

APPENDIX 1 – STRATEGIC POSITION OF THE AGREEMENT

UNESCO is participating in the building of an international strategic partnership to bridge the digital divide and establish open and inclusive knowledge societies. It seeks to use Information and Communication Technologies (ICTs) and information to accelerate social and economic development, acting through the collaboration of a range of stakeholders. The challenges of poverty reduction, achieving the Millennium Development Goals and addressing the disparity between the “information haves and have nots”, are enormous.

In this context, UNESCO recognises the significant contribution that can be made by the private sector to these strategic objectives and is therefore actively promoting and building relationships with a variety of private sector stakeholders, including various companies in the ICT industries. UNESCO's intention is to mobilise partners from civil society and, in particular, from the private sector to achieve its strategic goals and programme priorities.

The mobilisation of partners from the private sector is advocated by the UN ICT Taskforce. It was also endorsed by the World Summit on the Information Society (“WSIS”). This produced a Declaration of Principles and a Plan of Action, articulating a common vision of the scope and complexity of commitments and actions necessary to address the digital and knowledge divides. More particularly on the issue of software and access to knowledge, Paragraph 27 of the Declaration states:

“Access to information and knowledge can be promoted by increasing awareness among all stakeholders of the possibilities offered by different software models, including proprietary, open-source and free software, in order to increase competition, access by users, diversity of choice, and to enable all users to develop solutions which best meet their requirements. Affordable access to software should be considered as an important component of a truly inclusive Information Society”.

And Paragraph 10.c of the Plan of Action provides:

“Encourage research and promote awareness among all stakeholders of the possibilities offered by different software models, and the means of their creation including proprietary, open-source and free software, in order to increase competition, freedom of choice and affordability, and to enable all stakeholders to evaluation which solution best meets their requirements”.

Under its Medium-Term Strategy (2002-2007), UNESCO's responsibilities include the following: acting as a clearing house, in gathering and sharing information knowledge and best practices in its fields of competence; identifying innovative solutions and testing them through pilot projects; building human and institutional capacities in its fields of competence; and playing a catalytic role for international and development cooperation.

In the area of education and learning, Microsoft prioritizes its support for the use of ICT to close the digital and learning divides for those who have been marginalised from the education process as a result of gender, geographic circumstance, poverty and other factors. Microsoft believes that ICT could make universal primary education an achievable goal, particularly through teacher training and development, dispersal of high-quality teaching resources, and remote schooling and online interactive learning. Microsoft considers that ICT

could prove to be equally important in generating a greater supply of trained teachers and enhancing student learning and improving life chances.

In the area of community access and development, Microsoft considers that knowledge and information sharing through the internet by every country and every community in the world is of vital importance for the economic participation, social cohesion and enrichment of linguistic and cultural diversity of mankind. In the area of cultural and linguistic diversity, Microsoft will continue to support strategies to put ICT to the service of preservation and resurrection of languages in danger of disappearance. Microsoft believes that it is important that all segments of society have access to software tools in their mother language.

UNESCO and Microsoft believe that mainstreaming ICTs into educational and community development programmes in developing countries has great potential for improving quality, increasing access to and reducing costs in education and training, promoting digital inclusion and, eventually, bridging the digital divide.

projects in 78 countries across the globe, developing for community learners, a multilingual IT skills training curriculum series in English, Spanish, French, and German, Simplified Chinese, Russian, Arabic, and Brazilian Portuguese.

GLOBAL SUPPORT NETWORK

UNESCO's expertise in ICT for development as part of its Multipurpose Community Telecentres programme and its local level experience in rural communities of five least-developed African countries (Benin, Mali, Mozambique, Tanzania and Uganda) and its support to the global support network, will result in a network that effectively meets the needs of community-based ICT. To this end, UNESCO will be included in the partnership, which will be announced later this year, including Microsoft's, UNESCO's and IDRC's 5-year commitment.

DIGITAL PIPELINE

In developed countries, the computer refurbishment industry is driven by the continual replacement of technology and, in the EU, the new EC WEEE Directive. However, refurbishing computers has associated costs: transportation (both for collection, screening and delivery), inventory management (asset tracking for refurbishers and/or original owners), sorting, testing, re-assembly (compiling a "unit" of CPU, monitor, keyboard, mouse, etc.), testing and component repair, software re-installation.

Refurbishment of redundant computers has taken place worldwide for many years as enterprises dispose of functional equipment during upgrade cycles. In addition, most of these computers are sold for re-marketing or recycling activities and a few number of them are being reused by schools or underserved communities both in the country of origin and internationally.

The Microsoft Digital Pipeline Pilot project's ambition is to embrace and extend this refurbishment scenario as an opportunity to help developing countries get access to cost-effective technology while creating value and the basis for a sustainable economic model in the country to support IT development. Microsoft will document the different steps of the implementation of the pilot and share information with UNESCO.

The Digital Pipeline Pilot is linked to the Microsoft refurbishment initiatives such as the MAR (Microsoft Authorized Refurbishers) programme that Microsoft has launched to support refurbishment activities. Through the MAR programme, Microsoft will provide re-installation of Windows 98 Second Edition and Windows 2000 Professional in over 18 languages. The refurbished PCs will be accompanied by a Certificate of Authenticity (COA) and a special End User License.

The MAR program complements the Unlimited Potential program to promote digital inclusion through education, lifelong learning and IT skills development.

members. During the last year and half, Microsoft has supported 261 community centre

built from web sites, databases and sets of best practices. They also consist of members exchanging knowledge, sharing experiences, building relationships, and developing a sense of belonging and mutual commitment. In many instances, the community members may share a homogenous vision and approach.

Regarding the new opportunities offered by the information and communication technologies (ICTs), and in particular Internet and the Web, Etienne Wenger says: *"New technologies such as the Internet have extended the reach of our interactions beyond the geographical limitations of traditional communities, but the increase in flow of information does not obviate the need for community. In fact, it expands the possibilities for community and calls for new kinds of communities based on shared practice. The concept of community of practice is influencing theory and practice in many domains. From humble beginnings in apprenticeship studies, the concept was grabbed by businesses interested in knowledge management and has progressively found its way into other sectors. It has now become the foundation of a perspective on knowing and learning that informs efforts to create learning systems in various sectors and at various levels of scale, from local communities, to single organizations, partnerships, cities, regions, and the entire world"*.

The knowledge produced by web communities of practice is "shared"; this means that the content is open for reading and improvements (peer review) to the community members. It is an iterative process that produces high quality knowledge. The social context of learning and sharing knowledge (about and with ICT) is an important aspect of socialization within communities of practice and the networked society. Communities of practice are social entities in which new roles (beyond just lecturer-student) are defined. Conflict and disagreement sometimes appear and mechanisms to handle tensions are required. One big difference with the portal approach is that the practitioners themselves are generating the knowledge and know-how being developed in the communities of practice. It is not generated by a centralized source.

According to Etienne Wenger, organizations that function solely as a centralized knowledge resource are ignoring the critical role of active engagement in effective learning and knowledge sharing. *"Learning is best understood as an interaction among practitioners, rather than a process in which a producer provides knowledge to a consumer"*⁶, he says. *"Communities of practice have both a short-term value and a long-term value"*. He continues, *"In the short term, the people within the group help each other solve problems. They share and learn what can be reused across the membership of the community. In the long-term, the communities of practice increase their capacity. By solving problems together, they develop a repertoire of stories and issues they have solved"*.

Communities of practice facilitate "empowerment" through their members' ability to participate in a community and allow the participants to drive the community. They are a model for the digital era where "bottom-up" decentralized approaches prevail, comprising matrices of links, multiple authoring and non-binding co-ordination – users becoming authors and content producers. Community members learn, share and improve their knowledge through the communication and collaborative process. Such a model is the architecture of the new "information culture".

⁶ Etienne Wenger on Communities of Practice: Engagement, Identity & Innovation by Seth Kahan published in *The Journal of Association Leadership*, March 2004 and including commentary by Jeff De Cagna

1.2 Vision and Objectives

The vision that is driving UNESCO's commitment to this project is that if UNESCO can realise the potential of communities of practice, this could be of significant assistance in fulfilling its mandate to create, share and disseminate knowledge. This will happen through the creation of web-based communities of practice that empower participants through their ability to produce their own content, exchange information and share experiences, solutions and best practices in UNESCO's fields of competence.

One of UNESCO's strategic outlines of the 31 C/4 "Medium Term Strategy" for 2002-2007 is expressed as, "promoting empowerment and participation in the emerging knowledge society through equitable access, capacity-building and knowledge-sharing". This translates into the following main lines of action, in the 32 C/5, of "Fostering equitable access to information and knowledge for development", "Capacity-building in ICTs" and "Increasing community access".

UNESCO's traditional role and modality has always been one of facilitating exchange of knowledge and know-how by bringing together people and experts in its fields of competence. This is usually done through the organization of conferences, workshops and meetings, i.e. by providing administrative support and a physical collaborative working space. After participating in such an event, people and experts often become members of a community related to the specific UNESCO activity. The use of ICTs would allow creating and cultivating of web-based or virtual communities of practice to follow this real world community model of people and experts coming together based on a common interest or an issue in order to generate and share knowledge.

The main goal is to empower community participants through their ability to produce their own content, exchange information and share experiences, solutions and best practices. UNESCO could then extend its role to become a convener of web-based communities of practice aimed at sharing knowledge rather than being only a provider of knowledge. Therefore the objectives of UNESCO's knowledge communities may be described as:

- To offer a community of practice environment for effective learning and knowledge sharing in UNESCO fields of competence; and
- To provide a platform for interaction among practitioners. The ultimate focus will be directed towards delivering an electronic workspace for communities. A prime objective of the UNESCO's "Knowledge Communities" platform will be to create communities of peers around a catalogued repository of knowledge and solutions.

1.3 Operationalising the Concept

The technology platform to support communities of practice should have the following functional aspects:

- A web-based portal with a home page to assert the existence and describe the domain and activities of the Community allowing remote access;
- A conversation space for on-line discussions of a variety of topics;
- A facility for floating questions to the Community or a subset of the community;
- A directory of membership with some information about their areas of expertise in the domain;

- A document repository for their knowledge base;
- Mechanisms for organizing, searching, rating and cataloguing content;
- Community management tools, mostly for the moderator or coordinator but sometimes also for the community at large, including the ability to know who is participating actively, which documents are downloaded, how much traffic there is, which documents need updating, etc.; and
- The ability to spawn subcommunities, subgroups, and project teams.

Furthermore, a technological platform for communities of practice should ideally be:

- Easy to learn and use;
- Easily integrated with the other software that members of the community are using for their regular work so that participation in the community requires as few extra steps as possible; and
- Not too expensive; if significant investment is required “up front”, potentially useful communities will not be able to take advantage of the platform.

In order to catalyse this work, UNESCO will take advantage of an opportunity presented by Microsoft’s Solutions Sharing Network (SSN), which is a community portal. The SSN is meant to serve as a portal gateway leading to multiple online communities. For each community that is created, a corresponding collaborative web site will be created to serve as the focal point and facilitation tool for the community. This platform will offer a community/collaborative environment facilitating the sharing, rework and enhancement of resources, among peers.

1.4 Community Descriptions

The project, called UNESCO’s “Knowledge Communities”, would start by initiating a few pilot knowledge communities to be identified in the areas of “Multilingualism in Cyberspace”, “Technology Solutions for Education”, and the “Information For All Programme” (IFAP).

Technology Solutions for Education

The multitude of problems facing formal education systems today is well known. Most notably, there are an estimated 900 million illiterates in the world and 130 million children unable to attend primary school. Their access to education is limited by time and space, age, socio-cultural environment, work schedules and physical or mental handicaps. Current educational problems are discussed in terms of: the declining numbers of qualified teachers and increasing numbers of students per class; inaccessibility and inflexibility of schools and universities; outdated and irrelevant curricula and methods of learning; and the lack of quality educational materials.

Today, ICTs afford an exciting opportunity to begin questioning some of the basic assumptions and the choices that were predicated on them and to re-open discussions around the nature and content of learning, the role of facilitators and places for learning. It is vital to explore the use of learning systems that encourage reflection, creativity, expression,

cooperation, social responsibility, democratic values, and tolerance. Learning modes will become a diversified mixture of self-instruction, formal and informal.

SSN Data Migration and Porting Capabilities

The SSN provides an environment in which communities may be created and documents/discussions shared. The environment is implemented on the Microsoft Sharepoint Server (SPS), with Microsoft SQL Server as a data repository. While the SSN environment is bespoke and implemented on a set of Microsoft proprietary products, the data (including documents and discussions) held within the environment are stored via standard database mechanisms that allow for backup, migration and export via widely available industry tools or bespoke filters as required.

More specifically, the following mechanisms may be used to migrate SSN data:

- Migration tools (e.g. smigrate and spout) that export documents and data files that may be exported/extracted and subsequently imported by another environment
- Export of data objects from the Sharepoint database via standard SQL Server object modelling functions.
- Widely available toolkits that leverage standard interfaces such as XML web services

1.5 Grant of Licences

For the purposes of this Agreement, Microsoft will grant to UNESCO all software licences required to implement the Solutions Sharing Network or SSN (comprising what was previously known as the OAS and ITN environments). The scope of software licence includes all SSN source code as well as all required Microsoft platform products (to be used solely for the implementation of the SSN environment). Microsoft will also make available all SSN and platform product updates and patches that arise throughout the duration of the Knowledge Communities project life.

Microsoft envisages that the environment will develop as a valuable asset within UNESCO's CI and communication strategy. The software grant will remain in effect for as long as the SSN environment is needed and the Microsoft/UNESCO partnership remains.

In the event that the Microsoft/UNESCO partnership is dissolved, the grant will remain in place for up to 90 days thereafter for the sole purpose of allowing an orderly shut-down/migration of the environment.

All data and content created, uploaded or archived (including documents and discussions) in the framework of the SSN environment are non-proprietary to Microsoft.

2. Syllabus for Teacher Training on Integrating ICT into Teaching

UNESCO Teacher Training Syllabus

Quantum leap in teacher training on using ICTs in the classroom

UNESCO strongly believes that modern information and communication technologies (ICTs) can make a major contribution to the capacity-building of teachers. Of particular interest is the effective integration of technology in education while taking account of instructional design, pedagogy and many other critical components of effective teaching and learning.

2.1 Project Proposal

There are various providers of teacher training courses and certificates on the use of ICT for teachers and classrooms. UNESCO and Microsoft aspire for there to be a quantum leap in the quality of courses and in accelerating their uptake by educationalists and teacher training institutions through the availability of standards, guidelines or benchmarks on what ought to be provided by those who offer courses on ICT teacher training. Therefore, UNESCO with assistance from Microsoft is embarking on a multi-stakeholder initiative to develop a reference master curriculum ("Syllabus"), targeting those offering certificated courses on teacher training on the use of ICT.

More specifically, skills for teaching and managing through ICT (for example development of generic ICT skills, effective use of ICT in the classroom, effective assessment techniques, knowing how to decide when ICT can bring improvements in learning); open and distance education; courseware development tools; and instructional design.

It is not envisaged that UNESCO would offer worldwide training activities nor would it offer a UNESCO certification. UNESCO seeks to develop the Syllabus to illustrate the level of ICT knowledge and skills that an international expert group (including course providers) believes is desirable for teacher training course certification. The Syllabus could then form the basis for deriving training content to be delivered to teachers in a multitude of ways and by different providers.

As a second phase, UNESCO proposes the development of a transparent mechanism by which course providers, educational policy-makers and teachers can refer to the Syllabus as a benchmark and ascertain whether or not course content and training programmes meet the requisite standard.

2.2 Engagement with Microsoft

Microsoft will be one of the founding partners in this multi stakeholder initiative to improve the quality and availability of teacher training on using ICT. Microsoft will collaborate with UNESCO on the Syllabus by drawing on Microsoft's experience in designing ICT products and services for use by educationalists and contributing knowhow and technical expertise during the Syllabus concept and development phase. Microsoft will also contribute resources to illustrate and promote the concept of the Syllabus, commencing with a multi-media presentation of "lessons" that illustrate potential outputs from the Syllabus.

3. A Sub-regional Resource Centre to Support Youth Information and Learning Structures in the North African Arab States

Community Access and Development

Supporting youth technology and learning centres

Information and communication technology (ICT) represents an opportunity for Arab nations to accelerate their socio-economic development and provide a sustainable community of development solutions. In a region where 50% of the population are under the age of 20 and 65% are under the age of 35, an investment in youth capacity-building would assist in the building of knowledge societies. Knowledge is a foundation for development. Through knowledge, a new generation that is capable of facing global challenges will emerge. Thus, investing in youth is a key strategy for progress.

3.1 Project Proposal

There are numerous initiatives for introducing youth to ICT, including youth community centres, that have been established in some of the countries in the sub-region of the North African Arab States. This gives rise to several needs. First, there is a clear need to draw on the positive experiences and successful practices that have accumulated in order to catalyse the creation of new info-structures in response to growing needs for access to, and use of, information technology. Second, there is a need to reach a new level in capacity-building in the form of a resource facility that could support sub-regional initiatives such as promoting economies of scale and creating opportunities for collaboration on training and other services.

In terms of the users of the various youth centres in the sub-region, this collaboration and sharing of knowledge and experience could introduce a new dimension. It could contribute to the dialogue among youth where the cross-cultural exchanges, the sharing of knowledge and information and the active participation in the cyber world will become a reality for many young people.

The proposed initiative focuses on building the capacities for youth empowerment and gives a high priority to addressing the needs of the underserved and disadvantaged young people. The strategy would be to establish a sub-regional resource centre in order to provide opportunities and conditions for improved access to information and communication technology, ICT skills development programmes, participation in cyberspace and the sharing of information and experiences among youth, working across geographical boundaries.

UNESCO and Microsoft, in collaboration with existing information structures, networks and youth associations in the participating countries, and in close cooperation with the official bodies in charge of youth in Tunisia (or such other host country), would collaborate to establish a sub-regional information technology and learning centre that can become a resource facility.

This initiative has the following strategic objectives:

- Develop ICT skills training schemes targeted at the needs of youth;

- Promote the efficient use of Information and communication technology

The Microsoft Unlimited Potential programme focuses mainly on narrowing the technology and skills gap to promote digital inclusion and a society that invests in life long learning. The programme also provides IT skills and access to community learning centres. Through this programme, Microsoft would contribute in the following ways:

- Unlimited Potential Grants – seed money to support Train the Trainer & IT skills development for young people;
- IT skill development curricula and certification;
- Software donation and solutions;
- Capacity-building through the support network;
- Providing technical support and expertise in setting up the Centre;
- Microsoft employee(s) involvement;
- Leveraging the youth programmes that have been supported through Unlimited Potential; and
- Assisting in mobilizing IT partners and other partners to maximise impact.

3.3 Contribution by Host Country

UNESCO will lead a negotiation with the national authorities of the host country to consider the conditions for the creation and hosting of the Centre, including:

- The necessary infrastructure for the Centre (venue, installation etc.) and provide appropriate furniture;
- The maintenance and security of the Centre;
- Related operational costs (management, utilities, phone lines, supplies, etc.);
- The costs for the coordinators responsible for the functioning of the Centre;
- The effective management of the Centre and the promotion of the services and the activities at national and regional levels; and
- Periodical reports on the project and the outcomes of the different activities.

of creation of micro-enterprises, HIV/AIDS prevention, youth community based voluntary programmes, youth mobility and exchanges); and

- Evaluating the impact of the project on the socio-economic development of the community and youth performance and their contributions to the knowledge society.