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.e 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.

APPENDIX 2 – MICROSOFT INITIATIVES

INNOVATIVE TEACHERS NETWORK

ITN is a web-based knowledge sharing and collaboration platform that provides teachers with content, tools and services. The core objective of ITN is to enable teachers to efficiently perform their daily classroom tasks, collaborate and communicate with peers, students and parents in a community environment, and enhance their professional skills by learning and sharing best practices. It allows teachers to access these features literally from anywhere in the world, thereby providing them the flexibility and convenience to plan their time and schedules, and learn and teach more efficiently.

The goal of ITN is to allow teachers, within countries and across the globe, to initiate, monitor, join and participate in communities or networks of teachers sharing the same concerns and the same interests; continuously share information, education materials, techniques, ideas, knowledge and best practices and to communicate with each other; locate education and professional materials to use in the classroom and to collaborate on the improvement and development of additional materials for the classroom; increase their knowledge and skills by identifying personal and professional development needs, defining development plans, localizing, and consuming professional development materials adapted to their needs.

PARTNERS IN LEARNING

The Partners in Learning structure offers three integrated programmes designed to help teachers and students realize their potential by providing high quality curriculum for teacher training; access to digital content; student skills assessment and certification and technical support; and affordable desktop tools and licensing. It is a five year commitment made to education by Microsoft around the world via:

- Fresh Start for Donated Computers -- designed to provide licensing certainty for Primary and Secondary (K12) schools using donated computers to increase access to technology.
- Partners in Learning School Agreement Subscription -- makes MS's core educational desktop tools, Windows XP Pro and Office XP Pro, available at a deeply discounted price per license, and therefore more affordable to primary and secondary schools in developing countries worldwide.
- Partners in Learning Grants Program-- providing a cash investment of over $225M over the next five years in an effort to provide government and education leadership with the local tools and resources to deliver comprehensive ICT skills training, as well as ongoing development and curriculum leadership to primary/second teachers and students within their countries.

UNLIMITED POTENTIAL

Through this global programme, Microsoft seeks to use technology training to create social and economic opportunities that can change lives, transform communities, and strengthen local economies. Through UP, Microsoft aims to empower and reach millions of community members. During the last year and half, Microsoft has supported 261 community centre

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 Tele-centres 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.

APPENDIX 3 – PROJECT DETAILS

1. UNESCO Knowledge Communities - building web communities of practice

UNESCO's Knowledge Communities
Web-based communities of practice in UNESCO's fields of competence

UNESCO's quest towards building knowledge societies recognizes the great importance of "community" and the power of "communicating". The evolution of modern technology makes it possible to connect collaborative people and spaces – to build a galaxy of "web-based communities of practice" that will foster the exchange of know-how and sharing of experiences. With a focus on community empowerment and participation, UNESCO will use the technology to bring together international and national experts and stakeholders to develop content, best practices, share tools, mobilize interested parties, and suggest solutions and strategies to address critical issues.

Initially, UNESCO will convene and moderate a suite of knowledge communities that will develop capacities around the themes of 'Technology Solutions in Education', 'Multilingualism in Cyberspace' and 'Information for All'. Future plans envision the creation of a multitude of other web communities in areas such as "Libraries and Archives", "Communication & Media", "Freedom of Expression & Democracy", "Memory of the World", and "ICT4D", among many others. UNESCO will use this experience to develop its understanding of the modern dynamics of interactive, decentralized, multiple, online communities that are driven by their users from "the bottom-up"; it is an attempt to put information to work and to provide a powerful collaboration environment.

UNESCO seeks to use the technology to "take the community pulse" in its areas of competence. It hopes to catalyse the involvement of other convenors and facilitators, and to learn about priorities as expressed by communities of practice in its Member States. It is, in a way, UNESCO's online participation programme.

1.1 Communities of Practice – Definition and Rationale

Many organizations recognize the place of community and the power of sharing for learning. In addition to having access to relevant, timely information, people also want to be involved and to feel like a participant of a community rather than feeling like a student attending a course. For these reasons, web-based (or "virtual") communities of practice are increasingly being seen as an important medium for learning and sharing knowledge.

> *"Communities of practice are groups of people who share a concern or a passion for something they do and who interact regularly to learn how to do it better." (Source: Etienne Wenger[5])*

Web-based communities of practice provide a model for a digital era of collaboration. They are an empowering model and tool to engage experts; they can mobilize those with the know-how as well as the other members who utilize communities of practice as sources of knowledge and expertise in order to find solutions to recurring problems. They are not just

[5] Cultivating communities of practice a quick start-up guide *by Etienne Wenger*
http://www.ewenger.com/theory/start-up_guide_PDF.pdf

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".

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[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, group work and tutoring.

This Community is intended to provide a collaboration space for experts working in the area of "ICTs and education" to address the foregoing issues, to define the most important emerging problems and solutions, and to identify appropriate strategies, policies and more immediately technological solutions.

Multilingualism in Cyberspace

The goal of universal access requires people to have the skills and tools to access the world's riches of knowledge. In a digital world, this includes knowing how to access and use the Internet and the World-Wide Web, yet, for much of the world's population, the language barrier means universal access remains a dream. This is why UNESCO is facilitating a web-based community of practice, comprising experts and stakeholders committed to fostering Multilingualism in Cyberspace. The aim is to identify strategies, solutions and collaborative opportunities that will foster a linguistically and culturally diverse cyberspace.

Information for All Programme

UNESCO's Information for All Programme (IFAP) is an unique intergovernmental initiative to support the goal of universal access to information. It provides international policies on information for all and works to translate these into national implementation strategies and actions. National IFAP Committees are therefore an important feature of the programme. UNESCO is facilitating the gathering of information specialists and national IFAP Committees into a community of practice that can inspire and learn from each other, and thereby accelerate and deepen the work of IFAP.

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.

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