Civil Society Working Group
Scientific Information
http://www.wsis-si.org

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V5

Reactions to the
Study on the economic and technical evolution of the scientific publication markets in Europe
and contributions on other issues linked to scientific publications.

Introduction: .The WSIS-SI Civil Society working group is operating within the framework of the **World Summit On the Information Society** (WSIS) (http://www.wsis.org), and its implementation and follow-up. The WSIS is a summit of the United Nations. The European Union, as such, did participate and continue to participate to the WSIS process.

It is assumed that the reader is already conversant with the concept of Open Access journals and Open Archives, so there is no need of a lengthy presentation of the topic. There is, however, one important point that we have to stress beforehand : Ressources are complying fully with our definition of Open Access only if their web sites can be conveniently and freely copied and mirrored.
The name “WSIS Civil Society Working Group on Scientific Information” is abbreviated as WSIS-SI.

Our reactions and contributions are structured as follows :

1/ Presentation of the WSIS
2/ Presentation of WSIS recommendations of interest.
3/ Commentaries on selected WSIS recommendations.
4/ Contribution of UNESCO and Russia to the WSIS process.
5/ Contribution of UNESCO 33C

6/ Civil Society Statements and Declarations
7/ General Comments on the WSIS documents.
8/ Current status of the WSIS implementation and follow-up.
9/ Comments about the study
10/ Contributions on other issues linked to scientific publications
11/ Conclusions.

1/ Presentation of the WSIS

The World Summit On the Information Society (WSIS) is a summit of the United Nations. The two main reference resolutions are the ITU Resolution 73, 1998 and the UN General Assembly Resolution 56/183 - 90th plenary meeting, 21 December 2001. The summit is being organized by the International Telecommunication Union (ITU). The WSIS is the first UN summit, where the Civil Society does officially participate. In this regard, it is a historic event.

The WSIS itself included two meetings :

* Geneva (Switzerland), 10-12 December 2003, where a Declaration of Principles and a Plan of Action were adopted.
* Tunis (Tunisia), 16-18 November 2005, where a Commitment and Agenda for the Information Society were adopted.

WSIS recommendations, and the word *per se* is clear, cannot be enforced, but this does not mean that they are without legal value.

The essential consequence of adopting a recommendation will be to authorize states that abides by a recommendation to put aside a former norm to the extent that they are not causing a prejudice to rights already acquired by other states.(quoted and translated from Droit International Public, 7th edition, #248, Patrick Dailler, Alain Pellet, LGDJ, Paris, 2002).

A recommendation allows to waive the international public law responsibility of a state that is implementing it. For example, if state A is accusing state B before the WTO or WIPO because state A considers that adoption by state B of an Open Access policy amounts to an unfair competition to commercial publishers of state A or is causing damages to copyright holders of state A, then state B may invoke the WSIS recommendation that has been undersigned by state A. In other words, one cannot criticize what one has agree to recommend.

A recommendation also helps to waive the responsibility (at national law level) of whatever entity in a State is implementing a UN recommendation in regards to National Authorities . For example, if a research and funding institution takes the initiative of a policy whereby its researchers are obliged to follow an Open Access policy (journals and/or archives), then the Ministry of Industry & Commerce, sensitive to the lobbies of the publishing industry would be in a difficult position to ask the Government to take actions against such institution, because the Government has agreed to recommend such a type of initiative, before all the peoples of the world at the WSIS.

Two points must be stressed: first recommendations are adopted only after reaching the consensus of all 176 states, second, there are adopted

while taking into account global considerations. Access to Scientific Information is not the sole topic of the WSIS and this is quite appropriate indeed, because this topic is considered within the framework of worldwide societal, cultural, technological and economic development, and not just within the narrower framework of the scientific community as it has been most often be the case. Within a worldwide perspective, the need of Open Access to bridge the digital divide appears obvious.

Of course, recommendations carry also a strong moral and political weight and negotiations were very intense.

Since it is presumed that this study is a first step towards the ultimate goal of drafting a European Union recommendation on Scientific Information, under the guidance of the European Science and Research Commissioner, it is interesting to underline that in the European Union context, recommendations exist, within a defined hierarchy of legal documents (Treaty, Regulation, Decision, Directive ,Recommendation, Declaration). It could be tentatively analyzed that a UN recommendation might be stronger than a EU recommendation, but weaker than a directive, this last point is not correct in every aspect, in particular in relationship to international treatises related to commerce, copyrights, patents, etc... because the range of a UN recommendation encompasses the whole world.

Of course, it must be stressed that European Recommendations being drafted after the WSIS; they must take into account the WSIS recommendations, and it is strongly advisable that they should follow them entirely, simply because any European state could put aside some European Scientific Information Recommendations, on the basis of a WSIS recommendation, creating at the onset, unneeded distortion within the Europe space.

2/ Presentation of WSIS recommendations of interest.

The first phase of the WSIS has been dealing with access to knowledge, while the second phase has been mostly focused on two issues that were left with no agreement : Internet Governance and Financing Mechanisms. Therefore, it is expected to find recommendations related to Open Access in the documents that were agreed upon in Geneva : the Geneva Declaration of Principles and Geneva Plan of Action. In the Tunis Commitment and in the Tunis Agenda, the paragraphs of interest to Open Access are some paragraphs related to Internet Governance, and those dealing with the way the WSIS implementation and follow-up has been decided.

Therefore recommendations of interest are the following :

GENEVA DECLARATION of PRINCIPLES

B. An Information Society for All: Key Principles

3) Access to information and knowledge

24.The ability for all to access and contribute information, ideas and knowledge is essential in an inclusive Information Society.

26 A rich public domain is an essential element for the growth of the Information Society, creating multiple benefits such as an educated public, new jobs, innovation, business opportunities, and the advancement of sciences. Information in the public domain should be easily accessible to support the Information Society, and protected from misappropriation. Public institutions such as libraries and archives, museums, cultural collections and other community-based access points should be strengthened so as to promote the preservation of documentary records and free and equitable access to information.

28. We strive to promote universal access with equal opportunities for all to scientific knowledge and the creation and dissemination of scientific and technical information, including open access initiatives for scientific publishing.

C. Towards an Information Society for All Based on Shared Knowledge

67. We are firmly convinced that we are collectively entering a new era of enormous potential, that of the Information Society and expanded human communication. In this emerging society, information and knowledge can be produced, exchanged, shared and communicated through all the networks of the world. All individuals can soon, if we take the necessary actions, together build a new Information Society based on shared knowledge and founded on global solidarity and a better mutual understanding between peoples and nations. We trust that these measures will open the way to the future development of a true knowledge society.

GENEVA PLAN of ACTION

C. Action Lines

C3. Access to information and knowledge

10. ICTs allow people, anywhere in the world, to access information and knowledge almost instantaneously. Individuals, organizations and communities should benefit from access to knowledge and information.

h) Support the creation and development of a digital public library and archive services, adapted to the Information Society, including reviewing national

library strategies and legislation, developing a global understanding of the need for “hybrid libraries”, and fostering worldwide cooperation between libraries.

i) Encourage initiatives to facilitate access, including free and affordable access to open access journals and books, and open archives for scientific information

C7. ICT applications: benefits in all aspects of life

14.ICT applications can support sustainable development, in the fields of public administration, business, education and training, health, employment, environment, agriculture and science within the framework of national e-strategies. This would include actions within the following sectors:

18. E-health

b)Facilitate access to the world’s medical knowledge and locally-relevant content resources for strengthening public health research and prevention programmes and promoting women’s and men’s health.

22. E-science

b) Promote electronic publishing, differential pricing and open access initiatives to make scientific information affordable and accessible in all countries on an equitable basis.

c) Promote the use of peer-to-peer technology to share scientific knowledge and pre-prints and reprints written by scientific authors who have waived their right to payment.

d) Promote the long-term systematic and efficient collection, dissemination and preservation of essential scientific digital data, for example, population and meteorological data in all countries.

e) Promote principles and metadata standards to facilitate cooperation and effective use of collected scientific information and data as appropriate to conduct scientific research.

C8. Cultural diversity and identity, linguistic diversity and local content

23.Cultural and linguistic diversity, while stimulating respect for cultural identity, traditions and religions, is essential to the development of an Information Society based on the dialogue among cultures and regional and international cooperation. It is an important factor for sustainable development.

a) Create policies that support the respect, preservation, promotion and enhancement of cultural and linguistic diversity and cultural heritage within the Information Society, as reflected in relevant agreed United Nations documents, including UNESCO's Universal Declaration on Cultural Diversity.

This includes encouraging governments to design cultural policies to promote the production of cultural, educational and scientific content and the development of local cultural industries suited to the linguistic and cultural context of the users.

b) Develop national policies and laws to ensure that libraries, archives, museums and other cultural institutions can play their full role of content—including traditional knowledge—providers in the Information Society, more particularly by providing continued access to reco

institutions on matters under their purview.
d) Facilitate the exchange of information and best practices, and in this regard make full use of the expertise of the academic, scientific and technical communities.
e)Advise all stakeholders in proposing ways and means to accelerate the availability and affordability of the Internet in the developing world.
f)Strengthen and enhance the engagement of stakeholders in existing and/or future Internet governance mechanisms, particularly those from developing countries.
g)**Identify emerging issues**, bring them to the attention of the relevant bodies and the general public, and, where appropriate, **make recommendations.**
h)Contribute to capacity building for Internet governance in developing countries, drawing fully on local sources of knowledge and expertise.
i)Promote and assess, on an ongoing basis, the **embodiment of WSIS principles** in Internet governance processes.
j)Discuss, inter alia, issues relating to critical Internet resources.
k)Help to find solutions to the issues arising from the use and misuse of the Internet, of particular concern to everyday users.

102. At the international level, bearing in mind the importance of the enabling environment:

- **a)** *Implementation and follow-up* of the outcomes of the Geneva and Tunis phases of the Summit should take into account the main themes and action lines in the Summit documents.
- **b)** Each UN agency should act according to its mandate and competencies, and pursuant to decisions of their respective governing bodies, and within existing approved resources.
- **c)** Implementation and follow-up should include intergovernmental and multi-stakeholder components.

105. We request that ECOSOC oversees the system-wide follow-up of the Geneva and Tunis outcomes of WSIS. To this end, we request that ECOSOC, at its substantive session of 2006, reviews the mandate, agenda and composition of the **Commission on Science and Technology for Development (CSTD),** including considering the strengthening of the Commission, taking into account the multi-stakeholder approach.

108. **We attach great importance** to multi-stakeholder implementation at the international level, which should be organized taking into account the themes and action lines in the Geneva Plan of Action, and moderated or facilitated by UN agencies when appropriate. An Annex to this document offers an indicative and non-exhaustive list of facilitators/moderators for the action lines of the Geneva Plan of Action.
109. The experience of, and the activities undertaken by, UN agencies in the WSIS process—notably ITU, UNESCO and UNDP—should continue to be

used to their fullest extent. These three agencies should play leading facilitating roles in the implementation of the Geneva Plan of Action and organize a meeting of moderators/facilitators of action lines, as mentioned in the Annex.

Annex

Action Line	**Possible moderators/facilitators**
C3. Access to information and knowledge	ITU/UNESCO
C7. ICT Applications	
• E-learning	UNESCO/ITU/UNIDO
• E-science	UNESCO/ITU/UNCTAD

3/ Commentaries on above selected WSIS recommendations.

Commentaries are needed to better appreciate the meaning of the texts, their extent as well as their legal and political consequences within the context of Open Access.

GENEVA DECLARATION of PRINCIPLES

The term win/win proposition has been present for a long time in the various drafts, but has been removed, possibly being too colloquial, and replace by the term “digital opportunity for all”. Open Access may be be identified as a win/win proposition because it creates immediate benefits to transition countries, while providing long term savings to industrialized nations.

B. An Information Society for All: Key Principles

3) Access to information and knowledge

> **26** This importance of the public domain is recognized, and this implies that national regulations should not hinder its growth. The role of libraries and archives is underlined.
>
> **28.** This is a key paragraph for Open Access. The term “strive” is a strong term that replaced “encourage” upon proposition of the Iranian delegation, after negotiation with the United States. The words “**including open access initiatives for scientific publishing”** are the results of the joint efforts of the WG-SI and the Croatian delegation that brought this language to the floor. Tense negotiations were conducted with the United States and the European Union delegation (then represented by Italy) to the effect of agreeing on a precise language that they would not veto. China and India were consulted also on the precise language.

CI.Towards an Information Society for All Based on Shared Knowledge

An interesting aspect of the summit is that progress will be evaluated. Nations that are going to be slow to implement the WSIS recommendations will face the judgement of fellow nations with an official venue, where of course the civil society will make it best to showcase those who are compliant as well as those who are reluctant. Non compliant nations might therefore pay an heavy political price, while a compliant nation is reaping international prestige and influence.

67. It is underlined that the information is a society based on shared knowledge, well in tune with the Open Access paradigm and in conflict with the business model of restricted journals.

GENEVA PLAN of ACTION

CI.Action Lines

C1. The role of governments and all stakeholders in the promotion of ICTs for development.

It is underlined that governments should take effective actions. Legal actions as other practical measures in favour of Open Access are therefore expected to be part of each national e-strategy in the implementation and follow-up process of the WSIS.

C3. Access to information and knowledge

10.

i) This paragraph is a key paragraph in explicit support to Open Access and was the occasion of an intense lobbying by the WG-SI and many diplomatic discussions. The initial text of this paragraph has been written by the WG-SI and has been included in the governments' draft at the end of PrepCom2 (Phase I). The text came under discussion during PrepCom3. The current text is fruit of the joint efforts by the Kenyan and Croatian delegations at PrepCom3B. The word “free and affordable access” may seem redundant at first glance, but it was added at the request of the representative from Sudan (at PrepCom3, during an *ad hoc* government working group where Dr. Francis Muguet was kindly allowed to assist.). It may be explained from the perspective of an access from a developing country, where the cost of communication and not just the free access to the server must be taken into account. The WG-SI also included books because accounts of scientific research are also reported in books. Support to the open archive initiative (http://www.openarchives.org) is also explicitly mentioned. Open archives constitute a crucial component of the Open Access movement, along with Open Access journals.

C4. Capacity building

It implies that national bodies are invited to finance Open Access Initiatives. An innovative Open Access initiative can certainly be construed as a pilot project involving news of forms of ICT-based networking, between and among developed and developing countries.

C7. ICT applications: benefits in all aspects of life

14. Open Access Initiatives may also be considered as ICT applications within the framework of national e-strategies.

18. E-health

b) The only way to truly facilitate access to the world's medical knowledge that is contained in scientific journals is that all medical journals should be open access. It is an urgent health matter, an international emergency. It is not exaggerated to state that people are currently dying because of the lack of open access that prevents many medical practitioners from accessing to updated or specialized medical knowledge.

22.E-science

This paragraph is a key paragraph where Open Access is explicitly supported several times.

b) The WG-SI has been very active in promoting Open Access in this paragraph while ICSU has been active in promoting "differential pricing", that may apply both to the price being paid by readers, within the Restricted Access paradigm, as well as publication charges paid by authors within the Open Access journal paradigm.

c)This recommendation is one of the most innovative of the Summit, on two aspects. It is the only one that is mentioning P2P. It also recognizes the special situation of Sciences; where except few cases (in some fields like law, in some country like Russia) , authors of articles published in scholarly journals are not paid. Researchers are "volunteer" authors that are donating their research accounts to publishers that become copyright holders. The text is precise, and it does not mention copyright holders but only authors. It means that private exchange, as embodied by the P2P technology, between people should be promoted. It could be considered as an evolutionary step from private mail exchange between people. This private exchange concerns only scientific information produced by volunteer authors. This means that scientific or educational books, popularization articles for which authors receive a payment, how small it is, do not fall within the field of this recommendation which is going to be further discussed *infra*.

d) As well as traditional books, digital data should be preserved. It would be appropriate that Europe should consider, in cooperation with National Libraries, to start a concerted effort to preserve scientific resources (journals, archives, data).

e) This recommendation, which is due to the lobbying of librarians, and IFLA in particular, is extremely important. It could be the basis for establishing a unified ontology in the spirit of the Semantic_web envisioned byTim Berners-Lee, the Web inventor, and director of the World Wide Web Consortium, to become the second evolutionary step of the Web. In this context, some civil society stakeholders have proposed a practical suggestion to find an efficient way to implement this recommendation. It is included within the general semantic web extension gTLDs (SwgTLDs) proposal (http://semantic.cc) , with the *.open* extension. In a nutshell, All SwgTLDs registrants in a specfic SWgTLD must follow the same ontology (ie same set of metadata with rules) whether described with the Web Ontology Language (OWL) or RDF schemas and/or a set of specific XML-schemas. Registrants that are not abiding by those rules shall be removed from the SwgTLD. Therefore it is possible to build areas of trust (ie where metadata can be trusted) within the Web. In other words, the goal is to build areas of [illegible] metadata pollution. (more information can be found at http://[illegible].cc) This paragraph has some bearing with Internet Governance. This is going to be further discussed *infra*.

C8. Cultural diversity and identity, linguistic diversity and local content

23.a) Europe is facing an acute linguistic diversity challenge. It should be underlined that scholarly resources are not only used as a mean of information exchange within the academic community, but are also prime resources for educators and advanced students, and at this level linguistic diversity is a serious challenge. As it would be almost impossible to require each author to translate their works into several language, at least we can recommend that authors would do so in their mother tongue.

In this regard, it is recommended that Europe should establish a cooperation with the World Language Diversity Network (REDILI) under the act[illegible]

where good translations are sitting besides barely understandable babbling, sometimes laughable, sometimes dangerous because it could means the reverse of what it is intended. This is because automatic translation tools have difficulties in catching semantics. Automatic translation would be much improved if machine translation tools could work with the help of several human certified translations in various languages. For example, if the same document has been made available in English and in French by the authors on the same site, and translated by human users in Russian and Korean on other sites, it would be tremendous advantage for automatic translation tools to have access and make use of all existing versions in different language of the same document. For example "Société Civile" would not be translated in yet other languages such as Italian as "Civil Company" with the help the English version. Of course, it is required that the translation tools could retrieve and identify the various versions at different locations, therefore the need for identifiers as well as standardized metadata or ontologies. It is hoped that if a document is available in three or four different languages, the automatic translation making use of the combination of those different languages would be rather good. Of course, scientific research to develop software translation tools that could make use of a combination of existing translations of the same document should be strongly encouraged, and would be indeed by the LSWgTLD authority. Furthermore, it would seem judicious to foster the availability of human-certified translations in as many languages as possible to further enhance the efficiency of automatic translation tools and to promote linguistic diversity. Therefore, each time an automatic translation tool is providing on request a translation, the translated text will be displayed on a Wiki so that a good speaker in the target language could correct the mistakes that have been made in the automatic translation. This strategy should quite efficient when dealing with scientific and technical documents.

In the Tunis Commitment and in the Tunis Agenda, the paragraphs of interest to Open Access are some paragraphs related to Internet Governance, and those dealing with the way the WSIS implementation and follow-up has been decided.

TUNIS AGENDA

72.
d) It must be underlined that the IGF is expected to benefit from the expertise of the academic community. It would be appropriate for Europe to provide a framework where the European academic community could be empowered to bring this expertise and therefore could bring the European perspective within the world arena. This framework could be a “Think Tank” (more on a “Think Tank” proposal *infra*)

g) It quite interesting to note that the IGF can make recommendations on emerging issues, Digital Identifiers are constituting an emerging issue. The European delegation at the IGF should be active on emerging issues.

i) Open Access as an embodiment of one of the principles mentioned in the Declaration of Principles should be accounted for, within Internet Governance.

105. Since it is the Commission on Science and Technology for Development (CSTD), of ECOSOC that has been selected to oversee the implementation and follow-up of the WSIS in all areas except Internet Governance, it is expected that the CSTD is not going to neglect scientific issues.

108. The multi-stakeholder approach is again emphasized and we hope that the WSIS-SI Civil Society group would be included in this approach, not only at the UN level, but at regional level such as the European level.

109. This paragraph and the annex are very important. The two action lines relevant for Open Access are :
C3. Access to information and knowledge and
C7. ICT Applications : E-science and to some extent E-learning.
C3 is moderated by UNESCO and ITU, and C7 E-science is moderated by UNESCO ITU UNCTAD. As found on the list of Action Line Facilitators and Focal Points, the focal point for all those action lines is Mr. Axel Plathe (UNESCO).

4/ Contribution of UNESCO and Russia to the WSIS process.

Before the Geneva summit, and significantly before the Tunis meeting, some international organization and governments organized a series of Regional and Thematic Meetings . A joint UNESCO-Russia thematic meeting **"UNESCO between two Phases of the World Summit on the Information Society"** was held in Saint-Petersburg (Russian Federation, 17-19 May 2005). The final document of this meeting has been disclosed on August 09, and it contains detailed innovative "Recommendations of the Conference to UNESCO" (see also http://www.wsis-si.org/unesco-russia05-recomm.html) concerning the implementation of Open Access. :

We recommend UNESCO and other UN specialized agencies, as well as other public and private funding institutions in the world:

- *to concentrate their financial resources on supporting or implementing self-sustainable Educational, Scientific and Cultural Information systems without costly recurrent licensing fees, with the help of Open Access repositories as well as Free Software, Open Source, and proprietary Freeware tools;*
- *to support creation of second disclosure Open Access information resources whereby authors are describing the results of their research that have already been published elsewhere;*
- *to provide financial support to first and second disclosure Open Access resources to eliminate the need to charge publication fees;*
- *to support the creation of an association of Open Access Publishers to reinforce their effectiveness in collaboratively raising financial resources and in gaining collective renown;*
- *to create or support seed funding programs to create new Open*

Access information resources everywhere in the world and to promote the conversion of existing resources to the Open Access model;

- *to require as a grant or endorsement condition, publication in the Open Access model of any full report of research being even partially funded, or morally endorsed by them;*
- *to support and endorse the initiatives of Funding Institutions to implement their own mandatory Open Access Archives;*
- *to create or support the implementation of a free Digital Object Identifier system to retrieve and directly and freely identify digital documents; and*
- *to build Open Access repositories in a way that would allow easy site mirroring as well as complete copying on portable media, such as CDs or DVDs, to allow access to knowledge in regions with little or non-existent Internet connections;*
- *to provide funding and in-kind assistance to a Free Software project that implements the peer-to-peer functionality as recommended by the WSIS Plan of Action to allow efficient exchange of scientific information.*

From an international public law point of view, these "recommendations" to UNESCO, because there was no formal voting process in Saint-Petersburg, belong in reality to a Declaration. It is however, an intergovernemental declaration that is giving practical suggestions to implement the Geneva recommendations and it would be highly appropriate that the European Commission should quote and consider them.

5/ Contribution of UNESCO 33C

The WSIS Geneva recommendations, as well as the WSIS Saint-Petersburg meeting recommendations, were mentioned but not quoted explicitly in the UNESCO draft budget that was prepared to be presented at the 33rd conference, in September 2005. However Italy submitted an Amendment to the Draft Programme and Budget including suggestions concerning Open Access in paragraph 0511 (33G p 195) V1.1 "Creating an enabling environment for the promotion of freedom of expression and universal access" strategic approaches. (18 August 2005) :
Requests the Member States (a) (b) (c) to foster through the International Federation of Library Associations and Institutions (IFLA) dissemination of the principles of open access; to foster dissemination of the principles of open access, particularly in universities; to promote developing countries' open access to archives for the sake of spreading scientific know-how;
Invites the Director-General (a) to assess the feasibility of creating a database on existing open access initiatives worldwide and to report at the forthcoming sessions of the Executive Board and the General Conference on the progress of open access strategies throughout the world; to promote a network of national working groups with a view to fostering open access in their

universities, to cooperate internationally in initiatives and projects on the subject of open access, and to promote the training of experts for cooperation in the publication of and open access to texts free of charge.

This amendment was taken into account in the following way in the Records of the General Conference - Resolutions page 227 / p 225 pdf : *20. Having examined 33 C/DR.68 (submitted by Italy) which proposes in paragraph 0511 to include a reference to UNESCO's contribution to the implementation of the concept of "universal access" and "open access", particularly to scientific works in universities, the Commission recommended that the General Conference invite the Director-General to take the concerns of its author into account in formulating the work plans.*

It appears that the UNESCO 33rd conference, before the Tunis summit, occurred a little too early so that UNESCO could fully take into account the WSIS recommendations. In its important role as moderator/facilitator of the C3 and C7 E-science action lines, UNESCO is expected to implement and to help implement those action lines in detail.

6/ Civil Society Statements and Declarations

This paragraph is going to be brief since it is expected that many other reactions to the Study will discuss at length the various Civil Society "declarations". Universities, scientific and educational institutions are not considered, under international public law, as governmental bodies. They are considered as NGOs and belong to Civil Society. ICSU, Codata etc.. also belong to Civil Society. Among scientific bodies that were active during the WSIS, only CERN is not a NGO, because it is an intergovernmental organization and is recognized as such, with its privileges, in the UN system.

In the Budapest Open Access Initiative (February 14, 2002), a clear strategy was outlined that considers both the Open Archives initiative and the Open Access Journal movement :

To achieve open access to scholarly journal literature, we recommend two complementary strategies

I. *Self-Archiving: First, scholars need the tools and assistance to deposit their refereed journal articles in open electronic archives, a practice commonly called, self-archiving**.** When these archives conform to standards created by the Open Archives Initiative, then search engines and other tools can treat the separate archives as one. Users then need not know which archives exist or where they are located in order to find and make use of their contents.*

II. Open-access Journals: Second, scholars need the means to launch a new generation of journals committed to open access, and to help existing journals that elect to make the transition to open access.

In the Budapest Open Access Initiative , the Bethesda Statement on Open Access Publishing(30 June 2003) and the position statement by the Wellcome Trust in support of open access publishing (October 1,2003) various philanthropic foundations and institutions have taken a position in favour of Open Access.

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (22 Oct 2003) constitutes a step further, because it is a

declaration that has been undersigned by the main French and German public research and funding agencies. Institutions from Greece and China also joined recently. The Bethesda Statement and Berlin Declaration were submitted by the WSIS-SI group as contributions submitted by accredited NGOs and are now part of the UN document system (WSIS/PC-3/C/0184 and WSIS/PC-3/C/0187 (English, French)). This might help international organizations, governments and the European Union to reference those "declarations" in an official way, as acknowledged inputs to a UN process.

Speeches given by Dr. Lin and Dr. Muguet as speakers during the formal plenary sessions of the WSIS in GENEVA in December 2003, before the WSIS are also Civil Society statements. It is interesting, in relationship to Open Access to quote *in extenso* the text of the speech given by Dr. Muguet at the WSIS in TUNIS in November 2005, since it was warmly received by ministers and head of governments of developing countries, especially from Africa.

Excellencies, Ladies & Gentlemen
Our report, where only some aspects can be mentioned, concerns the following multi-stakeholder events : Open Access to Scientific Information, event of the Scientific Information Working Group [4] ; Free Software, event of the Working Group on Patents, Copyrights & Trademarks[5]; several events[6] organized or co-organized by the Education & Research Family[7] Engineering, Knowledge Society and the challenges of the 21st century, event of the World Federation of Engineering Organizations[8] ; Impact of the high bandwidth networks on the exchange of scientific and technical contents, event organized by the Khawarizmi[9] center; ICTs and scientific knowledge sharing organized by the Tunisian Assistance Association for Scientific Research on the Net [10].
Let us focus, in a few minutes, on the essential :
First of all, concerning Open to Scientific Information, it must be underlined, which is often ignored from the public as well as those who are governing us, that scientists are donating for free accounts of their costly research to journals, and their works are evaluated and validated for free by their peers.
However, the cost to access those journals is exorbitant, creating a digital divide at the content level.
As it has been underlined by one of the contributors, in Medicine, the lack of Open Access to scientific journals has certainly resulted in the loss of many human lives.
However, we are not only killing people, we are also killing jobs. It happens to be so, when companies small or large, are deprived from resources financed by public or philanthropic funds in order to contribute to economic growth. Countless opportunities of technological developments are lost at inception. It is therefore quite a paradox to request Science to be the ultimate recourse in order to meet the challenges of a world in serious trouble, without implementing Open Access, in a quick and efficient manner.
This absurd and hazardous situation was born from an historical evolution

that shall not last during the new Information Society that shall become a Knowledge Society of Shared Knowledge.

The remedy to this situation is quite simple: it suffices to change current evaluation criteria that are constraining scientists to publish in old prestigious journals that have become preys of financial interests. One requirement in order to obtain funding for research investigations should be publishing through free and open resources. Considerable savings shall be realized in developed countries, while shall be removed this vice that chokes completely scientific efforts in developing countries. It is a win/win situation.

Concerning Education, it is rather obvious that Open Access to educational resources constitutes a key to worldwide development, in all domains of human activity, while respecting cultural and linguistic diversity.

Removing barriers that prevent to gain access to software tools that are themselves needed to access content is an obvious and urgent necessity. It is also necessary that interoperability, free from any right, should be made possible.

Concerning the implementation of the Summit recommendations, Multi-Stakeholders Partnerships are often quoted. The time has come when the United Nations should consider the question of providing them with an

In this context, Open Access is beneficial to all , because any financing action that could be undergone is expected not only to have a practical impact in developing countries but also to benefit to developed countries, up to the point of generating significant long term savings in those developed countries. Open Access financing can be achieved both in the name of a national scientific effort, but also in the name of international solidarity, therefore being able to draw financial resources and political support from a variety of financial resources and ministries.

Issues must be evaluated both from the perspective of developing and transition countries as well as from the standpoint of industrialized nations. Developing and transition countries must be able to access to scientific information located in industrialized countries.

Awareness was raised, during the WSIS negotiations, upon the fact that Open Access is a prerequisite to sustainable development. Without a decent access to scientific knowledge, any able scientist and engineer is almost forced to flee to a country where such a decent access exists, therefore creating a brain drain which is an insufferable damage to nascent academic bodies that are the basis of a high quality education system. The brain drain also affects the pool of technologists that constitutes the reservoir of high tech entrepreneurs.

In industrialized countries, in contrast to developing countries, because the suffering was less acute, awareness in favor of Open Access is more recent. This awareness was spurred by the spiral of ever increasing subscription prices to restricted journals. With commercial publishers, the current situation can be understood as the result of an unfair market place. With a few learned societies, this can be understood if those learned societies see their publications as their main financial resource for maintaining an overabundant infrastructure, while adopting the somewhat unethical policy that free diffusion of knowledge is not their prime concern. It is recommended that Europe should take care that learned societies, if they wish to keep their privileged tax exempted status (which amounts to indirect state subsidy) should abide by a few ethical guidelines, which should include following Open Access policies, now recommended by all nations of the world.

In moral terms, it has been underlined also that the mission of the research agencies and philanthropic foundations would be indeed incomplete, if they are funding research for the benefit of the whole humanity, while not taking care that accounts of funded research efforts are not freely available to the whole humanity.

During the WSIS negotiation process we have stressed many times that the current situation is absurd, in macro-economics terms, because the scientific community is donating content to publishers that are then reselling to the same community, the very same donated content at a very high price. An analogy can be made for limited illustration purpose with software : Let us imagine for a second that all programmers are paid by states, philanthropic organizations, or research companies, and they are donating their work for free to "publishers", and then that this software is resold, even to donors, at a very high price with no content modification except for a packaging that, most often, is not even appealing.

We are also underlining that Open Access would also benefit to small and large businesses that may access freely to scientific and technical information, and therefore, adoption of an Open Access policy is expected to spur economic growth and high tech employment. It is completely wrong to picture the Open Access movement as being anti-business as some publishers are trying to do.

The economic analysis that we used during our rather tense WSIS negotiations with representatives of the European Union can be summarized as follow : Public authorities are funding research in the hope of generating an overall economic growth. It is well known from economics theory (Keynesian economics) that public expenditures can accelerate economic growth through a lever mechanism known as the Keynesian multiplier factor. It must be appreciated that the main output of Scientific Research is information. By imposing a high toll on information, the output of those public expenditures, the multiplier effect is much reduced. In other words, oligopolistic publishers, sucking the blood of public expenditures, are constituting a class of macro-economic parasites that are anti-business and anti-growth.

It must be underlined that Open Access issues cannot be reduced to another business model concerning journals, it is about searching for all available avenues to achieve Open Access to research accounts & data. In this context, one should seek a better interaction between ITCs scientists and Open Access.

The WSIS negotiations did not focus enough on the Web, as distinguished from the Internet as they do correspond to different OSI layers. It is regrettable that the W3C did not play a major role in the WSIS prepcom process. Therefore not enough awareness has been raised concerning the current evolution of the Web which has been termed the Web 2.0. One of the characteristics include enriched multimedia content, the Semantic Web (XML, RDF, OWL etc...) and peer-to-peer networks (such as BitTorrent).

Several possible schemes were proposed within the WSIS-SI group for exploration and further study :

1/ Preprints.net: The idea is to use encrypted preprints to bypass the policy of some publishers (a serious issue in Chemistry) that consider that preprints constitute first disclosures that make the account not permitted to be submitted and published in their journals.

2/ Second disclosure Open Access journals where people can submit yet another account of a research that have been already published elsewhere. These second disclosure accounts may or may not constitute a self-plagiarism with different words and pictures. In our exploratory discussions, most authors expressed the wish to write those accounts in a format that would better adapted to current technology. The currently prevailing paper presentation style that have not changed since the mid- XIXth century is obviously obsolete. It does contribute certainly to the low attraction for sciences in western countries. However use of attractive multimedia requires high bandwidth. The need for high bandwidth can be however alleviated thanks to the use of the peer-to-peer technology whereby all members of the same downloading swarm are playing the role of micro servers to one another. This approach is very effective within high bandwidth

networks. P2P TV clients and servers (eg. http://p2ptv.cc) can be customized towards this goal.

3/ Reprints.net : Since table of contents of journals are publicly available on the Internet, the idea is to have special kind of journals or "epijournals" which contains only table contents which are linking to existing Open Access resource which is related to the research account : preprint or reprint archive, second disclosure account or P2P link (eg. BitTorrent file).

4/ Commercial publishers have set up a private DOI (Digital object identifier,) system with a special Handle system which is different from the DNS and is protected by a software patent. Yet another recent object retrieval system is the Object Naming Service designed to work with RFIDs. These two systems have been triggering some concerns from Civil Society and the WSIS-SI group. There is a need to develop a public Identifier system. A more sophisticated proposal is to set up Semantic Web gTLDs (http://semantic.cc). In the SWgTLDs , while each domain owner must abide by a ontology, an identifier system is proposed whose identifiers are based on Torrent files . Therefore an added advantage is that the whole extensions are P2P friendly allowing sites with small bandwidth to still be able to broadcast information efficiently. For Open Access, it is proposed to create the SWgtld ***.open*** extension, and within this scheme, Open Access content would benefit from a superior availability over locked contents.

The WSIS-SI recommends the European Commission to take into account the afore mentioned schemes (Preprints.net , Reprints.net, Second disclosure Open Access journals) and proposals (Semantic Web gTLDs) for further studies (cf infra Recommendation C2)

8/ Current status of the WSIS implementation and follow-up.

8 a/ Internet Governance

Concerning the Internet Governance Forum (IGF), it came as good surprise for Open Access that the four main themes selected for the Internet Governance Forum 2006 event (first edition, Monday 30 October - Thursday 2 November 2006, Athens, Greece) are:

1.OPENNESS
- Free flow of information, ideas, and access to knowledge

2.SECURITY
- Building trust online
- Protecting users from spam, phishing, viruses
- Maintain security while protecting privacy

3.DIVERSITY
- Multilingualism including IDN and promoting local content
- Respecting geographical diversity

4.ACCESS
- Internet connectivity, policies and costs

This choice of themes can be explained in part, because ICANN related Internet Governance issues will be discussed in yet another framework. Therefore, it seems possible to start discussions in Athens concerning Digital object identifier, Object Naming Service (see our concerns)

as well as the Semantic Web gTLDs (http://semantic.cc) proposal, related to the identification and retrieval of Open Access Resources.

The IGF Secretariat will prepare synthesis papers of all written IGF contributions that will be translated into all UN languages and submitted to the Athens meeting as official conference documents. The WSIS-SI will be keen to present contributions related to Open Access and Digital Identifiers.The deadline for those contribution is July 15. Since the call was made on July 1, we have asked this nearly impossible deadline to be postponed to August 15.

Concerning IGF Workshop proposals, the deadline is 24 August 2006 for proposal written in English (31 July 2006 for proposals written in-other UN languages). The WSIS-SI is going to present workshop proposals, possibly one related to Open Access, and one related to Digital Identifiers.

Since Athens is in Europe, it would be a good opportunity if Athens could be also choosen as the location of the european conference on scientific publication to be held in autumn 2006. It could take place conveniently just before the Internet Governance Forum 2006 event and contributes to the IGF workshops.

The WSIS-SI recommends the European Commission Commission and Directorate General for Research to actively participate, through the European Commission delegation, at the next meeting IGF in Athens, in October 2006,

The WSIS-SI further recommends the European Commission Commission and Directorate General for Research to held its conference on scientific publication scheduled in autumn 2006. before the IGF meeting, in order to convey related European conference outputs to the IGF workshops.

The WSIS-SI further recommends the European Commission Commission and Directorate General for Research to held its conference on scientific publication, in Athens, just before the Internet Governance Forum 2006 event, during the week from 23 to 27 October, unless there is a schedule conflict with the yet unannounced meeting of the C7 e-science action line (see below).

8 b/ All issues except internet governance.

Concerning all other items, a reformed Commission on Science and Technology for Development (CSTD), of ECOSOC that has been selected to oversee the implementation and follow-up of the WSIS. The Ninth session of the (yet unreformed) UN Commission on Science and Technology for Development CSTD was held in Geneva (15-19 May 2006). The draft resolution includes the following items of interest:

The Economic and Social Council

../..

Taking note of of General Assembly resolution 60/252 which requests the Council to oversee the system-wide follow-up of the Geneva and Tunis outcomes of the WSIS and to that end request the Council , at its substantive session of 2006 to review the mandate, agenda and composition of the CSTD, including the strengthening of the Commission, taking into account the multi-stakeholder approach:

Encourages Governments to take into account the findings of the Commission, and to this end :
../..
Requests United Nations entities engaged in the implementation of the Geneva and Tunis outcomes of the WSIS to collaborate closely with the CSTD by providing it with periodic reports on the progress made in the implementation of the main themes and action lines of WSIS, with a view to enable the Commission to monitor, review and appraise progress achieved and problems encountered in the implementation, and to advise the Council thereon, and;
Explore , in collaboration with other partners, the possibility of undertaking a global review of experiences in ***open access regimes****, especially with regard to* ***free and open source software*** *and* ***open academic and scientific journals*** *and ;*
../..
Requests the Commission, while continuing with its existing science and technology for development mandate, to enhance the future work programmes to include follow-up to the outcome of the 2005 World Summit and WSIS, in accordance with paragraph 105 of the Tunis Agenda for the Information Society; and Decides that the theme for the 2006-2008 review and policy cycle will be : "Promoting the building of a people-centred, development-oriented and inclusive information society with a view to enhancing digital opportunities for all people. Special Emphasis will be made on development dimensions of information and communication technologies; including risk-benefit analysis to bridge the digital divide.

The WSIS-SI recommends the European Commission to collaborate with ECOSOC to undertake the afore mentioned global review concerning Open Access.

During the Ninth session of the (yet unreformed) UN Commission on Science and Technology for Development CSTD (15-19 May 2006) was also proposed the idea of setting up a an International Think Tank "Resource Network for the Information Society" (**RNIS**) to help scientists to participate to public policy debates and to allow them to make public policy proposals. This proposal was well received.

The Substantive Session of ECOSOC 2006 (3 - 28 July 2006, Geneva) is going to address the 'review of the mandate, agenda and composition of the Commission of Science and Technology for Development (CSTD), including considering the strengthening of the Commission, taking into account the multi-stakeholder approach' (paragraph 105, Tunis Agenda).
(more information on the WSIS-SI ECOSOC page)

The WSIS-SI recommends the European Commission to support at the next Substantive Session of ECOSOC 2006, the proposal that ECOSOC should create an ad hoc working group to explore ways to form an International Think Tank to help scientists to participate to public policy debates and to allow them to make public policy proposals.

Meanwhile, without waiting for the CSTD to undertake its reform, there have been many Action Line Facilitation Meetings in May 2005.
However there has been no announcement of Facilitation Meetings so far

concerning the two action lines that are relevant to Open Access:
C3. Access to information and knowledge and
C7. ICT Applications : E-science and to some extent E-learning.

C3 is moderated by UNESCO and ITU, and C7 E-science is moderated by UNESCO ITU UNCTAD. As found on the list of Action Line Facilitators and Focal Points, the focal point for all those action lines is Mr. Axel Plathe (UNESCO) who has been very busy with other action lines.

During informal conversations in May in Geneva, we were informed that the UNESCO was considering to held the C7 e-science action line meeting to be held in October around an already existing event focused on a very specific aspect of scientific information. There is some concern that would induce discussions and outputs that would not reflect all the aspects of Open Access in a balanced manner.

It is a distinct possibility that the C7 e-science action line could be scheduled, for the sake of geographical diversity, in a location very distant from Europe. It might create special financial difficulties for European scientists active in promoting Open Access; to attend this meeting.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to contact the UNESCO e-science focal point to consider the possibility of a collaboration concerning the organization of the C7 e-science action line meeting and to avoid conflicting schedules.

If the C7 e-science action line meeting is held in location very distant from Europe, the WSIS-SI recommends the European Commission Commission and the Directorate General for Research to provide travel financial help to European scientists that are active in promoting Open Access.

The WSIS-SI further recommends the European Commission Commission and the Directorate General for Research to held its conference on scientific publication scheduled in autumn 2006. before the UNESCO e-science meeting, in order to convey related European conference outputs to the UNESCO e-science meeting.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to contact the UNESCO focal point to consider the possibility of a collaboration concerning the organization of the C3 “Access to information and Knowledge” action line meeting and avoid conflicting schedules.

10/ Contributions on other issues linked to scientific publications

Concerning the Follow-Up of the WSIS, it is also proposed that Open Access be recognized as an integral component of the various forms of Digital Solidarities. Therefore it is proposed to organize a **World Digital Solidarities Forum (WDSF)** or (**Forum Mondial des Solidarités Numériques FMSN**,) a back to back event occurring of the Internet Governance Forum (IGF) event.
A tentative list of topics includes :
1/ Financial Mechanism (Digital Solidarity Fund and other alternative mechanisms)
2/ Open Access to Scientific Information

3/ Open Educational Resources
4/ Free Software
5/ Volunteers
6/ Disabilities
7/Multi-Stakeholders partnerships
as well as cross-cutting themes such as :
a/Linguistic diversity and *b/Cultural diversity*

It might be possible to organize the **WDSF** in 2006 in Athens, and to include with it the European conference on scientific publication to be held in autumn 2006, before the Internet Governance Forum 2006 event.

However, it is most likely, because of time constraints, that the first edition of the WDSF will be organized in 2007. The representative from Brazil that is going to host the IGF 2007, has given us firm assurances to host the **WDSF**. An helpful collaboration with the European Union to organize the **WDSF** would be highly appreciated.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to contact the host countries of the Internet Governance Forum (IGF). events to consider the possibility of a collaboration concerning the organization of a World Digital Solidarities Forum (WDSF) as a back to back event to the IGF event, in regards to Open Access as part a World Digital Solidarities Forum (WDSF).

9/ Comments about the study

The undertaking of this study is a most welcome step of the European Commission.

The scope of the study was the economic and technical evolution of scientific publication markets in Europe. The authors must be commended for their exhaustive work within this scope. The WSIS-SI would like to thanks the authors that have consulted the WSIS-SI on the issue of digital object identifiers and quoted its position (page 83).

Since, this study has been was commissioned as a contribution to on-going public debate, it is hoped that this study will be completed by other studies. We would like to offer few suggestions.

We are well aware that one major goal of the European Commission is to help building a unified European market, as the WSIS-SI coordinator has been invited to various (Single European Electronic Market) SeemSeed workshops. In most fields, overall economic growth in the European Community can be achieved by promoting a fair and open market. If access to Scientific Information was simply a question of market; then this question would be dealt with at international level by the World Trade Organization (WTO) but this is absolutely not the case. Access to Scientific Information is dealt with by the WSIS, UNESCO, ITU, OECD, etc...

Therefore the question of Access to Scientific Information is more complex, and it cannot be restricted to a question of market regulation. even in terms of economics.

The economics of the access to scientific information should be studied within a more global economic approach that would uncover the indirect

subsidies by European states to a specific set of companies with the added effect of lowering significantly the Keynesian multiplier factor created by public research funding. While this study, by respected librarians, of current market conditions, was a necessary first step, it is now required to undergo yet another study that should be commissioned to economists and financial analysts. We expect that Open Access would appear as a conclusion of this macroeconomic study, as the most adequate and efficient solution to accelerate overall economic growth in the European Community.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to commission a study on the macroeconomics of scientific information.

Another aspect that would be worth another study, this time commissioned to international policy and social analysts, should deal with the consequences of Scientific Information policies in regards to sustainable development, its social and human consequences (migration of scientists; brain drain), and international policy of the European Union.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to commission a study on the interaction between access to scientific information with sustainable development and international policy.

With those considerations in mind, our specific observations to the various recommendations of the report are the following :

Recommendation A1.

This recommendation is received with caution. There should be no embargo period for research funded by the European Union. The embargo period is not an acceptable compromise, its duration is usually carefully designed by commercial publishers so as to ensure a such a disadvantage and annoyance to the effect of forcing scientists to subscribe, since knowledge of new results is well known to be essential in order to actively participate and contribute to research. A barely acceptable compromise could be that all research accounts be available immediately in Open Archives in the format produced by the authors. The only policy that the WSIS-SI recommends is to follow an updated version of the so called Unified dual Open Access provision that has been advocated for years by the Open Access movement :

1/Publish article in a open-access journal whenever one exists in the relevant topic (for a directory of existing OA journals : http://www.doaj.org)

or

2/ if an OA journal does not exist, publish article in a toll-access journal with a suitable copyright policy (http://romeo.eprints.org/) that allows open archiving.

and

3/ in all cases, archive a supplementary version of your article, in an institutional (university, funding agency, governmental) repository (http://archives.eprints.org/) if one exists, or any other existing repository (eg. personal web site), or resource (eg. P2P).

and

4/Publish an account of the same research in a second disclosure open-access resource whenever one exists in the relevant topic.
The provision 4) is rather rhetoric at the present time, since it is new and no second disclosure resource (journal, archive, P2P) has been created yet.

Recommendation A2.
This recommendation is most welcome and is in fact within the spirit of one recommendation discussed with the WSIS-SI : *Transfer "subscription funds" of publicly funded libraries and scientific institutions into "publication funds" to be used by researchers for the open access publication of their publicly funded research. This should and could easily be done at rates of at least 10% per year.*

The only caveat is that the term “business model” shall not be used. Access to Scientific Information does not belong to WTO and any trade or business, the term “financing model” should be preferred.

Recommendation A3.

This recommendation is most welcome. However, it could have been stronger. For journals, the overriding “quality” criterium should be Open accessibility. The first and foremost role of journals is to broadcast publicly funded research, and it should be governments' prime concern.

Another role that journals have been playing, since the advent of the Institute for Scientific Information (created by Eugene Garfield in 1960. bought by Thomson Scientific & Healthcare in 1992), is to help evaluate scientists for their careers and fundings. In this context the “quality” of the journal where a scientist is publishing become a factor of career and funding evaluation. However this journal secondary role is now called into question. There have been perverse consequences and bad practices. This delicate question should deserve further studies. For example, some groups of scientists (schools of thought) have developed the bad habit to quote only their like-minded colleagues, to quote bad quality papers as well as high quality papers. Quotation does not always correlate with quality. In some institutions, the “bibliometric” evaluation has almost replaced the evaluation process of the real quality and novelty of scientific research.

The “bibliometric” evaluation process has been extremely detrimental to the creation of new journals, and in particular to Open Access journals, since they are competing, in terms of “bibliometric” prestige, with well established journals. This is the fundamental reason why researchers are continuing to publish in commercial journals, against their inner wishes. This is forced upon on them, because of evaluation procedures that have been setup by their institutions and funding agencies. Open Access cannot rely only on heroes willing to take the risk to damage their careers. Governments that are ultimately responsible for this state of affair, should not complain because of the vast amount of public money that is being wasted within the overall Scientific Information system. Therefore, the European Union should commission for a detailed study of this question, and based on this study, would likely recommend the European scientific institution and funding agencies to adopt new evaluation procedures.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to commission a study on the evaluation process of researchers and its impact of scientific information resources.

Recommendation A4.

This recommendation is most welcome. It is worth mentioning however that this preservation effort must benefit to all journals, and specifically to Open Access journals, so that to ensure them better credibility to authors, who are sometimes worried about the access to their articles, if the journal does not survive. It is a paradox that recent agreements between a major commercial publisher and the Royal Library of the Netherlands had the effect to remove from said commercial publisher, the financial burden of preservation, therefore increasing again its profits without lowering subscription rates. This amounts to an indirect subsidy to commercial companies. It is recommended that preservation of commercial publishers resources should be invoiced by national libraries, depending on the access policy to preserved resources.

Recommendation A5.

This recommendation is most welcome. Development of interoperable tools and metadata is a necessity as the web is evolving. The WSIS-SI would have been pleased if the recommendation of this study (page 83, paragraph “Persistent Object Identifiers”) concerning DOI could have been quoted in this recommendation, all the more we have mentioned this paragraph at the last CSTD session in Geneva. As mentioned supra, a more sophisticated proposal is to set up Semantic Web gTLDs (http://semantic.cc).

The need of further studies is underlined in recommendation C2.

It is most welcome that the recommendation A5 calls for the funding of European Union research programs, but we would not restrict it to the forthcoming “2010 Digital libraries” programs. Other programs such the eContentplus programme should foster more on helping scientific information resources. Since the European Union programs are so complicated to decipher and understand, it would be much welcome a practical help that the European Union should appoint a focal point to help scientists, open access publishers and archivists to find European financial ressources.

The WSIS-SI recommends the European Commission Commission and Directorate General for Research to appoint a focal point so that Open Access resource creators and maintainers could be helped to identify appropriate financial resources, and conversely could convey , within a multi-stakeholder bottom-up approach, suggestions for new European programs or new features of existing programs.

Recommendations B1 and B2.

These recommendations are received with caution. While we approve that bad business practices must be eliminated, we are worried that the European Union might be diverted into curing the symptoms instead of the disease.

It is certain that the insatiable greed of certain commercial publishers

have been instrumental in pushing many librarians and scientists toward revolt. However, even if the commercial publishing market were non-monopolistic and competitive, it remains that, considering the big picture (ie the macroeconomics), Open Access policies should be implemented.

Recommendation B3.

This recommendation is partly welcome. As underlined before, Access to Scientific Information is not a question of market. Instead of public/private partnerships, it is recommended that scientific institutions should start to manage scientific publishing themselves and to set-up their own electronic journals open access publishing houses.

It must be underlined that Open Access has been and still is a bottom-up process initiated by the researchers themselves. Therefore, it is suggested that financial support and career recognition should be granted to scientists that are involved in managing Open Access resources (journals, archives, P2P, etc..), if Open Access is to expand in a sustainable fashion. As said before, Open Access should not have to rely on heroes.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to set up a working group to determine recommendations on the evaluation process of researchers involved in creating and maintaining Open Access resources.

Recommendation C1.

This recommendation is welcome, provided this advisory committee follows a transparent and inclusive multi-stakeholder approach towards an appreciation of the global issue of Access to Scientific Information. If the activity of this advisory committee is only focused on the regulation of the commercial scientific publishing market, the WSIS-SI would see no point in being part of this committee.

It would be good idea to interface this advisory committee with concerned parties in national European governments, as well as international organizations. Representatives from international organizations (UN, ECOSOC, UNESCO, ITU, OECD, etc..) and from developing countries shall be invited to participate to all sessions of this advisory committee as observers.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to set up an advisory committee on access to scientific information, within a global, transparent, inclusive and multi-stakeholder approach. It is recommended to include observers from international organizations and developing countries.

Recommendation C2.

The recommendation concerning the study of commercial publishers copyrights provision is certainly interesting and would provide librarians and open access activists with better tools of negotiation. However, it is only one aspect of copyright law in regards to Access to Scientific Information.

Copyright policies concerning Open Access resources is certainly well

worth studying also.

The most important study should be a study *de lege feranda* of the European directives and national legal provisions to be adopted, to ensure a better access to scientific information.

A good example should be a fair use provision for education and research based on the consideration of the volunteer status of scientific authors, that are donating freely their works to publishers. This is consideration is based on the recommendation adopted by the WSIS : **Promote the use of peer-to-peer technology to share scientific knowledge and pre-prints and reprints written by scientific authors who have waived their right to payment.**

Concerning the second topic: the economic analysis of alternative forms of dissemination, a study would be fruitful only after the macroeconomics have been fully understood with the help of an in-depth study.

Concerning the last topic: technological developments, we can only applause if this study could bridge the gap between ITC researchers, open access resources maintainers and authors. The web is evolving towards the Web 2.0. In fact, beyond a static study about a moving target, it would be a better idea to set up a forum, partly on-line, partly with workshops organized within the many conferences already taking places in Europe. (eg such as the IGF, W3C or others).

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to set up a Forum on "Technological Developments and Access to Scientific Information" within a global, transparent, inclusive and multi-stakeholder approach. It is recommended that this Forum would include an online forum supplemented by regular workshops where recommendations could be adopted.

10/ Contributions on other issues linked to scientific publications

There have been several other proposals within the WSIS-SI group.

Debate over centralized versus decentralized archives.

A first distinction that must be made is the distinction between legally centralized and centralized archives. An archive is legally decentralized when the formal legal control over content is given to local institutions. Nothing prevent local institutions to sign hosting contracts with a large external archiving facility. The interface through which a local researcher submits a paper may feature the coat of arms of his/her university, and conversely, an special entry interface in the database hosted by the large archiving facility may include local regalia. Legally decentralized archives may present some advantages to formally abide by copyright policies from uncooperative publishers.

A case has been made (Dr Franck Laloe) for legally centralized archives since science works at a world scale. It has been argued that the currently successful archives operate at the scale of a whole discipline, ArXiv for physics, Repec for Economy, etc...

Concerning technically decentralized archives, there has been some concerns that interoperability protocols, the best known being OAI-PMH. protocol is good but far from sufficient (at least in its present development stage), since it allows only relatively elementary searches over inhomogeneous institutional archives. Even if many documents are available, in practice this does not empower search tools such as OAIster, as practical scientific tool for research. One should warn institutions, especially the smaller ones, that technically building their own local archives with their own local idiosyncrasies may lead to repositories that may not be easily interoperable. Moreover, a decentralized system might not be robust enough to ensure long term preservation, with stable permanent URLs, DOIs, that scientists really need. It might appear therefore desirable to build large archives with a shared but centralized operation that guarantees metadata consistency. It has been argued that legally decentralized but technical centralized systems might offer the best of both worlds.

The debate between decentralized versus decentralized archives; both at the legal and technical levels, being still an open question within the Open Access community, and therefore the WSIS-SI remains uncommitted. It is recommended that the Europe Union should set up a working group to study this question and to recommend best practices.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to include in above mentioned Forum on "Technological Developments and Access to Scientific Information" a special working group focused on recommending the best practices concerning the implementation of decentralized versus decentralized archives; both at the legal and technical levels.

Publishing contracts:

There is a interesting proposal concerning publishing contracts for books. When authors are being paid, there has been the suggestion of a "default rule" (Dr. Jonathan Cave) that following the hardback run, books will either go to paperback (if they sell well) or be made freely available online, in full text print layout with all graphics. If authors are not paid, then the publisher should abide by an Open Access policy. A good example of an Open Access policy is the book : Theoretical Chemistry : a Self-Guided Introduction for College Students. The book content can be entirely downloaded in pdf format.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to include in above mentioned Forum on "Technological Developments and Access to Scientific Information" a special working group focused on recommending the best practices concerning publishing copyright practices concerning books.

Peer review process

One important problem (Dr Ulrich Poeschl) concerning scientific publishing is quality assurance, while reliable refereeing capacities are most limited resources which affect in priority new journals, such as Open Access journals. A large proportion of scientific publications are careless or faulty. Spectacular cases of scientific fraud are only the tip of the iceberg; the real major problem is a flood of carelessly prepared papers, which dilute rather than generate knowledge.

publication are insufficient to insure quality assurance in today's highly diverse and rapidly evolving world. They need to be complemented by interactive, transparent, and well-documented forms of review, publication, and discussion, which are open to the scientific community and to the public. In other words, the closed peer review needs to evolve into what may be called `collaborative peer review. Open access is instrumental for improving scientific quality assurance as it enables reviewers to work with more information.

Collaborative and interactive projects are the hallmark of the next generation of the Web. It is proposed (Dr Ulrich Poeschl) that the advantages of open access and collaborative peer review can be efficiently combined with the strengths of traditional publishing and peer review. Among the initiatives pursuing this approach and proving its viability, are the interactive open access journal Atmospheric Chemistry and Physics (ACP, www.atmos-chem-phys.org) and a growing number of sister journals published by the European Geosciences Union (EGU, www.copernicus.org/EGU). These journals are practicing a two-stage publication process with public peer review and interactive discussion. In the first stage, manuscripts that pass a rapid pre-screening (or access review) are immediately published as "discussion papers" on the website of the journal. They are then subject to interactive public discussion, during which the comments of designated referees, additional comments by other interested members of the scientific community, and the authors' replies are also published alongside the discussion paper. It is worth to underline that this public discussion is only made possible in an Open Access context, whose consequence is therefore better Science quality. This process bears some similarity with the quality insurance brought by Free Software whereby code can publicly inspected and debugged, instead of being reviewed only by a handful of private reviewers.

In a second stage, manuscript revision and peer review are completed in the same way as in traditional journals. This two-stage publication process resolves the dilemma between rapid scientific exchange and thorough quality assurance. It fosters scientific discussion, deters submission of deficient manuscripts, saves refereeing capacities, and enhances the information density in final papers. Moreover, it can be flexibly integrated into existing journals and in large scale open access resources.

The WSIS-SI recommends the European Commission Commission and the Directorate General for Research to include in above mentioned Forum on “Technological Developments and Access to Scientific Information” a special working group focused on recommending best practices concerning innovating peer reviewing processes only made possible through Open Access policies.

11/ Conclusions.

The **World Summit On the Information Society** (WSIS) recommendations on Open Access constituted a first step at an intergovernmental level. The world expects now from all signatories, and in particular, the European Union, an itemized implementation of those recommendations, and to follow a multi-stakeholder approach.