with the abolition of the loaded distinction between *heavy* and *light* work, it is easier to argue for equal wages for women and men for work of equal value.

In the metallurgy industry in China, women used to be only one per cent of the total work force. But with the introduction of new technology, reducing the *heaviness* of work, the proportion of women employed in the Beijing Iron and Steel Company, and in the Benxi Iron and Steel Company in Liaoning Province has gone up to 28 per cent in each case (Zhou Meihe and Guo Haiyan 1995: 21).

Women's Needs

The needs of domestic or reproductive labour are the least addressed in technological development. But in a market-dominated system, the extent to which reducing the drudgery of domestic labour and its health hazards are dealt with, depends on the extent to which women's labour is monetized. Changes in house or kitchen design to promote more gender-equal roles (sharing of domestic labour between women and men) and to make the labour less hazardous need to be integrated into new architectural practices. This requires both more women as architects and technologists, and consultation with women users of these technologies, so that they can participate in their design, and changes in gender relations which make these technological changes necessary.

Can technology play a leading role in spurring these changes? It is not technology itself that has certain inevitable consequences, but the economic and social situation in which technologies are introduced, and the balance of forces at any time. Certainly systems of cooking, house cleaning, clothes washing, etc. which reduce the labour in these activities, may make it easier for working couples to share domestic duties. But it is also possible for such technologies not to inevitably lead to such changes in sharing. Japan is a good example of all the available labour-saving technology not leading to any sharing of housework between the two genders. So long as women do not insist that their careers are not subsidiary to those of their husbands, and that housework be shared or socialised (even commercialized in parts, like laundry washing of garments, or preparation of meals), there need not be any change in gender relations, no matter what technology is available.

Cultural ceilings and creation of technology

New visions and new technologies that enable them to be realized can only be developed in an atmosphere that encourages non-conformity. Major innovations always start out small and in some individual's thinking. Over time what starts out as individual defiance may become a new social norm. In technology too innovation starts out in small organizations, which then grow (or are taken over by others). An over-emphasis of conforming to the norm, other than in such general matters as adhering to principles of justice and goodness, will only stifle initiative. The present economic crisis of Southeast and East Asia shows very clearly that these countries have reached the limits of *catch-up* industrialization based on high saving and cheap labour. A crisis, however, is also a time of opportunity, a time when the directions of society can be set anew.

Discussion on innovation usually focuses on economic incentives, competition, economic institutions and the like. Political democracy nowadays also enters the realm as a necessary factor for innovation. Above and beyond these areas, it is necessary to draw attention to ways of thinking and cultures. A culture that insists on a strict hierarchical separation of the thinker from the producer, as Brahmanism or Confucianism do, is unlikely to do very well in relation to mundane problems of production. And even in a politically democratic system, such as Japan, a culture that stresses conformism is unlikely to be conducive to innovation. Economics and politics are necessary but not sufficient factors for encouraging innovation.

If East and, to an extent, Southeast Asia, face the question of raising the cultural ceiling to be innovative, South Asia faces an even more restrictive cultural ceiling - its continued tolerance and justification (a justification in some instances couched in nationalistic terms of maintaining competitiveness) of mass illiteracy, particularly of women, and child labour. This is a basic cultural ceiling that has to be overcome in order that South Asia emulate East and Southeast Asia's investment-driven accumulation, let alone go beyond it.

The cultural ceiling exhibits itself very starkly in relation to the role of women. The idea that technology is not for women, that women are not technologically minded is strongly embedded not only in Asian thinking, but also that of Europe and America. The many technological innovations that women have historically been responsible for, including the creation of agriculture, are ignored in such thinking. Women's knowledge, based on their labour, is ignored in the creation of new technology. The cultural ceiling that effectively debar women from contributing to creating new technologies needs to be overcome in order to increase the potential of human society.

Conclusions

There are no uni-dimensional answers. However, what could happen across the board, particularly with the introduction of new information technologies is that older women (and men) might not benefit from its introduction. Age is now considered as a mediating factor in the reorganization of work, irrespective of gender. Younger women and men replace older female and male workers, resulting in a socio-economic and technological learning gap. The question is what kind of policy interventions are needed to reduce this widened gap between genders, within each gender group and across generations?

In the post-colonial world of the fifty years since the end of the Second World War in Asia one broad conclusion can be stated: overall women have advanced in search of more equal gender relations in most of the continent. The challenges to patriarchy are increasing and patriarchy is weakening. While the new technologies, particularly the new information technologies, whether in manufacturing, services or communications, have great promise in terms of dissolving old bases of discrimination, such as heavy and light work etc., the potential of these technologies for decentralized and more humane development, with participatory political structures, has yet to be realized, because of continuing patriarchal relations and the domination of accumulation over national goals.

In the context of technological change women, along with other particular interest groups, like workers, farmers, indigenous peoples, professionals, etc. need to make their impact on determination of national policies.

Specific policies to enable women to increase their benefits from technological change

From the discussions above, a number of specific policies can be formulated to enable women to increase the benefits from globalization.

- Women to be re-trained for new jobs where old jobs are becoming redundant due to mechanization or automation.
- Compulsory education for girls, initially through primary school and then up to high school, in a time-bound plan.
- Community provision of child-care facilities.
- Encourage flexibility in post-marital residence.

- Skills and technical training for women in informal sector.
- Training for women in various professions.
- Promote *industrial districts* in particular products and sectors.
- All parts of the chain of manufacturing to be treated as the responsibility of the corporation that is the principal contractor / employer.
- International action of women's groups, unions and consumer groups to gain enforcement of core labour standards in order to encourage technological upgrading.
- No exceptions for transnational and other corporations in export industries from labour laws and other relevant labour standards.
- Reduction of working hours in Japan and South Korea.
- Acceptance and implementation of principle of equal pay for work of equal value.
- Computerization of production and office jobs to be done in consultation with women and other worker groups on the basis of training and enabling workers to upgrade their skills and be aware of programming and not just operation.
- Equal opportunity in skilled and supervisory jobs.
- Abolition of secondary track for married women and their integration into general cadre.
- Equal treatment of migrant workers.
- Legislation to make buying of sexual services an offence.
- Protection of intellectual property rights of indigenous people and peasants, and measures to enable indigenous and peasant women to work with scientists and technologists to develop new technologies and products from their indigenous knowledge.
- Global solidarity of organisations of or for women's, indigenous peoples', civil liberties, workers, farmers, local communities, etc. to impose restraints on operations of transnational and other corporations ..

The globalization dominated by accumulation, gender and other social inequality, and the privileging of material wealth over human and spiritual values, can then be challenged by a broad coalition. This coalition can develop new visions of social

relations, to use technologies in a way as to decentralize decision making, privilege human and spiritual values over accumulation, enable individuals to develop within communities, sustainably relate to nature and reduce gender and other social inequalities in society.

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Societal and cultural enabling environment, spaces, knowledge and agency for lifelong learning

Gudrun Lachenmann

Enabling environment in knowledge societies

Lifelong learning in knowledge societies needs social spaces and institutional arrangements to be created in society and in the political system, securing access and flexibility, and including institutional learning. Thereby, a mutual relationship is created with societal transformation.

The term 'knowledge society' refers to knowledge being the decisive resource in economic, social and cultural development. As sociology of knowledge shows (Berger, Luckmann 1974) knowledge and agency are intimately linked, thereby leading to the social construction of reality through practice. It is important to see that agency comes through knowledgeable actors (Giddens 1995), whose everyday knowledge as well as special knowledge has to be looked at from the actors life-worlds perspective. Knowledge is produced in different areas and spaces and distributed in society. There are carriers of specialised knowledge and socially organised ways to distribute and transfer knowledge. Knowledge is socially fabricated (Knorr-Cetina 1981). Knowledge is always situated. 'Encounters at the interface' (Long 1989) of different knowledge systems can be studied through different logics of agency, social worlds, codes, negotiations etc., thereby looking at fields of power. However, knowledge systems should not be looked at as closed units.

Knowledge is the relevant resource for socio-economic change and innovations, starting from the every day knowledge and local knowledge). Mark Hobart (1993) has shown how, although we are living in a knowledge society, there is a 'growth of ignorance', especially with regard to development. Through annihilation of local through expert knowledge 'systems of ignorance' are being constructed.

'The criteria of what constitutes knowledge, what is to be excluded and who is designated as qualified to know involves acts of power' (Hobart, 1993, p. 9, referring to Foucault 1971). There used to be two different positions in development theory, one of knowledge having to be diffused through modernisation processes, rendering all *traditional* knowledge primitive. The other was strongly criticising transfer of

Western knowledge, partly leading to concepts of appropriate technology, partly to what could be called mystification of *traditional* knowledge. It is clear that the first approach constructed these systems of ignorance, as has become especially clear in agricultural research, where systems of local knowledge and practice have been shown to be very creative (Richards 1993). Also it has been shown that diffusions of innovations very often do not follow this top down approach. But agricultural research and extension, as well as development policy in general, have failed to take into account local knowledge and practice, as well as the every day world which largely influences processes of learning and appropriating knowledge and adapting it to circumstances.

Innovations in development have often been *administrated*, implying that there is only one appropriate set of solutions for a problem, so that there is no pluralism of solutions and possibilities. This is the case, for example, with regard to *packages* of agricultural policies (e.g. green revolution). Very often, these packages are unpacked in ways that go against the idea of efficiency of the development agency.

Therefore the question is how knowledge should be transferred and interact with local conditions, creating an enabling environment of learning, i.e. being autonomous and having agency, including reflexivity, to experiment and direct one's own learning processes. The idea of course is that top down transfer prevents learning and integration and application as well as further development of knowledge.

Globalisation processes are mainly constituted and structured through knowledge. Through new technology, development and media information can be transported and distributed. But information is not equal to knowledge, and therefore is not automatically conducive to learning and being able to apply and produce new knowledge. The interfaces between knowledge systems, the question of reflexivity, and autonomous agency in knowledge production, have to be looked at. Practice and knowledgeable agency are pre-conditions for learning.

Cultural and sociological theories of globalisation try to conceptualise these fields. The approaches offered by Roland Robertson (1995) regarding 'glocalisation', Nederveen Pieterse (1995) regarding hybridisation, as well as Arjun Appadurai (1991, 1998) regarding translocality and de-territorialisation, seem especially useful with regard to a culture of life-long learning.

Nederveen Pieterse (1995, p. 45) uses the idea of 'globalizations in the plural' which follows ideas of different 'modernities' overcoming the ever present Western centrality. Comparative cultural analysis means that cultural features will no longer be able to be understood on the basis of special cultural systems, but of discursive and dialogue-interactive dimensions of reconstruction and reflexive techniques (Stauth 1995, p. 94 f.). 'Hybrid formations (are) constituted by the interpenetration of diverse logics' (Nederveen Pieterse, 1995, p. 51). Knowledge and meaning, and therefore

learning, will have to be considered to take place in social spaces, where meaning and knowledge is negotiated.

Learning society

All institutions in society must be such as to make lifelong learning possible. Organisational development should be geared to encourage flexibility and learning. Organisations, including enterprises, should be learning organisations themselves: the problem is that in many organisations learning processes from their own activities are not possible, no feed back or critique is admitted. Knowledge management has to be completely changed, reflexivity introduced, and authoritarian modes of bureaucratic functioning overcome. I argue that organisational structures discourage and hinder creativity, and although the life long learning process should start from the perspective of social agency, this should not lead to an individualistic, motivational approach but to the search for ways of learning and doing.

In feminist development research, the use of knowledge on women and by women has become an issue of concern (Goetz 1994). On the one hand, 'systems of ignorance' are constructed by always maintaining that nothing or not enough is known about the situation of women/effects of globalisation etc.. On the other hand the introduction of gendered accounts, information and monitoring systems keeps statisticians (and nowadays even NGOs and UNIFEM) busy, while mainstreaming or, better, engendering through regarding gender as a socio-analytical category and gender analysis as a structural approach, does not seriously take place.

'If ... the political environment for policy making affects the kind of information which is received by decision-makers and the way it is used, then the project for a more satisfactory translation of feminist knowledge into bureaucratic procedures must involve pursuing gender-equity in organisational environments, and in the ways in which information is collected and knowledge is created' (Goetz 1994, p. 34).

Civil society as arena of public debate and learning

In most societies free exchange and access and the potential for elaborating new solutions is seldom possible. It would require the opportunity for using multiple information channels and the creation of a critical public debate. Knowledge on one's own society and economy etc. is not necessarily easily available.

The participation offered, for instance by donors on certain policies (e.g. agenda 21, poverty alleviation) is top down, so that the dominating discourse is adhered to, often through consultants, and no learning from real world experience is possible.

Different arenas should be provided where equal exchange is possible. Approaches such as those provided through NGO-fora, social movements etc. should be encouraged.

State and donors often declare themselves to be the only legitimate transmitters of knowledge and do not recognise learning processes of other actors. For example, in Senegal a bilateral Senegalese/German project is teaching local council members and peasant and women's organisations organisational development. These movements have been establishing their own learning processes for a long time, often together with foreign NGOs, but their agency is not recognised in the project process.

International agencies' efforts to create spaces for knowledge exchange for NGOs are certainly interesting, although such spaces might have existed for quite some time, even if not recognised (such as in church surroundings). Of course, NGOs are not automatically to be equated with civil society, and spaces *provided* by international agencies, even the state, are not automatically ones where interactive knowledge production can take place. The knowledge to be presented will go through self-censorship and favour a certain homogenisation. For example, the concept of best practices etc. always risks the assumption that certain solutions can be applied all over the world, omitting the importance of contextualisation. There are certainly many risks of deception linked to it.

Local and expert knowledge

Clifford Geertz (1983) has since the seventies suggested, within the framework of an interpretative anthropology, treating cultures as systems of interpretation, and, as a point of departure, introduced the concept of 'local knowledge'. This approach 'is, rather, one that welds the processes of self-knowledge, self-perception, self-understanding to those of other-knowledge, other-perception, other-understanding; that identifies, or very nearly, sorting out who we are and sorting out whom we are among. And as such, it can help both to free us from misleading representations of our own way of rendering matters judiciable .. and to force into our reluctant consciousness discordant views of how this is to be done ... which, if no less dogmatic than ours, are no less logical either' (Geertz 1983, pp. 181-2). He aspires 'toward a heightened concern with structures of meaning in terms of which individuals and groups of individuals live out their lives, and more particularly with the symbols and systems of symbols through whose agency such structures are formed, communicated, imposed, shared, altered, reproduced' (Geertz, 1983, p. 182).

At the interface of local and expert knowledge 'systems of ignorance' are often produced so that a mutual learning process is rendered impossible. This is often the case with agricultural extension etc. Especially in development co-operation, but also in the education system, only one-way solutions have been propagated (administrative innovations) instead of admitting diversity and plurality of knowledge.

Innovations need spaces for local experimentation. I contend, for example, that all International Agricultural Research Institutions, through their non-interactive structures of knowledge production, have been unable to produce knowledge which is appropriate for learning processes, i.e. useful for social and economic change. Their approaches should be fundamentally changed, e.g. farming systems research is not enough, nor the recent rhetoric of participation.

This can be shown very clearly as regards innovations. As has been explained in a study in Northern Ghana by Tina Padmanabhan (doctoral thesis 2000), an absolute gender-blindness prevails. This means, for instance, that it is not known what kind of innovations are adopted in reality, as women partly have to work for men when innovations for cash crops are being introduced. In certain circumstances, however, they introduce innovations on their own fields, thereby being able to enlarge their scope for manoeuvre and sometimes enter market production. The study clearly shows that there is a female line of learning, i.e. transmitting information and knowledge creating possibilities of practice (in relation to new seeds, for example).

Very often, women are constructed as 'ignorant' in different fields of development, in addition to agriculture in health and protection of natural resources. In health, this becomes very clear in health education (e.g. regarding nutrition of babies), where studies have shown how no relation is constructed either towards local knowledge and practice, or to the concrete situation (e.g. regarding scarcity of food). 'You have to educate your women', I heard a (female!) development worker in Senegal say, who was even working for a peasant organisation.

In NGOs it very often occurs that a developmentalist discourse is practised, without openly reflecting the present situation (such as was the case at a donor influenced conference of women's organisations on poverty in Cameroon which I attended). Local knowledge about social reality is not looked into, leading to artefacts of programmes. Also, it is well known what kind of information and knowledge is expected from donors and a whole learning culture has been created to 'teach people how to write development documents'. This concerns all levels of knowledge and expertise. The global developmental jargon is of such dominance that I have serious doubts that the knowledge cultures propagated recently by agencies such as World Bank, UNDP and others, will seriously enable processes of interactive knowledge production and learning processes for practice.

(Social) science knowledge and policy advice

In many countries there is very little learning through policy advice to government institutions by national (social) science. The consultancy arrangements in development co-operation do not render knowledge as transparent. On the other side, national research does not learn on the basis of the reality of its own country. Therefore learning cannot take place in society through a critical public debate, making use of national research.

The regime of knowledge produced through consultancy prevents learning and the application of knowledge to challenge practices. Consultancy reports are privatised, not subject to public debate, not even amongst researchers – the only way to validate their knowledge. Therefore the knowledge present is not really used for national policies. Also, I have hardly seen national researchers, including students, doing research on development projects and co-operation, according to their own terms of reference. For students, this is especially negative, they very seldom are able to connect theory and practice. There are still stocks of knowledge fed to students, who are lacking books. But also, there is often little confidence in national knowledge production. Mostly, only reports from international experts are quoted. On the other hand I realise that there is little effort made to access locally available material, taking the position that local researchers have no access to knowledge on their own society (which of course is often true).

The conflict between socially distributed knowledge and global learning has to be addressed on different levels (e.g. gendered knowledge regarding bio-diversity which is taken over by transnational regimes). Also, the space *provided* by development agencies through the Internet is indeed absolutely important as regards access to scientific knowledge and research results. But the ‘epistemic communities’, which are typical for the structure of scientific knowledge production, are absolutely necessary and the fora and chat rooms provided are clearly no equivalents. There is a risk that national and regional scientific communities will rather be neglected in the participation in this global sphere. This would seriously influence interactive learning in situated contexts of students and hinder regional critical discourses.

Anyhow, there is a clear dominance of Anglo-Saxon knowledge systems leading to an impoverishment and many countries do not try to go against this. The uniformisation of epistemic traditions becomes very strong, not only in financial economics. In any case, the learning how to learn and to evaluate information is very important, and there are big lacunae.

The World Bank Group has, for some years, run the so-called *infoDev* programme which claims to be able to bring about ‘the Networking Revolution’ for developing countries. The efforts made are certainly hitting urgent needs, such as the initiatives called the ‘African Virtual University (AVU)’ and ‘World Links for

Development (WorLD)'. AVU is delivering instructional programmes, executive business seminars etc. and is meant to be a profitable enterprise. Also a Global Distance Learning Network has been established. The Global Knowledge Partnership (GKP) is meant to be an 'informal partnership of public, private and not-for-profit organisations', which is 'committed to sharing information, experiences and resources to promote broad access to, and effective use of, knowledge and information as tools of sustainable, equitable development'.

The Global Development Network (GND) is a recent initiative (1998) and aims 'to support and link research and policy institutes involved in the field of development'. The elements, such as 'funding to create or strengthen competitive peer-review grant mechanisms for generating research' are certainly very relevant. Also there are 'knowledge-sharing programs ... regional workshops focusing on building the capacity of research and policy institutes' etc.'

The question is whether many former initiatives are also supported to continue in their own efforts. Take Codesria (Council for the Development of Social Science Research in Africa, headquartered in Dakar/Senegal), or smaller initiatives established through partnerships with European (and certainly American and Asian) universities. An example is 'Point Sud' established in Mali. Also associations of researchers (and consultants) from North and South are extremely relevant to provide fora, and the epistemic communities developed, producing peer critique and encouragement, are not sufficiently recognised and supported. An example is APAD, Association Euro Africaine pour l'Anthropologie du Développement et du Changement Social. From Swiss Co-operation there is a Programme financed together with The Swiss Research Fund (SNF) for Development and Environment. I have had the opportunity to take part in the activities and debates. However, the institutionalisation in the research institutions in the countries involved is lacking, as is so often the case.

Also, the World Bank is in the course of creating a Global Development Gateway as a 'portal website on development issues', providing 'information, resources and tools' and into which users 'will be able to contribute their own knowledge and experience. It will enable development actors to instantly share information and experience, to easily communicate, and to build communities around significant development solutions from the grassroots up'.

The architecture is meant to be based on a 'distributed content model'. Apart from the Global there will be Country Gateways. 'It will ensure that content is easily accessible to users from both ... Gateways at any level of aggregation'. It foresees among other things information and knowledge tools including 'academic papers, project reviews, best practices and other information from over 12,000 premier

development sources' and provides 'Community Collaboration/Dialogue', 'Advisory Service' etc.

There is certainly a lot of critical follow up needed regarding all aspects treated here in relation to validity of knowledge, plurality, democratic legitimacy etc. etc. Validity of information and data presented means that scientific methodological rules have to be adhered to and, this is the most important, made transparent, including citation and argumentation within the scientific community. The risk is that contributions cannot be evaluated accordingly. One of the current issues of critical debate on social science knowledge in development is the assumption that statements and comments by so-called civil society organisations – whose research quality or social legitimacy are not explained – are taken for granted as images of social reality. This is a fundamental methodological and populist misunderstanding.

Engendering of learning culture

Learning arenas, institutions etc. are gendered with regard to access, structuring of social space, types of knowledge etc. In all fields of society, women risk being the most excluded group. On the labour market and in organisations, including enterprises, the qualification of women is constructed in a gendered way, e.g. taking for granted that women can or cannot do certain things. Studies have shown that these images structure the labour market, including opportunities for advancement and training, with these gender constructs influencing and hindering – even more than is known from the formal education system – learning processes at work, that are constitutive for life long learning. This is often of course linked to promotion, pay, positions of authority etc. It can be completely different in different societies. For example, in Bangladeshi textile firms (Dannecker 1998) women are supposed not to be able to iron (sic), or to do technical work, which needs a 'typical quality of understanding how things work'. In order that women should push for changing this situation, they might create their own spaces of learning and practice (e.g. in IT firms in Philippines; computer services in Pakistan). Knowledge is lacking about what can be termed *female economy*, in the sense of gendered economic activities beyond the household, regarding social relations and institutions of access to land and natural resource management.

Social and cultural learning regimes

Normally, knowledge is socially distributed and not all categories of people are entitled to know. For example, in hierarchic, mainly oral societies only certain people are authorised to know and to produce and to transfer knowledge. Correspondingly, certain people are entitled to learn and to know only specific subjects (Diawara

1985). This influences the outcome of all participatory methods and is often overseen, e.g. when men are interviewed on subjects only women know, or women do not speak out but refer to authorised knowledge.

Often information is addressed to or knowledge is requested from people who are not the legitimate actors. Such as extension service in agriculture, which is directed to men, although the relevant tasks, according to gender division of labour, fall outside their responsibility. In this way, it is not possible to negotiate changes in this division of labour etc. which would be concomitant with learning.

Of course, there is secret or restricted knowledge in all societies. The problem is that local knowledge e.g. concerning spirituality and healing has been and is still delegitimised so that its carriers are accused of being secretive and not wanting to share their knowledge. This certainly leads to erosion of specialised knowledge and hinders the creative further development of local bodies of knowledge within a wider framework, i.e. in exchange with other types of knowledge. Also it prevents knowledge from being transmitted in society. Again, there are separate systems of knowledge and practice, with *traditional* medicine being made a 'system of ignorance'. For example, curricula of nurses have nothing to do with ideas and practice about illness.

This is a global phenomenon with glocalisation processes taking place e.g. with regard to Chinese medicine. However in Africa a serious professionalisation is not taking place. If there is consideration of *just compensation* for making use of local knowledge (e.g. bio-diversity) it implies also that this knowledge is definitely alienated (pharmaceutical enterprises, biological research institutions), instead of developing (in addition) some new forms of local use. It is evident that creative learning is absolutely hindered. Any resources paid for compensation should be directly invested in this kind of professionalisation or (regional) research institutions. Otherwise it is a sell-out. How does it help if we know that women are responsible for local knowledge and handling of seeds if projects designed for (local) seed banks marginalise women completely?

Democratic learning and cultural diversity

Authoritarian modes of governance (Mbembe 1988) need to be overcome also with regard to power of definition. Concepts of economy, formal and informal sector, household etc. are not corresponding to social reality, thereby making learning impossible. An example is polygynous gender relations, households etc., which are not taken account of in social security and social benefits, agricultural extension, credit systems etc. etc.

Creativity and initiative are not honoured. Democratisation processes on the one side, decentralisation on the other, do not share information, or make procedures transparent etc.. They rather mystify and complicate regulations more and more, so that, for instance, in local communities, although counsellors have been elected, members feel increasingly helpless and dependent on information and interpretation of rules from above. In Senegal, it becomes clear that processes involving state bureaucracy and the (then) ruling party took precedence over local autonomy and initiatives, preventing creative learning processes. By the same token, the successes, although certainly not always sustainable, of several decades of activities of the peasant movement, including women's groups, are not built on and their experiences and knowledge tends to be marginalised instead of being developed.

The training programmes carried through for elected counsellors, and training for organisational development for local peasant organisations – observed in Senegal in 1999 – showed the devaluation of these experiences and inadequate contents of training, which is hardly contextualised. We observed training – in local language – of peasant leaders on supposedly culturally adequate organisational development (based on African proverbs). First I had seen many of these leaders trained in self-organised workshops with NGO-support many years ago, and second what they would have needed to know is how to deal with authorities in the framework of decentralisation regulation. Also, the year long literacy programme efforts of the peasant organisation were forgotten in new programmes, including a Centre in the central village sponsored by UNESCO I think, with a nice newly built house, but with former buildings nearby falling apart.

The issue of language of course always has societal implications. In Senegal it is important that administrative documents are translated into local languages (but when this is done not by the state but by a German/Senegalese project it will not contribute to sustainability). The other thing is that in all countries of West Africa local instruction in Arabic – at least for writing – is not recognised at all and nobody builds on this. Nevertheless, the influence of Muslim Brotherhoods in the political sense is widely recognised. Such language issues highlight the danger of splits in society increasing.

A general problem in Africa at least seems to be that knowledge about local cultural and social institutions is widely considered to be *traditional*, while any research interest in social and political anthropology or sociology continues to be identified as *colonial heritage*. There is very little research done in situ by national researchers (we notice this when we get students from Africa doing their PhDs in Germany). This misperception of cultural and social realities and their changing structures during socio-economic and political transformation, in my view, hinders many learning processes taking place at all levels of society and especially in development policy.

On the other side, I think a lot of 're-inventing' of tradition and folklorisation and reification takes place, especially in developmentalist education, which mystifies cultural traits and does not look at change. There are what could be called translocal learning spaces which often are not recognised as such. Not only the Internet, but also migration and other social networks are much more influential than is normally recognised and very important for learning processes. This does not mean that there is homogenisation, but transnational debates e.g. in women's movements and networks, and glocalization and hybridisation take place, creating new forms of localisation of knowledge and learning.

A case in point is the Islamisation of the knowledge debate. There is a lot of transfer of knowledge taking place e.g. between South-East Asia (Malaysia) and Near East (Egypt) (Abaza 1993) as well as other regions (Lebanon – West Africa) where learning material is produced. It is important that there should not be any simple way of equating certain forms of learning (e.g. in Islamic Groups) with Fundamentalism, which is often the case. Islamisation is to a large extent extension of knowledge. Of course, as in other fundamentalisms, homogenisation of knowledge is problematic.

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Human memory

Lars-Göran Nilsson

Structure and function of human memory are essential components in the understanding of learning in general and of lifelong learning in particular. Just imagine if we could not remember anything about what we read or write, or if we could not recognize familiar objects in the surrounding world or the faces of family members and friends. Without a well functioning memory, life would not only be very bleak; life would also give us poor possibilities of engaging in the exciting world of acquiring new knowledge and experiences. In this paper I will discuss the main features of human memory and how memory changes as a function of age.

For a long time, memory was conceptualized as one single entity. The main feature of this entity was seen as spatial storage room. Already the ancient Greeks considered memory this way. Plato and Aristotle used an aviary and a wax tablet as metaphors for memory. Later philosophers and researchers have used similar metaphors. For example, Sigmund Freud used rooms in a house as the metaphor of memory. Donald Broadbent used the library as a way to illustrate how he conceived of memory.

The common features of all these metaphors are that they are spatial in nature and that they have the capacity of storage. Thus for a long time, memory was conceived of as a storage space only. Although, the storage view of memory has been the dominating conceptualization of memory, a radically different view has been proposed from time to time. The French philosopher, Maine de Biran argued in the early nineteenth century for a distinction between conscious and unconscious memories. The American philosopher and psychologist William James proposed that memory should be conceived of as consisting of two components, primary memory and secondary memory.

Neither Maine de Biran nor William James collected any empirical data to support their views. It was not until the late 1950s that empirical support for a division of memory into separate systems began to emerge. Experimental methods for the study of short-term memory were developed. These new experimental paradigms caught great interest among researchers in the field. Theories of memory, including a short-term memory compartment and a long-term memory compartment, were developed. Not long after, in the early 1970s, still more divisions of memory were proposed. One of the leading memory researchers at the time and now, the

Estonian-Canadian memory researcher Endel Tulving, proposed that long-term memory should be divided into two systems, semantic memory and episodic memory. At about the same time, observations had been made to support the notion of still another long-term memory system, procedural memory. During the 1980s, Endel Tulving and an American scientist, Daniel Schacter, proposed still another memory system, the perceptual representation system.

Based on these discoveries, a modern conceptualization of memory and its subsystems may be conceptualized as in Figure 1.

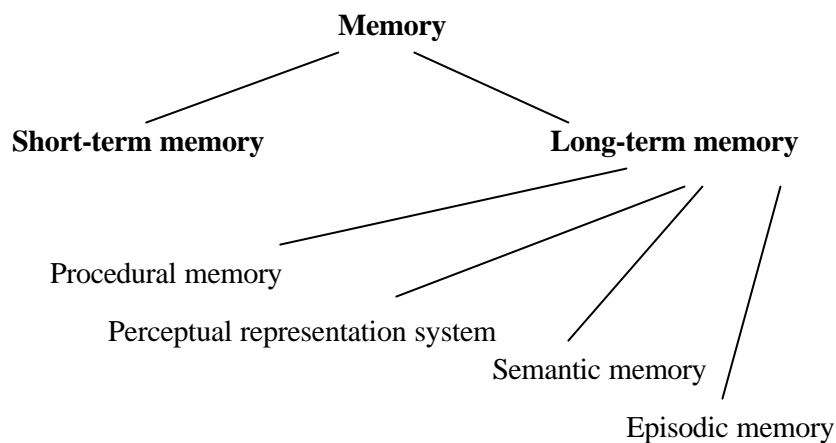


Figure 1: A schematic illustration of five memory systems

Procedural memory is the oldest memory system, phylogenetically (development across species, from the simplest animal to man) and ontogenetically (individual development, from birth to death). This memory system exists in all species and is present throughout the life span in humans. Procedural memory is used for learning various kinds of behavioral skills; it operates at an automatic level and its output is noncognitive. The perceptual representation system is used for identifying objects in the surrounding world; it operates at an automatic, pre-semantic level. Semantic memory makes it possible to acquire and retain general knowledge about the world at large; its retrieval is implicit. Primary memory makes it possible to hold and process information temporarily; it operates at a conscious level. Episodic memory is used for consciously recollecting events and episodes of one’s own past; it operates at a conscious level and retrieval is explicit rather than implicit. Episodic memory is the youngest memory system; it is assumed to exist in man and monkey only and it is present at about two years of age in humans, when self-consciousness is acquired.

Neuroanatomical correlates

Many details still remain to be explored with respect to the localization of each of the memory systems that have been proposed. However, it is a fair statement to say that contemporary memory research has arrived at a reasonably broad picture about which there is consensus. Most of these neuroanatomical findings are based on primarily two neuroimaging techniques: positron emission tomography (PET) and functional magnetic resonance imaging (fMRI).

The standard PET method for memory studies is to inject a radioactive tracer immediately before the start of the memory experiment and to average the signal generated by the tracer for about one minute. The resulting image is a time-integrated map of the distribution of blood flow in the brain during this period. For fMRI blood flow is measured by assessing changes in the blood oxygenation, without the need of a radioactive tracer. For both PET and fMRI, a single brain map cannot be interpreted by itself. The strategy used is to subtract the image from a control state of common cognitive processing from the image when the subject is carrying out the specific memory process that the researcher is interested in studying. The brain image resulting from such a subtraction provides a picture of which brain areas are activated for this specific memory task.

It is assumed that information, after sensory uptake by the appropriate sensory receptors (e.g., the hair cells in the cochlea), reaches the cortical level of this sensory system and is stored there short term (Markowitsch, 2000). Information is then processed by several different brain structures in a complex network for consolidation and permanent storage. The involvement of short-term memory/working memory for encoding or general processing typically activates prefrontal regions of the brain (see Figure 2).

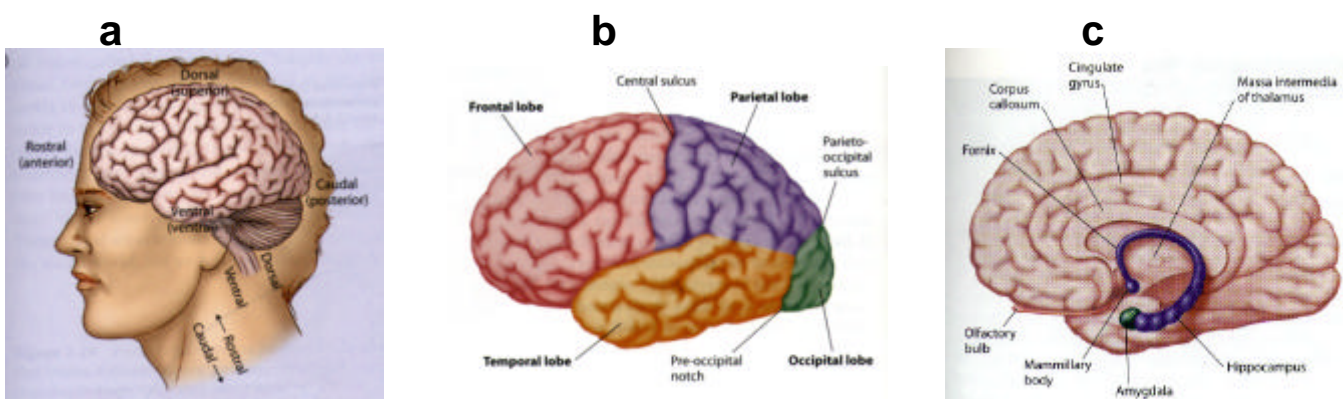


Figure 2 Some aspects of the neuroanatomy of the brain. The leftmost figure (a) depicts the location of cerebrum and cerebellum in the skull and the major terms used for indicating directions in the brain. Cerebellum is the small striped structure below the posterior parts of cerebrum. Figure b shows the four main lobes of cerebrum (frontal lobe, temporal lobe, parietal lobe, and occipital lobe) and major sulci indicating the border between lobes. Figure c shows a medial view of the right hemisphere with some of the major structures and areas mentioned in the text. Based on Gazzaniga, Ivry & Mangun (1998) Cognitive neuroscience, with permission.

Dependent upon the nature of the task that the individual is engaged in, different brain structures dominate in being activated. Thus, at episodic encoding it has been demonstrated that the left prefrontal lobe, the left temporal lobe and the anterior cingulate regions are activated (see Cabeza & Nyberg, 1997 for a review). In addition, increased activation in the vicinity of the hippocampal formation has been demonstrated in the case of episodic encoding (Nyberg & Cabeza, 2000). It should be realized that these processes involving several structures are very complex and difficult to map. However, Tulving, Kapur, Craik, Moscovitch & Houle (1994) proposed a memory model called HERA (hemispheric encoding/retrieval asymmetry), which gives a good flavor of which processes and structures might be involved in episodic encoding. The HERA model states that encoding consists of two subprocesses. First, there is a stage of novelty assessment, partly mediated by hippocampal regions, followed by meaning-based encoding operations, partly mediated by the frontal lobes.

Retrieval from episodic memory also involves several processes and structures in a complex network. There is reasonably good consensus that two broad classes of subprocesses are involved. One class of processes involves the attempt to retrieve information and the other class involves processes related to the actual retrieval of the stored information. As noted by Nyberg and Cabeza (2000) in a review of the literature, certain right prefrontal brain regions are differentially activated during episodic retrieval. In particular, the right anterior prefrontal cortex seems to be involved in episodic retrieval by maintaining a retrieval mode. Two other brain areas involved in episodic retrieval are the anterior cingulate, cerebellum and the precuneus in the medial parietal cortical region. If the information to be retrieved has a strong emotional or personal flavor, there is also activation of the amygdala. It is easy to realize that a functional disconnection between any of these structures may result in retrieval difficulties.

As mentioned, semantic memory taps the knowledge base about the world. The primary neuroanatomical structure associated with retrieval from semantic memory is the left prefrontal lobe (Nyberg and Cabeza, 2000). For retrieval on some semantic memory tasks, the left temporal and anterior cingulate regions are also activated. It is noteworthy that the left prefrontal regions are activated in both semantic retrieval and episodic encoding. This means that some prefrontal regions are probably part of more than one network subserving different memory abilities. This interaction between different neural networks involving brain structures supposed to be related to different memory systems of course adds to the complexity of the whole subject matter of understanding the neural correlates of different memory systems.

The research literature on neural correlates to procedural memory and the perceptual representation system is less extensive than that for semantic and episodic memory in particular. For procedural memory there is an interesting shift in

the brain areas involved from a state of unpracticed skill to a state of practiced, overlearned skill (see Schacter, Wagner & Buckner, 2000 for a review). In one study (Poldrack, Desmond, Glover, & Gabrieli, 1998), unpracticed performance of a mirror reading task was associated with activation of ventral visual (lower) processing regions and parietal cortex. After practice on this task there was a decrease in activation of the parietal cortex accompanied by an increase in left inferior temporal cortex. Performance in visual tasks tapping the perceptual representation system is consistently accompanied by decreases in blood flow in extrastriate visual cortex in the occipital lobe (Schacter, Wagner & Buckner, 2000).

Potential obstacles for life-long learning

Obviously, any brain damage, because of an accident or a neurodegenerative disease, affecting the central nervous system and thereby any of the brain regions described in the previous section, means potential obstacles to successful learning. Alzheimer's disease is one such neurodegenerative disease, which has dramatic consequences on memory and learning ability. Due to page limitations such states of brain damage will not be considered here. Instead, the discussion will focus on potential obstacles to life-long learning in the healthy, normal individual.

Since the topic of this conference implies the possibility of meaningful learning experiences beyond the formal education for school children, adolescents, and young adults, it is natural to ask the question how memory changes as a function of age. Such changes in the hard ware of memory may mean difficulties in acquiring new information in adulthood and perhaps considerable difficulties in acquiring new information in old age.

A large-scale longitudinal study on memory health and aging will shed light on these questions. This study is carried out in Umeå, a city of about 100 000 inhabitants in northern Sweden. The study is colloquially referred to as the Betula Study, since the birch tree (latin: betula) is the symbol of Umeå.

A general objective of the Betula Study is to examine the development of memory and health in adulthood and old age. More specific purposes are to explore early, preclinical signs and potential risk factors of dementia, and to obtain premorbid measures of memory and health in people who will be in accidents or will acquire various diseases during the course of the study.

The design of the study includes four samples of subjects with 10 different age cohorts in each sample. Subjects in the first sample (S1) were tested the first time in 1988-1990 (T1), in 1993-1995 (T2), and in 1998-2000 (T3). Subjects in the next two samples (S2 and S3) were tested the first time at T2 and then at T3, whereas subjects in the fourth sample (S4) were tested at T3 only.

Subjects in S1 were 35, 40, 45, 50, 55, 60, 65, 70, 75, and 80 years of age when first tested at T1. Subjects in S2 were also 35, 40, ..., 80 years of age when they were tested the first time, five years later, at T2. Subjects in S3 were 40, 45, ..., 85 years of age when they were tested the first time at T2. Subjects in S4 were 35, 40, ..., 90 years of age when they were tested for the first time at T3. A total of 100 subjects participated in each cohort of S1, S2, and S3, and 50 subjects in each cohort of S4 when each sample was first tested. All subjects were drawn randomly from the population of Umeå city

At each wave of data collection, subjects took part in extensive memory testing, a health examination and they completed questionnaires about various social and cultural variables. The memory tasks included those memory systems described earlier, i.e. episodic memory, semantic memory, primary memory, priming, and procedural memory. In addition to these tests, memory was also assessed by means of subjective ratings.

A series of episodic memory tasks were included in the battery: prospective memory, face recognition, name recognition, action memory, sentence memory, word recall with or without a distractor task, source recall, and memory for activities. In the prospective memory task participants were instructed to remind the experimenter at the end of the test session, when all tests had been completed, to sign a piece of paper. At the end of the memory testing the experimenter told the subject that the session was over as a cue for the subject to remind the experimenter to sign a paper. This is an event-based prospective memory task, which, in line with previous research (e.g., Einstein & McDaniel, 1990) revealed decreasing levels of performance as a function of age (Mäntylä & Nilsson, 1997).

In the recognition task for faces and names, participants were first presented with 16 color pictures of faces and made up, regular, and frequent Swedish names. They were told to remember the faces and the surnames for a later recognition test. At this later test they were also asked to remember the first name of each face, which was, thus, incidentally learnt at study. Age differences in face recognition performance have been demonstrated in several previous studies (e.g., Bartlett & Leslie, 1986; Larrabee & Crook, 1993; Smith & Winograd, 1978). Data from the Betula study confirm this pattern (Larsson, Bäckman, Nyberg & Nilsson, in press). Data also revealed age deficits in memory for names (Larsson et al., in press; Nilsson et al., 1997) in line with previous studies (e.g., Cohen & Faulkner, 1986; Larrabee & Crook, 1993).

For the action and sentence memory tasks participants were first presented with two successive lists of short sentences in imperative form (e.g., roll the ball, break the match) with a free recall test given immediately after each list. For one of the lists, subjects were instructed to enact each imperative presented. For the other list of

sentences, no such enactment was required. Subjects were given several recall and recognition tests after study. Considerable age deficits were found in all these tasks (Nilsson et al., 1997; Rönnlund, Nyberg, Bäckman & Nilsson, 2000). In this context subjects were also tested on source recall. The participants were asked, whether each test item had been presented as an enacted or nonenacted sentence. Large age effects were obtained (Nilsson et al., 1977; Rönnlund et al., 2000).

The basic idea behind the word recall task, with or without a distractor task, was to examine the extent to which subjects can encode and retrieve information while being engaged in a concurrent task. In each of four conditions, subjects were presented with a list of 12 common unrelated nouns with the instruction to learn these words for an immediate recall test. The concurrent task was to sort a deck of playing cards into two piles, one red pile and one black pile. Card sorting was done during both study and test, at study only, at test only, or neither at study nor at test. Nyberg, Nilsson, Olofsson and Bäckman (1997) demonstrated that age differences in memory performance were substantial under both single-task conditions and divided-task conditions. Thus, reduced attentional capacity in old age is not underlying age differences in episodic memory.

In still another episodic memory task subjects studied made up facts about famous people (e.g., Astrid Lindgren collects stamps as a hobby). Each statement was presented in one of four different ways: auditorily by means of a male or a female voice, or visually on a yellow or a red card. At test the information in the statements was presented again, but now in the form of questions (e.g., What is Astrid Lindgren's hobby?). This task is referred to as item recall of recently acquired facts. Participants were also questioned about how each item was presented, i.e. source recall. The results obtained showed a substantial decrease in both item and source recall as a function of age (Nilsson et al., 1997; Erngrund et al., 1996). This result is in line with the results from a similar study by McIntyre and Craik (1987).

In a final episodic memory task participants were given, incidentally, the task to report as many memory task activities as possible of all those they had been engaged in during the whole test session. Previous research has demonstrated that in this form of activity memory is highly age sensitive (Kausler, 1991; Kausler & Lichty, 1988). As shown by Nilsson et al. (1997) and Rönnlund et al. (2000), data from the Betula study revealed no exception to this rule.

There were also three sets of semantic memory tasks included in the Betula battery: word fluency, word comprehension, and general knowledge. In the fluency task, each subject was asked to generate as many words as possible during a period of one min with a certain criterion, e.g., words with the initial letter A. Word fluency tasks usually produce minor age deficits. Data from the Betula study revealed significant age deficits. However, when number of years in formal education was

used as a covariate in the analysis, the age differences were eliminated (Bäckman & Nilsson, 1996; Nilsson et al., 1997). It is important to include background variables like education into consideration when participants are randomly sampled from the population. Whereas the youngest participants in Betula have been in school for about 14 years on the average, the oldest subjects at 90 years of age, have been to school only for about half this time.

Previous research has demonstrated age deficits in word comprehension (e.g., Arenberg, 1989; Berkowitz, 1953; Kausler & Puckett, 1980). Such a result was also obtained in Betula (Bäckman & Nilsson, 1996; Nilsson et al., 1997). However, in the same way as for word fluency, the age deficit disappeared when education was used as a covariate. The third semantic memory task included a set of general knowledge questions. Erngrund, Mäntylä and Nilsson (1996) demonstrated that the 75- and 80-year-olds showed a lower memory performance in this task than all other age cohorts. These data suggest that, although there may be age-related deficits in semantic memory in the general population, education appears to be a more important factor than adult age per se for semantic memory functioning. It is of course very interesting to note from the point of view of memory theory that covariation analysis on episodic memory tests does not affect the age deficit.

Data from the task assessing the perceptual representation system in Betula revealed no age deficits (Nilsson et al., 1997). Previous research has revealed a rather mixed picture regarding the effect of age on the perceptual representation system. Whereas some studies report age deficits in priming (e.g., Chiarello & Hoyer, 1988; Hultsch, Masson & Small, 1991), others do not (e.g., Light & Singh, 1987; Light, Singh & Capps, 1986). One type of priming test is called word fragment completion. A series of words are presented at one occasion, e.g., one word might be ASSASSIN. At a later occasion during the same session, a fragment of this word is presented, __ S S__ S S__ N. At this test, subjects are asked to say the first word that comes to mind, when the subject is seeing this fragment, by filling in the letters missing and indicated by the lines. The proportion of fragments completed successfully this way is the test score on this word fragment completion task. Other fragments, emanating from words that were not presented at the previous occasion serve as baseline controls. The proportion of correctly completed fragments of this kind is subtracted from the first type of fragment proportion. The difference between these scores is the priming measure, which is used for assessing the function of the perceptual representation system.

Figure 3 presents idealized performance data for episodic memory, semantic memory, and perceptual representation system (PRS) as a function of age. These are not real data from a single study; these figures are merely presented for depicting general trends in how memory performance changes as people grow older. A few aspects of the figure should be noted. The difference in intercept on the ordinate at

the age of two years is meant to show that these three memory systems start developing at different times. However, since nobody knows exactly when each of the three systems begin functioning, I have taken the liberty to ignore what is happening at two years of age. At this age, the perceptual representation system has been functioning for some time and is thus the memory system that is most developed at the age of two years. Episodic memory has just started to develop at this age and the low value on the performance axis is just meant to indicate this.

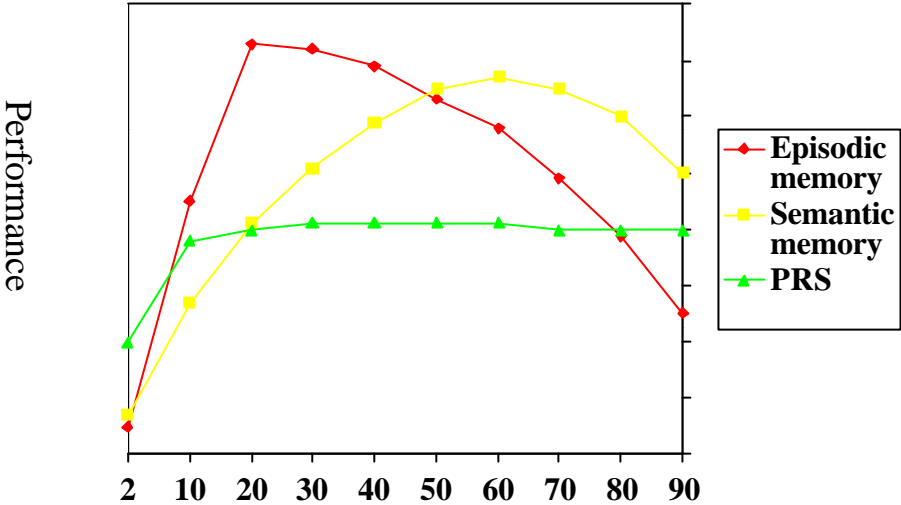


Figure 3: A schematic illustration of the life span development of episodic memory, semantic memory, and perceptual representation system (PRS). Idealized data.

Semantic memory takes an intermediate position in this development, indicated by the intermediate level on the ordinate. As can be seen from the figure, performance patterns for the three memory systems are quite different: For episodic memory, function increases in efficiency up to about 20 years of age, after which there is a steady decrease in function. For semantic memory, there is an increase in function up to middle age, followed by a rather stable level of functioning for some years. In old age, older than for episodic memory, the efficiency for semantic memory starts decreasing. For the perceptual representation system, a plateau in efficiency is reached early and remains stable throughout life. The aim of presenting these three age functions is to show that the memory systems develop differently throughout life. The difference top levels for the three systems are not meant to indicate any overall difference in efficiency. The three systems have different functions and it cannot be stated that one system is more efficient than another system in absolute terms.

As for procedural memory, no data from the Betula study is yet available, but a series of previous studies have revealed no differences between different age groups. A finding in the Betula of potential interest in the context of this conference is that of sex/gender differences in memory performance. Herlitz, Nilsson and Bäckman (1997) examined potential gender/sex differences in episodic memory, semantic memory, primary memory and priming, respectively. They found no differences between men and women with regard to age, education, or on a global intellectual functioning. However, the results demonstrated that women consistently performed at a higher level than men on episodic memory tasks, although there were no differences between men and women on the tasks assessing semantic memory, primary memory, or priming.

All in all, it can be concluded that significant age deficits can be seen in episodic memory tasks, whereas for tasks assessing other memory systems there are no age deficits when proper consideration has been taken of background factors like education. The extent to which women might be better off than men, to take on learning tasks and experiences in adulthood and old age is probably a question, which cannot only be based on research about how memory works.

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Lifelong learning in uncertain - or threatening? - times

Fúlvia Rosemberg

In reflecting on 'The learning environments today' in the agenda that we received for this Round Table, I decided that the best title for my paper would be 'Lifelong learning in uncertain times.' The inspiration for the title came from a text by Carlson & Apple (2000) *Teoria Educacional Crítica em Tempos Incertos*.

I cite the opening of the text:

Up to a certain point; all times are uncertain, given that cultural development never remains stable, it is never fixed. On the contrary, culture is emerging, contested, and consequently, it is in the process of being constructed and reconstructed as an historical product. Nevertheless, some times are more uncertain than others - times when the established social accords and established ways of viewing social and educational issues begin to wear out and are no longer capable of providing answers or of confronting the forces of crisis and social dismantling. These are such times, characterized by the collapse of communities, by cultural fragmentation and by the nearly complete instrumentalization of the self inside the logic of the market (p.11)

However, thinking again about my experience as a Brazilian researcher, who seeks to understand processes of educational exclusion, originating in economic inequalities and those of gender, race and age, and the sense (or meaning) of this Round Table for the UIE (UNESCO Institute for Education) research program, I reviewed my decision. To include the term threatening, alongside uncertain, and in the interrogative form, better reflects the concerns that mobilize me and which I propose to share with you. So I proposed to view the issue from the point of view of a meta-analysis of the agenda of this Round Table. That is, to point out the risks or threats that can arise from a search for creative and inclusive solutions for fostering a culture of lifelong learning.

In carefully analyzing the agenda - themes, questions and the description of the learning environments - I had noted the absence of a focus that I consider, at least in Latin America, as a nodal point of uncertainties that perhaps shape up as threats to 'fostering a lifelong learning culture' (Quane 2000: 1) - the political and economic context of the present learning environments in underdeveloped countries. I know I

am entering a complex area, especially given the fact that this debate is taking place inside an institution affiliated with a multilateral organization. I know the etiquette (or culture) of seeking consensus, especially in institutions connected to the UN.

However, it is exactly by studying the uses and abuses of proposals, recommendations, consultancies, and financing by the multilateral organizations in Brazil of the formulation and implantation of educational policies that I run the risk of being considered inelegant, touching a sensitive point. I formulate then my first question: is it possible to find creative and inclusive strategies and partnerships for fostering a culture of lifelong learning, without taking into consideration the theoretical, political and economic context that orients contemporary educational reforms in the underdeveloped countries?

In asking this question, I am indicating that I adopt the perspective that the product of the work of specialists and researchers, here magnified by the locus of their dissemination - a prestigious multilateral organization - participates sooner or later in the orientation of the local or national educational policies.

Conceiving of the social-policies as a State intervention in the negotiation of interests (or needs) expressed by different social actors, I am simultaneously accepting that the interests and needs that orient the State's options be expressed by the various actors, who comprise the social body, and that the responses of the State emerge from a process of successive choices that involve confrontations, conflicts, coalitions, pressures and counter-pressures. We are also accepting that there are many forces involved in this process of choice - the social segments, the technical-bureaucratic instances of the State, the Congress, the Presidency, the political parties, the unions, the social movements, the specialists and not rarely, specialists from the corporations and the multilateral organizations.

However, when I assume that scientific (or academic) knowledge constitutes one of the fundamental elements of negotiating social policy, I am not assuming that it is knowledge that should directly determine priorities in public policies. In this determination, knowledge should be instrumental in relation to the actors, since these options are political, resulting from an interplay of interests and pressures. This proviso seems important to me, since scientific omnipotence and manipulation have been and can be observed, pretending that academic knowledge in itself, charged with the aura of scientific neutrality, is unquestionable and can orient the correct choices, the absolute and universal of priorities and strategies for public policy. From this point of view, political decisions are disguised with the qualifier competent *technical decisions*, thus diminishing the bargaining power of the other social actors.

On the present world scene, especially in the Southern Hemisphere, the participation of specialists and their studies in establishing priorities, strategies and evaluations of educational policies has been magnified by the growing importance of

the World Bank in the area (Coraggio 1996). In effect, as Guiachoua and Goussault (1993) point out, beginning in the 70s, the field of research on social development began to be gradually occupied by the multilateral agencies, especially the World Bank. For these authors, such a change had important implications. It is these institutions who assure the collection, definition and analysis of statistical information or their instruments. It was they who introduced an Anglo Saxon predominance, with no counterpart. They also have a disproportionate budget and means of carrying out research and studies when compared to national institutions. They have economists and statistical specialists in micro-economic analysis who prioritize the empirical and are competent in establishing the models (scenarios, forecasts) that take on positions of importance in these institutions and national governments, making an interdisciplinary dialogue difficult.

Thus what Haas (cited in Melo and Costa 1995) called the epistemological community is constituted. It has as its main source of power the technical scientific authority, which sustains policy models. The dominant group has the information considered pertinent, the financial power and the means of influencing certain categories of social actors. It has important channels available for constructing the prevailing mentality and a repertory of arguments to support political decisions. Provisional and questionable analyses can take on the status of scientific truth, lending direct support to the taking of political decisions.

It is necessary then to bear in mind that in building the agenda of priorities for social policies, the social actors do not have equal negotiating power. This is particularly true for pre-school education and basic public education levels which involve the teaching of children, women (as mothers and teachers) and all the segments of the population, including the poor. Further, it should be borne in mind that the present social environment represents a conjuncture of world globalization where the countries of the South face the challenges of adjustment policies deriving from the new world economic order. Cutting social spending, flexibilizing work contracts, weakening the traditional spaces for political debate (and their replacement by the mass media) limit the power of participation and negotiation already limited by social actors deprived of political power (Arriagada 1999). Therefore, it seems necessary to me to pay attention to the theoretical options, policies and the underlying values incorporated in our analyses, interpretations and technical recommendations. It is also necessary that we do not lose from sight the political context of the present Learning Environments in Latin America.

We already have an extensive Latin American political production, which points out how policy for the social sectors (among them education) are subordinated to structural adjustment policies. This appears to constitute the main component of the lifelong environment in the underdeveloped countries today: 'social policy is elaborated for political economy, more than to continue it or compensate for it . . . its

main objective is the restructuring of government, decentralizing it at the same time that it reduces it, leaving the allocation of resources in the hands of a competitive civil society without State mediation' (Coraggio, 1996: 78). Thus the sense of public policy is altered without being able however to identify the correlation of forces among the social actors, even in the center of civil society. Thus, women, children, the poor, non-white people continue, with or without the mediation of the State, to be located on the pole of domination.

It is in the face of this analytical focus that I propose my second alert. I fear the view that what is lacking in order to be able to construct a learning society is just creative, inclusive ideas to be implanted worldwide. I consider that creative, inclusive ideas about lifelong learning - as in any field of social action- are not abstract entities on the theoretical, ethical, political and economic plane. Thinking of them as abstract entities - without explaining, for example, the strategies for implanting them, such as costs, sources of resources and possible impacts on the already implanted (and already socially hierarchical) educational systems - does not seem to me to be just an inoperable strategy, but it could constitute a threat to the ideas pursued.

I recognize that on an abstract level it make consensus possible when seated around a table of diverse members (or social actors). However, generic consensus only temporarily eludes the contradictions and dissension that end up manifesting in the concrete implantation of educational policies. A recent example comes from the agreements on basic education made during the World Conference on Education for All in 1990 in Jomtien. They were configured as a broad vision, including the principles of lifelong learning in an abstract or ideal platform, potentially applicable worldwide, and we can observe their transformation in the practice of educational reforms in process in Latin America (Chart 1).

Chart 1

BASIC EDUCATION

<i>Restricted View</i>	<i>Broad View (Jomtien)</i>
Directed to children	Directed to children, youth and adults
Realized inside the school context	Realized inside and outside the school context
Equivalent to elementary level or some established secondary level	Not measured by the number of years of study, but by that effectively learned
Guaranteed through teaching determined material	Guaranteed through the satisfaction of basic needs in apprenticeship/learning
Recognizes as valid a single type of knowledge; that acquired in the school context	Recognizes various types and sources of knowledge, including traditional knowledge
Limited to a certain period in a person's life	Begins at birth and lasts a person's entire life
Homogenous, equal for all	Differentiated (since basic learning needs are different for different groups and cultures)
Static, remains relatively unaltered	Dynamic, changes over time
Responsibility of Ministry of Education	Involves all the ministries and governmental instances responsible for educational activities
Guided by sectoral focuses and policies	Requires inter-sectoral focuses and policies
Responsibility of the State	Is the responsibility of the State and the entire society, therefore demanding the building of consensus and co-ordination of activities

I take the view, along with other intellectuals from the northern (Perrenoud 1999) and southern (Coraggio, 1996) hemispheres, that in the field of education, we are living through a time of collision between progressive and conservative trends in an attempt to face the uncertainties that mark our time.

Even if many share the idea that these times of uncertainties, of transformation, do not produce automatic changes in education, and thus it is necessary to change it, to improve its efficacy, efficiency and quality 'we are not fooled': 'for many, the objective is to preserve what has been acquired, spending less . . . everyone who thinks that school is too expensive and that taxes are very burdensome, puts themselves on the side of the conservatives . . . even those who are convinced that the school should adapt to "modern life" and "become more effective" are not ready to elevate the level of training and professionalization of teachers. They maintain new expectations in relation to the educational system, but refuse to admit that this cost even a penny more' (Perrenoud 1999: 18-19). Therefore, I consider that creative ideas, in order to be inclusive (understood as the search for equality or equity) should be accompanied by creative imagination in projecting the material conditions for their implantation in the present political-economic context.

In effect, creative ideas, historically originating from lifelong learning - such as non-formal education, education at a distance, continuing education - often have been important to undeveloped countries as strategies to reduce public investment in education for all. Thus, they are not incorporated as solutions complementary to the educational system, but as replacements, forging parallel hierarchical educational tracks (Petitat 1994).

This has been a focus of my research during the last few years: to accompany exportation processes and the importation of ideas, principles, proposals and models for lifelong learning in Brazilian basic education. Centering attention on pre-school education, for example, I learned how the model professed by the Faure Commission in *Learning to Be* (1973) - preschool education conceived as the first stage in lifelong learning - was incorporated by the Brazilian military government during its final stage. Supported in community participation, in part to reduce public investment, this occurred at a time when Brazilian society did not have the repertory of knowledge or political action to counterpose itself to the strong model proposed in *Learning to Be*.

Analysis of the adoption of this model (Rosemberg 1999) showed evidence of a formidable expansion in pre-school enrolments, especially of children over six years old (when they should have been in elementary school) in municipal care. However, the expansion of services brought some perverse impact, such as the inclusion of non-qualified teachers/educators into the system, even when Brazil had a reserve of trained persons, crystallizing a low quality model of early childhood education, and a teacher centered model of elementary education, which retains children over seven years old or more in pre-school, especially residents of the northeast (the poorest region in Brazil), blacks and the poor. An expansion via this model resulted in new processes of exclusion for women, poor children, blacks and residents of rural areas.

Paradoxically, apparently creative ideas such as those of the Faure Commission ended up generating processes of exclusion, of gender as well: it reinforced the idea that it is enough to be a woman - biologically or from primary socialization - to be a teacher of children. These ideas contribute to reinforcing an image of non-professional teachers who are therefore deserving of receiving reduced salaries.

In the present Political and Economic Learning Environment these ideas are again arising, along with others: neuro-science ('It is necessary to expand pre-school education because the child's brain is more flexible and faster'); it is necessary to respect cultural diversity in the underdeveloped countries, and the quality European models are not adequate for this; there should be recourse to the community to expand services with reduced investment (Young 1996).

I therefore ask: how is it possible to reduce even further the cost of basic education in Latin America? (Table 1). In effect, when one compares the costs for students at different levels of teaching, one can observe a fantastic gap between the OECD countries and our Latin American countries. If I observe the association (even though rough) between cost and quality, I ask myself how it is possible to establish the principles of a lifelong learning society when offering to the mass of the population an education that costs 30 times less than the education of the happy few found at the top of the social and educational pyramid?

For these creative strategies not to become a threat to strategies for inclusion, we should expand our agenda and our image of a learning environment. Beyond making explicit the values and political and theoretical orientation of our analyses and recommendations, beyond including components of the present adjustment policies in the Learning Environment, beyond making concrete the strategies of suggestions or recommendations. We should find creative solutions so that humanity reviews the economic, social and educational value of children: thinking about how to make changes so that the present learning environment becomes less adult centered!

Table 1

DÉPENSES PAR ÉLÈVE/ÉTUDIANT PAR NIVEAU D'ENSEIGNEMENT (US\$). POSITION DU BRÉSIL PARI MI 29 PAYS (OCDE + PAYS PARTICIPANTS AU PROJECT IEM), 1997

	<i>Précolaire</i>	<i>Primaire</i>	<i>Secondaire Premier Cycle</i>	<i>Secondaire Deuxième Cycle</i>	<i>Tertiaire</i>
<i>Dépenses Brésil</i>	820	859	921	1087	10791
<i>Moyenne OCDE</i>	3766	3769	4175	5312	10893
<i>Position Brésil</i>	26 ^{ème}	28 ^{ème}	22 ^{ème}	24 ^{ème}	8 ^{ème}

Source OCDE (2000, p.103)

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Addressing challenges on lifelong learning for girls

Mariama Sarr-Ceesay

Introduction

The rapid changes taking place throughout the world today call for knowledge to be continuously updated. In short, one has to keep on learning to be able to adapt to the changing forces at work in modern societies today, whether one is in the rich nations or in the least developed countries of the world. Education too, is changing fast. More and more opportunities for out-of-school learning are opening in all fields. Education geared to meet the demands of a swiftly evolving world can no longer be defined in relation to a particular time of life, such as the traditional distinction between adult education and the education of the young; or defined according to its specificity, for example vocational as opposed to general education. It is now becoming increasingly clear that the time to learn is *the whole lifetime* and that each field of knowledge, each form of learning, spreads into and enriches the other.

In the new millennium, education is so varied in its tasks and forms that it covers all the activities that enable people from childhood to old age to meet their basic learning needs: for survival, for improving the quality of their lives, for making informed decisions, etc. It is this *educational continuum, coextensive with life and widened to take in the whole society* that is now being promoted. This is education for all throughout life or lifelong learning. Of course the scope of learning needs and how they should be met in this lifelong educational continuum vary with individual countries and cultures and also change with the passage of time.

Education in sub-Saharan Africa

Compared with other regions of the world, sub-Saharan Africa is doing poorly in almost the whole continuum of lifelong learning. Basic education, which is the foundation of lifelong learning and the basis upon which countries build further levels and types of education and training, is on the decline.

While enrolment rates have increased globally over the last three decades, the situation in sub-Saharan Africa today is disappointing:

More than 42 million children are out of school. Some 60 percent of them are girls!

Almost 40 percent of African adults cannot read or write. Women are more affected.

In some countries, female illiteracy can reach 80 percent

Over 65 percent of children are not getting an education in countries where there is conflict

Explanations for this human tragedy abound. Tuition and other fees are beyond the means of the majority of families. Adolescent pregnancy and childbearing, which take girls out of school, are on the rise. Traditional beliefs about girls' and women's roles discourage investment in their education. Moreover, teachers are often poorly trained, schools inadequately equipped, and curricula biased and irrelevant. And in some cultures, the lack of separate facilities, the long distances to school and the predominantly male teaching staff constitute major barriers to girls' participation in education.

Why focus on girls?

First and foremost, the fact that two thirds of the educationally deprived young people are girls indicates the need for special focus on this group. In any case, the education of all children is essential for sustained development; and society cannot afford not to have all children, both boys and girls, develop their potential to become intelligent and productive citizens. Education brings social and economic benefits to both individuals and to their nations. A large part of the national budget in many countries in Africa is devoted to education expenditures. Despite this, there have not been significant improvements in female education in sub-Saharan Africa and yet, female education is now recognized as one of the most powerful forces for development in low-income countries. The family enjoys many benefits when the females at home are educated. Family health care and nutrition improve, and there is a higher rate of child survival and better physical and intellectual development.

Women with education marry later and are more likely to use a contraceptive method successfully, with the result that they have the number of children they want, when they want them. Each additional year of schooling for women is associated with a decline in infant mortality of between 5% and 10%. Higher levels of education result in higher aspirations for the family's children. Therefore, women's critical role in the

family can be a springboard for the positive effects of education that will help people now - and for generations to come (FAWE 1996).

What stands in the way of lifelong education for girls and women in sub-Saharan Africa?

To many it is indeed a paradox that even with the level of awareness reached today regarding the critical role of women's education in the socio-economic development of Africa, education is still not universally available in sub-Saharan Africa. What are the issues or obstacles that are keeping girls out of school? Why is it that fewer girls than boys are enrolling in schools and once enrolled, girls are more likely to drop out of school than boys? Why is it that their day to day achievement and examination performance are poorer than that of boys, and that fewer of them will opt for math, technical or science related subjects? It has been observed that the cause for this disparity is rarely a single factor, but rather an interplay of multiple factors rooted in the socio-cultural, socio-economic, policy and institutional climates prevailing in the different countries.

Addressing challenges in lifelong learning for girls

The Forum for African Women Educationalists (FAWE) was registered as a Pan-African non-governmental organization in 1993, with the goal of promoting girls' and women's participation in education in Africa, paying attention to both the quantitative and qualitative dimensions of the problem.

FAWE's focus is on action that ensures that girls:

- Have *access* to schools
- Do not *drop out*
- *Perform* well while in school
- Achieve to their highest ability

Below are some practical examples of the ways in which FAWE, in collaboration with a variety of NGOs and agencies like UNESCO, UNICEF, OAU, UNDP and UNECA, has addressed a number of the major obstacles standing in the way of lifelong education for girls in sub-Saharan Africa, and the challenges yet to be confronted.

Addressing economic obstacles

Poverty has continued to be the single biggest obstacle to education for both boys and girls in sub-Saharan Africa. Demand for education continues to be lowest in areas where poverty is deepest and most widespread - rural areas and urban slums. The relatively new concept of cost-sharing, fuelled by the unrelenting economic crisis in Africa and structural adjustment programmes (SAPs), and now compounded by challenges and threats such as HIV/AIDS and widespread conflicts and war, mean that already impoverished households have to dig deeper into their pockets to pay more for their children's education.

Intervention

FAWE has established bursary schemes through FAWE National Chapters. In collaboration with UNESCO, FAWE Chapters in Ethiopia, Ghana, Guinea, Kenya, Mali, Namibia, Senegal, Tanzania, Uganda and Zambia have ongoing bursary programmes.

Challenge

There is a need to expand these schemes to cover all countries in sub-Saharan Africa. There is a need to streamline their administrative management in terms of selection process, timely disbursement of the bursary fund and enhancement of methods of informing communities of the existence of the fund. National Chapters need to explore more actively alternative and innovative ways of raising funds to boost resources available for the bursary.

Poverty disillusion parents. As poverty continues to rise, unemployment, mass retrenchments, young people dying of AIDS, increasing crime among adolescents have all become common features in poor rural and urban communities. At the same time, parents see hordes of school dropouts, both male and female, engaged in all manner of low paying jobs - hawkers, factory labourers, domestic servants, market porters, car wash boys, drivers and conductors of public service vehicles, garbage collectors – and all are at least able to feed themselves and send something to their rural folk. Such parents start to wonder whether it does not make more economic sense for their children to be engaged in one of these low-paying jobs than to continue with an education they can hardly afford and whose lauded benefits have

become so elusive? For these people, it is crucial to rekindle their faith in the value of education.

Intervention

FAWE continues to produce advocacy material for this purpose. Films, songs, poems, sponsorship of walks, observation of Girls Education Days, sensitization of different stakeholders through workshops and seminars, are avenues FAWE has used to advocate for girls' education. The film 'Education is Important - the Girls Know It' was aired across Africa. The song 'Send your Girl Child to School' has been received well in many of the FAWE Chapters.

Challenge

Measures to reduce poverty must be tackled at the national level. Governments must expand economic opportunities for poor people by stimulating economic growth, strengthening the participation of poor people in decision making and reducing their vulnerability to sickness, economic shocks, crop failure, violence and natural disasters.

Addressing social obstacles

AIDS - the aggressive invader.

Today in sub-Saharan Africa, home to the 21 countries with the highest HIV prevalence, HIV/AIDS disproportionately affects the young, the poor and the powerless - girls and women in particular. In this region alone we find:

- More than 80 percent of the world's HIV/AIDS-infected women
- 87 percent of the world's HIV/AIDS-infected children
- 95 percent of the world's AIDS orphans

The majority of the orphans are left with no hope for education. Resources that could have been used for their education go to caring for the sick. Girls, more than boys, are likely to drop out of school to care for the sick or to bring up orphaned siblings. Or they end up as prostitutes out of despair. In some countries, parents are keeping their daughters out of school for fear they might become infected. In a number of countries, public spending is being shifted away from education to cope

with other aspects of the AIDS crisis, which means less funding is available to hire and train teachers to replace those who have died. Educational quality also suffers when fewer resources are available for classrooms and material. Discriminatory attitudes and practices towards AIDS-affected individuals interfere with the learning process, and high rates of teacher turnover and fluctuating numbers of students constrain educational planning.

HIV/AIDS threatens to undo much of what has been accomplished in education in the last several decades. However, education must be safe-guarded in the face of the AIDS crisis, as schools are key to reducing the impact of the disease. Countries' efforts to develop school-based programmes to control HIV/AIDS urgently require assistance from the international community.

Intervention

FAWE seeks to develop in today's young people, particularly girls, the ability to interpret and challenge the conflicting messages that come from their peers, adult role models, media and advertisements that put pressure on them to pursue lives of pleasure and to experiment with sex. The aim is that girls develop skills that will equip them to know how to analyse a situation, how to evaluate the element of risk that it contains, and how to extricate themselves before they succumb.

The important empowerment programmes FAWE is supporting include:

- Creation of FAWE Clubs in secondary schools now in Ghana, Sierra Leone, Chad, The Gambia and Burkina Faso. FAWE has supported establishment of guidance and counselling desks within schools to help girls not only in their day to day adolescent problems but to motivate them to cultivate a better self image of themselves.
- In the University of Dar-es-Salaam, FAWE supports the project TUSEME (Let us speak out), whose goal is to empower girls to analyse, speak out and work out solutions to problems that hinder their social and academic development

Challenge

Side by side with empowering programmes, all countries must, as a matter of urgency, be supported to implement education programmes to combat HIV/AIDS. Education programmes and actions developed in Uganda, Zimbabwe and Senegal can be used as guidelines.

Cultural practices continue to place a price tag on girls

Although research in the last three decades has established the value of educating girls, in most of rural sub-Saharan Africa, girls are still viewed as an important source of family income. Institutions like bride price, polygamy, motherhood and fines for adultery make the economic value of girls, particularly in rural areas, remain high. As poverty increases, this value takes on a significant meaning, particularly as girls approach puberty. In such an environment, expected additional household income often takes priority over education of the girl.

Intervention

FAWE's newly initiated regional programmes dubbed 'Centres of Excellence' are among FAWE's responses to the above challenge. These are schools where FAWE is utilizing the best options and innovations in overcoming barriers to girls' education, identified and packaged in the course of FAWE's seven years of improving and promoting girls' participation in education in Africa. For example, the Kenya Centre of Excellence is located in a region where forced early marriage is practised and girls' education is given very little value. Among other interventions, this centre serves to rescue girls from unwanted marriages and helps them to take legal action against those who force them out of school.

Challenge

Establishment of at least one Centre of Excellence in each of the 31 FAWE National Chapters.

Female genital mutilation (FGM):

FGM is practised in nearly 30 African countries and among a few minority groups in Asia. In Africa, the prevalence rate ranges from around 5% in the Democratic Republic of Congo and Uganda to 98% in Djibouti and Somalia. About 75% of all cases are found in Egypt, Ethiopia, Kenya, Nigeria, Somalia and Sudan. Though perceived as a ritual that upholds the value of chastity and improves a girl's prospects for marriage, FGM violates the human rights of girls and women because it involves the removal of healthy sexual organs without medical necessity and has detrimental - sometimes dire or even fatal – long-term physical effects, and very

serious psychological consequences. The procedure also breaches the human right to health and bodily integrity.

Intervention

FAWE has supported sensitization and education programmes for parents, communities and girls themselves on the dangers of this practice, and commissioned studies to throw more light on it. FAWE has also established Centres of Excellence where, within the boarding facilities provided, girls are protected from this harmful practice.

Armed conflict in Africa

Within the last few decades and, in particular, the closing years of the last century, Africa has witnessed an alarming increase in the number of outbreaks of armed conflicts and internal strife in a wide region of the continent. Countries such as Algeria, Angola, Burundi, Eritrea, Ethiopia, Guinea-Bissau, Liberia, Mozambique, Rwanda, Sierra Leone, Somalia, Sudan and Uganda have experienced devastating and traumatic periods of internal conflict that have destroyed the social fabric of the countries and left communities torn apart. In Liberia, where a vicious 7-year-long war raged until 1997, as many as 15,000 children, some as young as six, served as soldiers. Many of these boys were considered hard-core combatants who had committed atrocities even against their own families.

Causes of conflicts in African situations, whether at home, within the community or across borders, are complex and intricate. They have their roots in denial of rights, poverty, social tension, dictatorships, powerlessness and struggles for power and control of resources. Whatever their cause, these conflicts exact a heavy toll on the lives and well-being of all people, particularly women and children. The age-old conventions of protecting women and children in war situations are glaringly absent.

Intervention

FAWE through its National Chapter in Sierra Leone played a major role in promoting peace and running emergency educational, counselling and feeding programmes for thousands of displaced and refugee children in Sierra Leone. Out of this experience, FAWE in collaboration with UNESCO, are in the final stages of producing a training module on the development of a culture of peace to be used widely across Africa for promoting peace.

Challenge

Incorporation of education on a culture of peace in all school curriculum and in all forms of learning in each country.

Teenage pregnancy:

Across the African continent, sexual relations start early, and by age 15 a majority of young people are sexually active. As a consequence of these relations, sub-Saharan African countries are witnessing an alarming increase in education wastage, particularly among girls, through childbearing, abortion complications and the HIV/AIDS epidemic. On average, 20 percent of the female adolescents in most countries in sub-Saharan Africa give birth every year. Studies in Kenya have shown that by age 20, about 21 percent of Kenyan adolescents have had at least one child and that 8,000 to 13,000 girls drop out of school each year due to pregnancy.

Intervention

FAWE convened a Ministerial Consultation on Adolescent Pregnancy and Dropout in 1994 in Mauritius and a follow up in Dakar in 1997. Following these meetings, up to nine countries now have reviewed their education policies with special focus on dropping out and re-entry policies especially of ex-pregnant girls. This initiative is expected to be adopted by all countries in sub-Saharan Africa. There are now a wide variety of activities and strategies in operation in different countries in Africa aimed at reducing pregnancy-related school dropout. These include guidance and counselling services in schools: clubs of various types whose role is to instil good morals in young people and to teach them about reproductive health; peer education groups, which have been very effective in counselling youth in many countries in Africa; and family life education (FLE) in schools that incorporates reproductive health and sexuality.

Challenge

Adoption of the re-entry policy by all countries in sub-Saharan Africa. Establishment of skill training institutions for teenage mothers who do not go back to formal schooling. Concrete action against men/boys responsible for school girl pregnancies.

Addressing institutional obstacles

Rural-urban education gap:

Demand for education in sub-Saharan Africa continues to be lowest in rural areas where poverty is more endemic and widespread, and where opportunities for income generation are limited. Students in rural areas have a great deal to contend with. Often they must travel long distances to school. They may lack essential textbooks and basic learning equipment. They cannot afford to participate in costly extra-curricular activities, including extra coaching that has become so popular in most countries. Their school attendance is frequently interrupted by temporary suspension for non-payment of fees, or punishment for arriving at school late or being in tattered uniform. These hardships discourage the students, who lag behind in their academic work and are made to repeat or drop out of school.

Intervention

Through an innovative project on strategic resource planning (SRP), FAWE is helping countries in sub-Saharan Africa to start to manage their allocated education resources more efficiently by targeting them to well -defined goals and programmes in education throughout a country so that there is equitable sharing of resources. To date, SRP has been undertaken in nine countries.

Teachers' morale

Teachers' qualifications, experience, competence and attitudes play a critical role in shaping the process of teaching and learning. Findings from various studies have shown that schools in Africa, particularly in rural areas lack the full complement of qualified teaching staff. Inadequacy in numbers and training is compounded by rampant absenteeism and lack of motivation by those around. Some teachers leave their classrooms to engage in other income-generating activities to supplement their poor and irregularly paid salaries. Ill health and eventual death from HIV/AIDS is decimating the teaching force in many areas. Clearly, significant improvement is necessary in the overall status and welfare of teachers, in order to boost their morale and reinvigorate their enthusiasm and commitment toward their work.

Interventions

FAWE has publicized best practices in various countries in improving teachers' welfare such as promotion of good and secure accommodation for women teachers in rural areas. A case in point is Zambia where gender-friendly transfers of teachers have been the policy.

Challenge

Alternative and innovative ways are required to enhance the status, morale and professionalism of teachers. New strategies are required for training and retaining good teachers. Their training should now be done with their new role, of preparing students for the emerging knowledge -based and technology-driven economy, in mind.

Deteriorating facilities

The physical state of government schools in a country is a reliable indicator of the economic wellbeing of that particular country. With the ongoing economic crisis in sub-Saharan Africa, many schools, particularly those in rural areas, are in a pathetic state. Buildings are run down, there is shortage of furniture, equipment and learning materials. Basic amenities like water, electricity and sanitation are lacking. Under these circumstances, quality of teaching and learning drops and the gap in academic performance between urban and rural schools continues to widen.

Intervention

Publicizing what works: FAWE has actively continued to identify, document, publicize and disseminate innovative projects which have had an impact in reducing the rate of dropout of girls from schools. For example, the 1997 Agathe Uwingiliyama Award went to Eyayo Secondary School in Ethiopia for its affirmative action in curbing dropout of girls from school. The school board came up with a bold strategy to improve accommodation, introduce income earning activities and tightened security in and around the hostel for girls.

Lack of role models

In rural areas, where transport and communication are poor, the school provides the only setting in which children can meet authority figures other than their parents, and learn about the world that lies beyond their local community. For girls, this is usually the only place where they see educated women at work and the only opportunity they have to learn that the gender roles existing in their village can actually be challenged and changed through a good education. This suggests the importance of increasing the number of female teachers in schools in rural areas.

Interventions

FAWE has supported Role Models programme in schools by sponsoring visits and production of profiles of women achievers, particularly those excelling in male-dominated fields.

Challenge

Implementation of this programme in all schools.

Addressing policy obstacles

Persisting gender gap in education:

A large part of the national budget in in many countries in Africa is devoted to education expenditures. Despite this, there have not been significant improvements in female education in sub-Saharan Africa.

Intervention

Advocacy by FAWE through Ministerial consultations, SRP consultations, education conferences etc to urge governments to:

- Direct available funds to strategic activities that keep girls in schools
- Carry out careful national analysis of the extent and causes of dropouts
- Design and implement appropriate and effective policies and strategies that bring about required changes

Through FAWE's advocacy, a number of countries have reviewed their policy on dropout and teenage pregnancy. FAWE has publicized the establishment of policies in Malawi (1994) and Uganda (1997) for free primary education.

Challenge

All national governments will need to review their education systems and take affirmative action if the education gap between girls and boys on access, retention and completion is to be narrowed. Countries like Uganda, Malawi, Zambia and Benin have taken concrete steps in this direction

What then must each of us do to help promote lifelong learning among girls?

Factors shown to be responsible for girls dropping out of school will only be of benefit if all levels of stakeholders - policy makers, schools, community, parents and the young people themselves - are sufficiently sensitized to appreciate the advantages of keeping girls in school, and are therefore ready to exercise their respective roles. For example, giving bursaries to girls from poor homes will be of little benefit, if the only schools available are far from home and there are therefore fears of insecurity; or if the girls are expected to remain at home to look after their siblings; or if the practices in their community call for early marriage and motherhood; or if the girls themselves are not sufficiently assertive to insist on their rights to continue with an education of their choice. To be able to curb dropping out of girls from schools, therefore, all of us must be involved. Below we give a summary of what each stakeholder should do to contribute to the promotion of lifelong learning for girls:

As National Governments, we must:

- Foster economic growth that benefits the poor.
- Lower the direct cost of schooling by establishing bursary schemes, waiving or reducing fees for girls and supplying textbooks.
- Lower the opportunity cost of schooling by establishing flexible school hours, having childcare facilities near the schools, development of time and energy saving devices.

- Strive to eliminate all forms of gender discrimination from all learning situations, including curriculum, textbooks, classroom interactions, use of space and use of all resources.
- Expand access and bring schools closer to communities. Establishment of satellite schools and use of multigrade and double shift classes has improved access in rural areas.
- Increase and improve boarding facilities for girls especially at post primary levels.
- Increase the proportion of government public expenditure allocated to education. This, however, must be accompanied by a serious commitment on the part of government and all other stakeholders to promote and support girls education, otherwise it will not produce the desired impact on access and retention. For instance, Zimbabwe, Malawi and Ethiopia by 1998 were spending over 50 per cent of their public current expenditure on primary education. Whereas Zimbabwe and Malawi registered close to 100 per cent enrolment in primary schools, in Ethiopia, only a third of its primary school age children were in school, with the ratio of girls being even lower (EFA Status and Trends: Wasted Opportunities, UNES 1998).
- Provide culturally appropriate facilities. Schools must conform to the communities' cultural standards. For example, in parts of North Africa and Africa's Sahelian Region girls' performances improve if they can attend single-sex schools.
- Increase the pool of female teachers especially in those rural and traditional communities where girls, after puberty, are prohibited from being in contact with males until after marriage. Recruitment procedures that give priority to females in a community, offer incentives such as housing, training, transport allowance and other stipends can be used to increase the pool of female teachers in girls' schools.

As Parents, we must:

- Support our daughters in their studies by not placing too much demand on the time they are required to be in school or doing their homework. Failure to keep up with other children in class leads to frustrations and may lead to dropping out of school.
- Abandon gender discrimination and outdated traditions such as circumcision and other initiation rites that may be viewed as now giving a girl the right to start participating in activities that will lure her from school.
- Actively take in interest in the participation and performance of our daughters in school that motivates them to work hard and allow no room for thoughts of ever wanting to abandon school.

As Community, we must:

- Understand and recognize the rights of the girl child, in particular, the right to an education and the right to be protected from threats to her well being such as early marriage, sexual molestation and circumcision.
- Ensure the safety of our daughters by collaborating with the civic and political establishments to provide schools near homes.

As Schools, we must:

- Encourage girls, to participate fully in classroom and school activities.
- Prevent any form of sexual harassment or use of words, gestures or actions that demean their dignity. Girls are more motivated to learn and to persist in education if they are treated well, given leadership roles and responsibilities and if the teaching methods are of high quality and of relevance to them.
- Look after the welfare of teachers by paying attention to their needs such as professional development programmes, job advancement, proper working hours, provision of health programmes, regularity in paying salaries, etc. These go a long way in boosting teacher moral and improving interaction with pupils and therefore their retention in school.
- Institute empowerment programmes for girls to help them build up confidence, enhance their self-esteem and assertiveness.

As FAWE and Agencies interested in education, we must:

- Continue to sensitize the public on the social and economic benefits of educating girls.
- Undertake and support innovative programmes that increase girls' participation in education.
- Create and sustain environments that encourage different stakeholders in education to effectively implement programmes that promote girls' education.
- Develop and sustain mechanisms of monitoring policies, practices and programmes that influence girls' education
- Develop and support educational programmes for the empowerment of girls for effective participation in the social and economic development of their nations.

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Questions of agency and the Internet: a new way of learning

Gillian Youngs

Introduction

This paper discusses the role of information and communication technologies (ICTs) in changing the learning environments within which an increasing number of people around the world are operating. It draws on a range of theoretical, practice-based and pedagogic work I have been involved in, relating to the introduction of ICTs in a range of settings. In making some of its points it cites different writings, including my own, regarding the specific functions of the Internet, actual and potential, in contributing to new forms of communication and learning. The main purpose of this short paper is to reflect on ways in which ICTs may be considered to transform perspectives on learning – individual and shared – in ways that can challenge, for example, existing hierarchies of: knowledge; control and distribution of information; knowledge communities.

The paper does not seek to make grand claims and all of its arguments are informed by practical community and pedagogically oriented work the author has been engaged in. This is an important point because the application of ICTs in social senses is, relatively speaking, in its infancy, when compared to other more longstanding forms of communication such as telephone and fax. If there is an ICT *revolution* then it is only in its early stages and has yet to touch in any depth the majority of the world. Therefore its social story is only beginning to unfold. What has happened so far may provide helpful pointers towards future possibilities but they are best regarded as just that and no more. They by no means indicate the full potential of ICTs. As yet we can take it that much is still to be imagined and enacted on this front.

This discussion is divided into three sections. The first links the nature of ICTs to future thinking about agency. It argues that the fusing of informational and communicative power provides opportunities and tests, some of which are reformulations of older circumstances, and some of which appear to be quite new. In offering access to more information from more sources, more readily, ICTs place greater emphasis on the skills needed to navigate, compare and critically assess information. The notion of an information-rich society has many meanings behind it. The second section considers questions of individual and collective access to

information and paths to knowledge. It argues that ICTs deepen possibilities in both individual and collective contexts and, again in both, facilitate new learning strategies, some of which are integral to the building of new linkages across political, societal and cultural boundaries. The third section focuses on the Internet and its horizontal (versus hierarchical) structures, and explores the implications of *learning adventures* via ICTs and their multi-path patterns and implications.

The nature of ICTs

I have captured the nature of ICTs elsewhere as follows:

Cyberspace undoubtedly brings a new era of social interaction. *On line* it is possible to be in touch with audiences across the globe, offering them extensive information on individual concerns or group campaigns, and soliciting responses, even from strangers, in distant locations within minutes. The distinctive technological advance which the Internet symbolizes as the central motif of the information society is the fusion of information *and* communication technologies to combine the power to communicate in depth and at speed. There simply is no comparison, for example, between the capacity of the fax machine to transmit information through cumbersome hard copies page after page and the megabites of data which can be uploaded and downloaded via the Internet in minutes. ICTs mean that it is possible to have cyberneighbours/friends/colleagues with whom one chats/works daily or hourly by email and in this sense they truly give meaning to the now familiar cliché of the global village (McLuhan, Fiore and Agel 1997).

It is helpful to think of the Internet as a man-made environment because that prompts us to focus on the kind of 'village' that it permits: one which facilitates communication and even intimacy without physical presence. This is quite a different sense of village to traditional notions which are highly dependent on a defined and usually small geographical location with a noted close physical proximity between its main features and the members of the community itself. In contemporary times we need to be working with different senses of proximity some of which are totally dependent on communication via ICTs and some of which involve usual notions of social interaction through physical presence (Tomlinson 1999). Close contacts of professional and personal kinds may well be generated by one or other means as well as a combination of both.

So how does cyberspace change the social world we live in? It clearly expands the scope of communication geographically. It also speeds up the potential for communication and makes a greater density or intensity of communication over shorter periods of time possible. And it allows larger amounts of information than ever before faster than ever before to be posted (as on websites) or transmitted from

one address to another. So the ways in which it helps to shrink the world are equally about the amounts and the nature of information as about the actual process of communication of it. (Youngs forthcoming a)

So when we think about the nature of ICTs it is important to conceptually focus on the relationship between their communications and informational dimensions, and the diversity of meanings that are embedded in fusing them so effectively and efficiently. Furthermore, it is important to think in terms of our relationship to those different dimensions and meanings. There is a great deal to unpack and we are only just beginning to engage in this process. Such beginnings are central to understandings of the exact nature of the current communications revolution.

One aspect that has been highlighted for me in my teaching on the Internet in a UK university setting is the priority which needs to be placed on the area of *agency*. Mass use of the Internet is a comparatively new development in the UK context. Students are familiar with the computer as a word and data processing tool but this does not necessarily mean we can take for granted that they understand its full function as part of the new ICT environment. One aspect here is the Internet as a source of information. Partly because comparatively few students at this stage will be information *providers* themselves on the Net, their sense of the diversity of motivations behind such provision is likely to be limited. My experience has been that among those who do use the Net they tend to do so for accessing different kinds of information and services. Their awareness of, and interest in, the full sender/receiver relationship, is likely to be limited or at least to be in need of much greater development.

Seminar discussions have touched on the relationship between perceptions of the television and the Internet-via-computer as screen-based information providers. The function of the television as a predominantly *passive* medium is key. Agency on the part of the viewer is not required beyond the pressing of a few buttons and, importantly, the devotion of time to consuming the information and entertainment provided. Individual and collective reactions to, and critical thought about, programmes can be considered an influential part of this process of consumption. Television culture has become a global phenomenon during the 20th century. It is the most everyday, entrenched, visual communications culture.

Efforts to integrate Internet use into television use can be interpreted as part of a process of *popularizing* the Internet, making it more accessible in terms of the dominant televisual setting. There are socio-spatial considerations here, the television having an established place in the home, generally as a focal point of the shared leisure space among others. The Internet has helped boost the growth in home ownership of computers, but these, for obvious reasons, offer limited challenge to the *established place* of the television, in immediate senses. Shared family use of

computers, in accessing the Internet for various reasons, including for assistance with homework assignments, could generate similar *social* identification to the television with, undoubtedly, some distinctive new characteristics.

The contrast of *active* rather than *passive* approaches to the medium of information provision are central when considering the move to an Internet from a television culture. Let's take the news as an example. In the context of television it is a case of tuning to the news programme or programmes of choice and taking their menu of stories. In the context of the Internet one can pursue a story one has a particular interest in, seek out different sites relevant to it, including those of organizations or individuals involved or affected, and different news media covering it. It could even be possible to email different players in the story to find out further information, join relevant web-based petitions, discussion groups or activist movements.

The Internet offers scope for proactive approaches at various levels of intensity that can be considered revolutionary in communications terms. But it does require a completely different mindset from the fairly passive approach of 'let's tune in to the BBC nine o'clock news as usual folks'. The points made here are not intended to deny of course the major role played by such traditional news providers in news provision on the Internet. But with a growing number of organizations and individuals using the Internet to communicate *directly* with the public, the *mediating* role of news organizations is no longer as encompassing as it was.

Multiple sources of information on the Internet allow us to seek out as much detail as we want, within the limits of availability, rather than settling for what is *delivered* to us via the traditional news media. This is partly a matter of time too but at least the choices and possibilities are being opened up. Time is a factor in more random surfing of the Net, to just discover the kinds of sites and information that exist and may interest you. Televisual culture has legitimized hours spent passively consuming material delivered to the viewer. The Internet requires a more active approach to such consumption and offers opportunities for self-selection as well as, in common with television, a lock on to favourite sites that can be visited on a regular basis.

The move from a passive to a more active informational environment puts more emphasis on the need for critical skills in relation to knowledge processing. These involve, for example, the capacities to assess: the quality of information and sources; distinctions between particular sources and the nature of the information they are supplying; and the usual questions of *bias* associated with contrasting standpoints. These kinds of areas have traditionally been taken care of *on our behalf* by the media and other experts, and to some degree, will continue to be so. But as an increasing

number of us become more proactive in gathering information, education about how to do so effectively becomes increasingly important.

In recent years the focus in higher education has been on the role of teachers as facilitators in the knowledge process, and I am becoming increasingly conscious of the ways in which the Internet pushes this development further. On some levels it challenges anyone who makes claims to be a dispenser of knowledge. To illustrate, I can introduce a theme in a seminar, and may have given a list of readings relevant to that topic. We may cover some of the readings and discuss and assess some of the arguments and evidence presented therein. Students can then leave the seminar and use the Internet to undertake research that will expand upon, and possibly conflict with, aspects of what we have discussed.

They may find further references, relevant articles or papers in their full downloadable text versions, details of other academics specializing in similar areas and extensive bibliographies which they recommend, perhaps whole websites and discussion groups devoted specifically to the topic under consideration. In making this point I have no wish to argue that the role of the teacher is defunct, far from it. But I do wish to stress that in an environment where extensive sources of information can be relatively easily and quickly accessed, the context for that role is changing. There is as much emphasis on the breadth of sources of information as on identifiable pockets of it that can be authoritatively delivered as *knowledge*.

Information is generally regarded as raw data in contrast to knowledge, which refers to information that has been processed and understood. Systems of knowledge, such as the disciplines of science and philosophy, imply highly ordered and incrementally developed fields. Application is also a major theme in relation to knowledge. Processing information involves critical faculties and the ability to identify the meanings carried by material associated with particular sources. It also draws attention to the importance of cross-checking so-called facts and data, the need to weigh up conflicting arguments against one another and to identify the key and subsidiary issues in any subject for debate. The development of such critical faculties has been central to the goals of education, particularly in its most advanced forms. The Internet era, where new informational vistas are opening up to different generations in the contexts of work and leisure, signals the relevance of these faculties to lifelong learning.

Learning together and alone

The Internet offers an interactive learning environment that goes far beyond traditional study through books and classroom exchange. In this sense it guarantees a more dynamic (as well as proactive) approach to learning if its facilities are utilized

to the full. Much of my awareness in this regard has come from my involvement in the UNESCO-Society for International Development Women on the Net (WoN) project. This brought together an international group of technicians, researchers, activists and development practitioners, to exchange experiences and assess the potential of Internet use for women and their communities (Harcourt 1999). The project intended to cross as many boundaries as possible: national; professional; cultural; theory/practice etc.

Through our listserv discussions we began to explore the meanings behind such boundaries. We were able to bring into some kind of connection our individual understandings of them, understandings to certain degrees rooted in, or associated with, the collective contexts (for example, professional, cultural) of our lives and backgrounds. These are the contexts from which we communicate and in which we gain our different forms of knowledge. There were frequent encounters during listserv exchanges that illustrated misunderstandings, misreadings and confusions that can arise from attempts to communicate. The listserv space itself served in this way to expose the kinds of boundaries that exist in such circumstances.

These boundaries and understanding what they are based on, and different ways they might be mutually negotiated, are at the heart of Net-based virtual experience. Openness, interest and sensitivity are positive qualities in negotiating such virtual politics, or at least that is one of the major lessons I began to learn in great detail in the practice of WoN. 'Mediating borders' (Harcourt 1999: 3) may have featured among the aims of the project but it also, interestingly, became central to the project's own problematics. The experience of such more challenging aspects of the internal dynamics of WoN has been sometimes far from comfortable. One soon learned that this was no place for assumptions and that one simply did not know necessarily when or how a 'boundary' of one kind or another might be encountered and what the result of the exchanges in such circumstances might be. For example, language became a point of intense debate. 'The group began . . . to question quite seriously its use of language, the sense of inclusion and exclusion and the possibility of opening up a new way of dialoguing that could allow for diversity while building solidarity and identity' (Harcourt 1999: 7). (Youngs forthcoming b)

The virtual spaces that we occupied as part of the WoN project prompted new awareness of and opportunities for learning about self-reflexivity. They demonstrated to me the extent to which in meeting others in cyberspace we can be confronted with ourselves afresh, with our assumptions and their implications for our communication with others. As well as opening up access to vast realms of information, the Internet also opens up access to people in other places, cultures, and work settings, to their interpretations and understandings of various events and processes, and of cyberspace itself. Obviously, one of the main themes of the project was the exploration of the social sitings of cyberspace, and the richness of contrasts in

orientations towards it. This excerpt from a contribution from Kekula Bray-Crawford , an indigenous woman activist with a technical and lobbying background, indicates how such an exploration could touch as deeply on historical questions of power as on the immediate dynamics of Net conversations.

I need messages loaded with academic terminology when it is thick to [be interpreted] for me in my own poetic language so I can understand where the discussion or people themselves are coming from. This does give life, appreciation and light to a world I thought was without. The general concern I speak of is the boundaries academia has presented throughout the colonial period of our existence as indigenous peoples. It was our very first encounter across the board with colonial settlers which were missionaries. Their Bible was the academic imposition (because it was taught like a classroom) upon traditional spirituality, practices and belief systems, coupled with a new language. These impositions created a negative IQ upon native thinking and immediately what were ancient astronomers became heathen and unintelligent. That is the origin of the thought and becomes the neocolonial framework today upon which a Western system is built.

On this same timeline now we have encountered Internet technology which creates the very first window to escape that imposition. My own thoughts only. Where thinkers meet scholars, actors activists and indigenous, Western level communication, creating a new level to the political, social, economic and cultural framework – now crossing regions. (Harcourt 1999: 8-9 [Harcourt's insertion]. See also Bray-Crawford 1999)

Learning adventures and ICTs

In a number of ways, including in this last quote, the discussion so far, has outlined the degree to which ICTs actually open up debate about the whole nature of learning itself. The horizontal structure of the Internet disrupts to some degree the traditional vertical hierarchies within which most lives have been lived to date: those of state, national media, religious institutions, colonial and postcolonial structures, multinational corporations etc. These remain of course, and are in many ways instrumental in shaping the ICT revolution and many of its possibilities. But the Internet also allows communication, connection and political, social and cultural movement beyond those familiar frameworks. It enables reconnection with them on the basis of other new cross-boundary linkages whether personal, political, social or economic. Most learning has taken place, and to a significant extent still does, within vertical hierarchies, particularly those of the state and church. This is likely to continue at least in the foreseeable future, but the Internet expands the learning environment so that new explorations, connections and information gathering can be

achieved that can contribute to the development of expanded critical faculties and understanding.

There are many arguments in favour of working towards a wired world where there is universal access to ICTs. Economic ones are often given a priority and this is not surprising. But the application of ICTs to enhance lifelong learning opportunities clearly has equal and associated power. The WoN project taught me the degree to which this not only concerns the development of individuals and communities, their range of choices and possibilities. It also concerns the way in which different individuals and communities perceive and understand each other across the wealth of national, cultural and social boundaries that divide them. In this respect, I have come to view the Internet as a complex place of discovery in very practical terms.

The ways in which societies, individuals, groups and communities develop uses of the Internet will fashion how and what this complexity produces. This is a somewhat daunting and fascinating learning curve, or set of learning curves, in its own right. As suggested above, it allows us to revisit history as we think about the future. For example, I have argued elsewhere, that women's use of cyberspace can 'draw directly on long-established feminist political thinking about the potentially transformative influence of individual and collective consciousness-raising' (Youngs 2000: 12).

Isolated within patriarchal conditions of conformity, a woman's individual thoughts against such conditions, while silenced and not shared with others, have limited potential either for herself or others. Acts of self-expression and communication are understood as intrinsic elements of liberation in feminist practice, hence the importance of creating 'safe' environments such as women's groups of different kinds. These provide usually temporary opportunities for abstraction from normalized patriarchal conditions, from the disciplining which leads to conformity in such circumstances, and from the threat of exclusion which inhibits 'forbidden speech' (Foucault, 1984, p. 113). There is, of course, no suggestion that such abstraction is ideal or complete in any sense, but it offers at least a challenge to dominant conditions which can lead to different, empowering kinds of knowledge sharing. 'Empowering' has multiple meanings here: the strength that shared reactions and circumstances can give to individuals to take their own thinking further, to cope better with their conditions of existence, and to reach out to others in similar circumstances. These are some of the elements relevant to understandings of liberation as it has been mobilized in feminist discourses challenging patriarchal assumptions and practices. This liberation directly links issues of individual consciousness to group (women's) consciousness, including the identity effects of private/public boundaries and the constraints which result in thought and practice. Transcending the embedded assumptions of institutionalized private/public divisions and understanding their importance for negotiation of questions of power in social contexts are central. Fundamental to the collective as well as individual approach to such consciousness-raising is an understanding of the importance of communication among women, of bringing them together and disrupting the patriarchal conditions which separate them under conditions of public/private divides. (Youngs 1999: 62)

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