Updated Version of UNESCO Discussion Paper

Internet Universality: A Means Towards Building Knowledge Societies and the Post-2015 Sustainable Development Agenda

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Abstract

UNESCO's Communication and Information Sector is canvassing a new concept of "Internet Universality", which could serve to highlight, holistically, the continued conditions for progress towards the Knowledge Society and the elaboration of the Post-2015 Sustainable Development Agenda. The concept includes, but also goes beyond, universal access to the Internet, mobile and ICTs. The word "Universality" points to four fundamental norms that have been embodied in the broad evolution of the Internet to date, and which provide a comprehensive way to understand how multiple different aspects are part of a wider whole. For the Internet to fulfill its historic potential, it needs to achieve fully-fledged "Universality" based upon the strength and interdependence of the following: (i) the norm that the Internet is **Human Rights-based (**which in this paper is the substantive meaning of a "free Internet"**), (ii)** the norm that it is **"Open", (iii)** the norm that highlights **"Accessible to All",** and **(iv)** the norm that it is nurtured by **Multi-takeholder Participation**. The four norms can be summarized by the mnemonic R – O – A – M (**R**ights, **O**penness, **A**ccessibility, **M**ulti-stakeholder). The "Internet Universality" concept has very specific value for UNESCO in particular. By building on UNESCO's existing positions on the Internet, the concept of "Internet Universality" can help frame much of UNESCO's Internet-related work in Education, Culture, Natural and Social Sciences and Communication-Information for the strategic period of 2014-2021. As regards global debates on Internet governance, the "Internet Universality" concept can help UNESCO facilitate international multi-stakeholder cooperation, and it can also help to highlight what the Organization can bring to the Post-2015 Sustainable Development Agenda.

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Full Length version (14 pages)

1. Why a concept of "Internet Universality"?

There have been various definitions of Internet in different contexts and at different stage of the Internet's evolution, as given in different dictionaries and major scholars' work[2] as well as by participants in different communities ranging from technical to social and political ones[3]. Technically, the Internet is a global system of interconnected devices that use the standard Internet protocol suite (*TCP/IP*) to serve several billion users worldwide. After three decades of evolution and adoption, the Internet has become a diverse and evolving network of networks that consists of millions of private, public, academic, business, and government connections, of local to global scope, transacted through a broad array of cable and wireless technologies. Particularly, the Internet carries an extensive range of data and information resources, services and applications, such as the inter-linked hypertext documents of the World Wide Web (WWW), the infrastructure to support email, peer-to-peer networks, and the "Internet of Things"[4].

Seen from the vantage point of UNESCO's mandate and interests, Internet is much more than its infrastructure: it also comprises, critically, the social relationships around this infrastructure. In turn, these social relations constitute, and are constituted by, a set of behavioral norms. It is particularly in relation to these norms that UNESCO's mandate comes into play, and where the Organization has a major stake and a role to play as regards the Internet and its utility.

As elaborated below, UNESCO has long recognized that the Internet has enormous potential to bring the world closer to peace, sustainable development and the eradication of poverty. How this potential can be realized can be usefully clarified by considering a new concept named

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[2] A non-inclusive list of major Internet scholars' work includes "Networks and States: The Global Politics of Internet Governance"(Milton L.Mueller, 2013) "The Oxford Handbook of Internet Studies"(Edited by William H. Dutton, 2013), "The Handbook of Internet Studies"(Edited by Mia Conslvo and Charles Ess, 2011), "The Internet in Everyday Life" (Edited by Caroline Haythornthwaite and Barry Wellman, 2002), "The Rise of Network Society, The Information Age: Economy, Society and Culture"(Manuel Castells, 1996 and 2000), "Annual Survey Report on Internet Development in China" (China Internet Network Information Center, CNNIC) and etc.

[3] Various stakeholders characterize the Internet according to what they perceive as its essential features. See for example the foci of the Stockholm Forum, the Freedom Online Coalition on Cyberspace, Wilton Park, and the London and Budapest conferences on Cyberspace. Similarly, the Internet has been analyzed in:

- the Council of Europe's "Recommendation CM/Rec(2011)8 of the Committee of Ministers to member states on the protection and promotion of the universality, integrity and openness of the Internet" (2011) https://wcd.coe.int/ViewDoc.jsp?id=1835707&Site=CM&BackColorInternet=C3C3C3&BackColorIntranet=EDB021&BackColorLogged=F5D383 ;
- the OECD Council Recommendation on Principles for Internet Policy Making (2011) http://www.oecd.org/sti/ieconomy/49258588.pdf ;
- the OSCE Representative on Freedom of the Media Recommendations from the Internet 2013 Conference (2013); http://www.osce.org/fom/100112;
- the ICC Policy Statement on "The freedom of expression and the free flow of information on the Internet" http://www.iccwbo.org/News/Articles/2012/ICC-defends-freedom-of-expression-and-the-free-flow-of-information-online/;
- the ICC Issues Paper on the Seventh Internet Governance Forum (2012); http://www.iccwbo.org/Advocacy-Codes-and-Rules/Document-centre/2013/ICC-BASIS-report-on-the-7th-Internet-Governance-Forum-(IGF)/;
- the Internet Rights & Principle Coalition: Internet Rights & Principles (IRP) Charter http://internetrightsandprinciples.org/wpcharter/ (2010).

[4] Kevin Ashton, "That 'Internet of Things' Thing", *RFID Journal*, 22 June 2009.

"**Internet Universality**".[5]   In particular, this innovation can give UNESCO's diverse work concerning the Internet a sense of common purpose and thereby open the door to new opportunities for synergies and co-operation. The concept points UNESCO, both as a user and as a shaper of the Internet, to its interest realizing the Internet's full potential to benefit humanity.

This concept could be particularly useful in a context where the Internet continues to evolve fast and be renovated with the dynamics of mobile connections, Web 2.0 (social media), cloud computing, big data, etc. According to 2012 report "Measuring Information Society"[6] by International Telecommunication Union (ITU), the total number of Internet users worldwide by the end of 2011 was 2.3 billion, amounting to 24% of the population in developing countries with higher penetration in developing countries. Active users of Facebook, an online social networking platform, grew from 150 million to 600 million between 2009 and 2011; and the total number of Chinese social media users reached 300 million by the end of 2011.[7] This context suggests why the Internet has been receiving increasing attention as regards its social and political implications as well as acknowledgement of its profound impact across the spectrum of human society. For example, the UN Rapporteur on Freedom of Expression stated in his 2011 report: "Internet is one of the most powerful instruments of the 21st century for increasing transparency in the conduct of the powerful, access to information, and for facilitating active citizen participation in building democratic societies".

However, precisely because of the ever-increasing centrality of Internet to societies, it is often a challenge to perceive where the different dimensions of what is called "Internetization" link to each other, and how they relate to the whole. The Internet is experienced as many different things, often in a superficial and fragmentary fashion. Billions of individual users approach the facility from their own vantage points and shifting purposes of engagement, and generally without full awareness of the interconnected, albeit uneven and sometimes chaotic, totality. There is not always conscious appreciation of the normative conditions that underpin the Internet's development and dynamic uses.

Overall, the situation is akin to the metaphor of blindfolded persons touching different aspects of an elephant and trying to characterize what they encounter, without necessarily being able to see how the different elements are integrated in a single, albeit large and complex, creature. In the international community and academia, various aspects of the Internet have been highlighted according to different concerns of the different definers – such as the "free Internet",

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[5] The concept has been developed and received positive feedback and suggestions since February 2013, through informal external consultations with interested parties at a number of international events which include: 1. WSIS+10 review meeting 2013; 2.World Press Freedom Day Celebration 2013; 3. Stockholm Conference on Online Freedom; 4. WSIS C9 Media Meeting at WSIS Forum 2013; 5. Giganet International Workshop on Internet Governance on 18 May 2013; 6. Online Freedom Coalition Conference 2013; 7. Oxford-Annenberg Summer Institute on Global Media Policy 2013. An internal consultation meeting was held within UNESCO Communication and Information Sector on 27 May 2013 , and following this, a formal inter-sectoral consultation took place with UNESCO Sectors of Education, Culture, Science, Social Sciences and Humanities as well as Bureau of Strategic Planning has been undertaken since 16 June 2013, with an open and house-wide online consultation conducted through UNESCOMMUNITY.
[6] http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2012/MIS2012_without_Annex_4.pdf
[7] http://tech.qq.com/a/20120426/000023.htm

the "open Internet", ethical uses of the Internet, cyber-security issues, and principles for Internet policy making. These reflect a range of interests, but they are seldom added up so as to see how each one impacts upon the other. In UNESCO itself, while diverse programs understandably bring their mandated emphases to bear on the Internet, less attention gets given to how these relate to each other and to the issue of the Organization's over-arching approach to the whole.

As an international intergovernmental organization that operates with a global remit and promotes values that are **universal**, UNESCO has a logical connection to the Internet's "universality" in ways that go beyond technology. By understanding "universality" in societal terms, we are led immediately to a breadth of vision that is much wider than one of the Internet as being simply a technological channel or tool. Going further, through coupling "universality" to "Internet", attention can be drawn to the very specific social behaviors and underlying norms (and associated values) which underpin how the Internet is related to humanity's progress towards the Knowledge Society and the Post-2015 Sustainable Development Agenda.

Through signaling that, from a UNESCO vantage point, the most essential quality of the Internet is "universality" in a social sense, it follows that there is a need to identify the normative foundations for "universality". This word in fact refers to the common thread that runs through four key social dimensions pertaining to the Internet, namely the extent to which this facility is based on universal norms of being: (i) **Human Rights-based** and thus "free"; (ii) **Open**; (iii) **Accessible to All**; and (iv) **Multi-stakeholder Participation**. The four norms can be summarized by the mnemonic R – O – A – M (Rights-based, Open, Accessible, Multi-stakeholder driven).

To merit the "universality" appellation, the Internet needs to continue to embody and strengthen these four historic features that have characterized and enabled the development of the Internet thus far. "Internet Universality" in this broad sense of encompassing four norms can serve as a "chapeau" for the more specific inputs and outputs of the Internet which directly relate to the work of the Organization. The concept can help illuminate where such online norms facilitate UNESCO's work, as well as where this work helps to reinforce these norms themselves.

As well as identifying the key elements of interest to UNESCO, the concept of "Internet Universality" also groups these distinctive norms under a single integrated heading in a way that affords recognition of their mutually reinforcing and interdependent character. Without this comprehensive intellectual device, it would be hard for UNESCO to see the big picture of its Internet-related work and how this relates to Knowledge Societies and the Post-2015 Sustainable Development Agenda.

Against all this background, there could be substantial value in "Internet Universality" as a **macro-concept** that captures the enduring essentials of the vast, complex and evolving Internet, and that facilitates a comprehensive understanding where and how different parties, and especially UNESCO, relate to the Internet. In this way, we are able to throw a wider, and

inclusive, light on many of the dimensions that are otherwise touched upon individually and often in isolation.

In terms of global debates, the concept of "Internet Universality" can be explored as a neutral, consolidated and comprehensive framework which on one hand highlights the freedom and human rights principles as shared by those existing notions such as "Internet freedom", and on the other hand, also provides an umbrella to holistically address the intertwined issues between access and use, technical and economic openness. In addition, the concept also encompasses multi-stakeholder engagement as an integral component. In this way, the "Internet Universality" concept can also be a unifying, bridging and foresighted framework for dialogue between North and South and among different stakeholders. As such, it could make a unique contribution to shaping global Internet governance discourse and the Post-2015 Sustainable Development Agenda.

For UNESCO in particular, the concept could help underpin a more practical weaving together of many threads regarding activities towards building Knowledge Societies and shaping the Post-2015 Sustainable Development Agenda:

Firstly, "Internet Universality" can help illuminate how UNESCO's different programs contribute in different ways to an Internet that helps to realize the Organization's aspirational concept of inclusive and sustainable Knowledge Societies.[8] Knowledge Societies is a broader vision than "Internet Universality", but "Internet Universality" is surely one of the vital contributions to Knowledge Societies. When conceived of as a package of interdependent norms, "Internet Universality" can be seen to constitute a "mission-critical" means towards the achievement of the ends of Knowledge Societies that exhibit UNESCO's defined interests in freedom of expression, universal access, respect for diversity, the right to share in scientific advancement and its benefits and quality education.

Secondly, "Internet Universality" as a concept can enrich discussions around the Post-2015 Sustainable Development Agenda. Following the Millennium Development Goals (MDGs) in 2000, the two phases of the World Summit of the Information Society (WSIS) in 2003 and 2005 saw UN recognition of ICTs as enablers for development. Since then, as noted in the Final Statement to the WSIS+10 conference held at UNESCO in February 2013, there has been: "The rapid diffusion of mobile communication, establishment of Internet exchange points (IXPs), the increased availability of multilingual content and Internationalized Domain Names (IDNs), and the advent of new services and applications, including m-health, mobile transactions, e-Government, e-education, e-business and developmental services…". As the Statement further observes, these developments "offer great potential for the development of the knowledge societies"[9] and it logically urges that the lessons since WSIS should inform the formulation of development goals post 2015.

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[8] http://unesdoc.unesco.org/images/0014/001418/141843e.pdf

[9]

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_final_statement_en.pdf

Similarly, the May 2013 Joint Statement of UNGIS (United Nations Group on the Information Society)[10] describes the developments since WSIS as greatly expanding the opportunities "to promote inclusive development".[11] It urges that "Interaction between the Post-2015 Sustainable Development Agenda and the WSIS+10 Review processes be established to create synergies."

Nonetheless, the "Internet Universality" concept takes stock of several key reports regarding Post-2015 process including:
- The UNTT Report Realizing the Future We Want for All[12]
- UNDG Report The Global Conversation Begins[13]
- SDSN Report An Action Agenda For Sustainable Development [14]
- The Global Thematic Consultation on Governance [15]
- UN Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Age[16]

Though these reports are relatively silent about the Internet and its potential, they do recognize key social preconditions for development, such as good governance and effective institutions. These preconditions are also essential to developing the Internet, and they therefore in turn heighten the potential for the Internet to play an enhanced role in development. Therefore, there are meaningful parallels between the factors which the UN Report highlights, and those that are implicated in the normative components of "Internet Universality". The concept of "Internet Universality" could help to build closer bridges between the WSIS legacy and Post-2015 Sustainable Development Agenda.

In summary, "Internet Universality" has strong potential as a concept to provide a joined-up understanding – one which transcends silos and fragmentation. In this way, it could facilitate co-operation and the combining of energies to meet shared wider development objectives. "Internet Universality" as a concept captures what is important in the light of the growing pervasiveness of the Internet in human affairs. It highlights the behavioral norms and values underpinning this trend, and points to the need to strengthen these so as to have an Internet that helps realize the highest aspirations of humanity, which is ubiquitous and serves everyone, and which reflects general participation in its development and governance. It is a concept for the Internet that covers the predominant character of what "is" as well as what "ought". It is a descriptive and prescriptive concept of wide significance to UNESCO.

2. Unpacking the concept of "Internet Universality"

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[10] http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/ungis_joint_statement_wsis_2013.pdf
[11] http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/ungis_joint_statement_wsis_2013.pdf
[12] http://www.un.org/en/development/desa/policy/untaskteam_undf/untt_report.pdf
[13] http://www.worldwewant2015.org/the-global-conversation-begins
[14] http://unsdsn.org/files/2013/06/130613-SDSN-An-Action-Agenda-for-Sustainable-Development-FINAL.pdf
[15] http://www.worldwewant2015.org/governance
[16] http://www.post2015hlp.org/wp-content/uploads/2013/05/UN-Report.pdf

"Internet Universality" can be understood as a heuristic to highlight that the Internet's technical, social, legal, economic and other arrangements ride upon particular norms and values. This can be seen by elaborating upon "Internet Universality" as designating, intrinsically, four distinctive norms that come together to make the Internet what it is and could be. These are embedded in the facility in the form of it being (i) Human Rights-based and thus free, (ii) Open, (iii) Accessible to All and (iv) nurtured by Multi-stakeholder Participation.

As is signaled below, the analysis of these four components builds closely upon the foundations of prior UNESCO thinking about the Internet which includes:
-"Recommendation on the Promotion and Use of Multilingualism and Universal Access to Cyberspace"(2003)[17]
- Reflection and Analysis by UNESCO on the Internet (2011)[18]
- the Final Recommendations of WSIS+10 review (2013)[19]
- Joint Statement of UNGIS (UN Group on the Information Society) on the Post-2015 Sustainable Development Agenda (2013).[20]

The R – O – A – M norms constitutive of "Internet Universality" (**R**ights, **O**penness, **A**ccessibility, **M**ulti-stakeholder) can now be considered in more depth:

(i)   By identifying the Internet's connection to **Human Rights-based** norms as constituents of freedom, "Internet Universality" helps to emphasize continued harmony between the growth and use of the Internet and human rights. A free Internet in this sense means one that respects and enables the freedom to exercise human rights.[21] For example, of particular significance to the Internet as a communications medium is the right to freedom of expression which Article 19 of the Universal Declaration of Human Rights elaborates as the right to "to seek, receive and impart information and ideas through any media and regardless of frontiers". These human rights have been reaffirmed by United Nations Human Rights Council at its 20th session in July 2012 with a Resolution[22] passed on the "promotion, protection, and enjoyment of human rights on the Internet", which states that the same rights that people have offline must also be protected online, and recognizes the global and open Internet as a driving force for development. Closed national intranets would undermine the universality of the Internet as an asset to humankind at large, and radically limit the exercise of the right to freedom of information.

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[17] http://www.unesco.org/new/en/communication-and-information/about-us/how-we-work/strategy-and-programme/promotion-and-use-of-multilingualism-and-universal-access-to-cyberspace/
[18] http://unesdoc.unesco.org/images/0019/001920/192096e.pdf
[19] Final Recommendations. Document of First WSIS+10 Review Event, "Towards Knowledge Societies for Peace and Sustainable Development", Paris 25-27 February, 2013.
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf
[20] http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/ungis_joint_statement_wsis_2013.pdf
[21] In this manner, "Internet Universality" accords with the Report of UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression and also echoes the first resolution on "promotion, protection and enjoyment of human rights on the Internet" passed by UN Human Rights Council in 2012.
[22] http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/G12/153/25/PDF/G1215325.pdf?OpenElement

"Internet Universality" also enjoins us to consider the gamut of interdependencies and inter-relationships between different human rights and the Internet – such as freedom of expression, privacy, cultural participation, gender equality, association, security, education, etc. This dimension of "Internet Universality" implies that any restrictions impacting on Internet should be human-rights compliant, meeting international standards that require such actions being in law, proportionate, and for legitimate purpose within democratic society, and establishing public-interest balances where different rights compete with each other, such as between privacy and security as regards data gathering. An Internet that failed to uphold human rights would be far from being a case of "Internet Universality", and would also be incompatible with the Post-2015 Sustainable Development Agenda.

(ii)   "Internet Universality" also highlights the norm of the Internet being **Open**. This designation recognizes the importance of technological issues such as open standards, inter-operability and open application interfaces, and it also signals the importance of ease of entry of actors into the Internet market and the absence of closure that might otherwise be imposed through exclusionary licensing regimes or protectionist limitation on the provision of services that artificially favor monopolies or archaic technological platforms. Openness is a necessary, even if not sufficient, condition for the innovation that has enabled the Internet to move from the margins to the mainstream of development. Such innovation, however, also relies inter alia on a global free flow of ideas and information, showing thereby the interdependence between the "free and rights-based" and the "open" characteristics of "Internet Universality". Through "openness", "Internet Universality" celebrates the integrity of the Internet as enabling a common global exchange, rather being confined to "walled gardens" based on incompatible technologies. Openness also points to the importance of open source software, open data, and open educational resources, as part of the positive make-up of the Internet.

(iii)   "**Accessible to all**" as part of "Internet Universality" raises issues of technical access, as well as digital divides such as based on economic income and urban-rural inequalities, and it points to the importance of norms around universal access to minimum levels of connectivity infrastructure. This concern also sensitizes us to differences in device capacity such as may exist, for example, between broadband access on a tablet or smartphone, and access by a slow data transmission mobile connection on a (small screen) feature-phone.

At the same time, it is also clear that this level of "access" is insufficient to address "accessibility", in the sense of social exclusions from the Internet based on factors such as literacy, language, gender, and disability. Further, understanding that people access the Internet as producers of content, code and services, and not just as consumers, the issue of user competencies can be seen as part of the accessibility dimension of "Universality". To this end, it becomes important to factor in UNESCO's notion of Media and Information Literacy as the empowerment of Internet users to

engage critically, competently and ethically. All this reinforces the rights-based norm as was pointed out in 2003 by UNESCO's Recommendation Concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace which urged Member States and others to "recognize and support universal access to the Internet as an instrument for promoting the realization of human rights…".

Also important for the Internet as "accessible to all" is that sustainable and reliable business models are able to finance universal access and further ensure accessibility through the sustenance of a diverse range of content and services. All the components of the internet chain, from infrastructure to hardware, from creative content production to online publication, imply costs that must be foreseen and shared. Sustainable resourcing, ranging from public/private partnerships through to commons-based peer production[23], and appropriate normative and policy measures, is necessary in the service of effective universality.

It can also be proposed that "accessible to all" presupposes a degree of trust in the Internet by its users. In turn, that relies on the users having confidence in digital records and preservation to guarantee enduring integrity, security and authenticity of data, and at the same time as having good cause to expect their rights will not be compromised through digital interactions, transactions and storage.

In summary, for there to be "Universality" of the Internet, all these dimensions of "accessibility" require addressing. At the same time, progress in these areas is of limited significance if the connections thus enabled are limited to an Internet which lacks freedom in terms of rights (including the rights to expression and to information), and also if the Internet is lacking in openness in terms of the points noted above.

(iv)   As integral to the dimensions described above, there is an implication for conceptualizing the spread of stakeholders as the Internet increasingly matters across the spectrum of human activity. Whether as 'techies' or investors, regulators, social network users, micro-financers, or countless others, the mainstream of humanity has a stake in this shared utility. The Internet in this sense cannot only be seen from the "supply side", but needs a complimentary "user-centric" perspective. The **Participatory,** and specifically **Multi-stakeholder** engagement**,** dimension of "Internet Universality" facilitates sense-making of the roles that different agents (representing different sectors as well as different social and economic status and not excluding women and girls) have played, and need to continue to play, in developing and governing the Internet on a range of levels. Such participation is premised on the realization of norms about access, and it is also a guarantee for the norms about rights and openness. For UNESCO, participation is essential to the value that the facility can have for peace, sustainable development and poverty

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[23] See Benkler, Yochai (2006). *The Wealth of Networks: How Social Production Transforms Markets and Freedom.* New Haven, Conn: Yale University Press

eradication. In bridging contesting stakeholder interests, participative mechanisms contribute to shared norms that mitigate abuses of this global facility. Again, UNESCO's notion of Media and Information Literacy is important to participation and to the point of view of Internet users and their stake in governance issues.

3. How the concept of "Internet Universality" is relevant to UNESCO

UNESCO has a unique role in promoting "Internet Universality" as it is the UN agency with a mandate that spans social life at large and, within this, has programs that involve the Internet in areas related to Education, Culture, Science, Social Sciences and Communication-information. By elaborating on "Internet Universality" as an umbrella concept, UNESCO can position its more specific concerns such as mobile learning, education for girls, cultural and linguistic diversity, media and information literacy, research into climate change, freedom of expression, universal access to information, bioethics and social inclusion, etc. "Internet Universality" does not cover every activity of UNESCO, but it can be used as an over-arching and integrating concept for Internet-related work across the Organization's programs.

Specifically, the concept also knits together the core aspects of UNESCO's positions on the Internet to date:

Firstly, "Internet Universality" brings on board the Organization's thinking about access norms. The 2003 Recommendation on multilingualism, public domain content, and balance between copyright-holders and public interest, drew attention to issues that are essential components of "Universality". Secondly, the concept draws from the "Reflection and Analysis by UNESCO on the Internet: UNESCO and the use of Internet in its domains of competence" (2011)[24] which reads: "UNESCO's overarching objectives (eg. the building of peace, the alleviation of poverty, sustainable development and intercultural dialogue through education, science, culture, communication and information), and two global priorities Africa and Gender Equality, have natural synergies with the Internet. The Internet is a tool to help UNESCO in fulfilling its mission."

Going further, the concept offers an overview which can enhance UNESCO's understanding of its mid-term strategy of 2014-2021 (37/C4) and its work in the coming quadrennial program (37/C5). In this way, the concept can also help to sum up how UNESCO's engagements with and by the Internet can contribute, through "Universality" norms, to the building of Knowledge Societies and the development of the Post-2015 Sustainable Development Agenda. Thus, UNESCO can effectively use the Internet and contribute to shaping it for optimum normative synergies.

At the operational level, the concept of "Internet Universality" could give practical guidance if it were further elaborated upon in relation to how each program dovetails with some of the four normative elements of "Internet Universality". Some pointers follow:

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[24] http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/ICT/pdf/useinternetdomains.pdf

Education: As suggested in the Final Recommendations of the WSIS+10 review meeting, educational systems going forward should be redefined to support new approaches of education[25]. In this regard, the "Internet Universality" concept in its four component dimensions can encompass ICT-based education, Open Education Resources (OER), E-learning, mobile learning, informatics, innovations, collaborative learning and research, access and the quality of education. UNESCO's Education program has a key role to play in the "Universality" norms for the Internet as regards online rights, openness, access and participation.

Over the past years the Internet has increasingly pervaded every aspect of education, changing the roles of both learners and teachers, transforming the traditional educational landscape and creating multiple opportunities for continuous learning both in schools and out of schools. Internet has already shown that it can significantly contribute to achieving Education for All (EFA) goals, MDG-related education goals and more recently that it can contribute to the realization of the priorities set in UN Secretary-General's Global Education First Initiative. Through its work on Technology in education, and particularly on Mobile learning, UNESCO has already indirectly been making the case for "Internet Universality" and its many benefits for education.

"Internet Universality" and its four key pillars - free and rights-based; accessible to all; openness; and multi-stakeholder driven - are fundamental for UNESCO to achieve its long-term strategic objectives to give a stronger impetus towards the six EFA goals in a last "big push" before 2015 and keeping education high on the post-2015 international development agenda. Challenges such as ensuring quality lifelong learning opportunities for all, acquisition of relevant knowledge, skills and values for a fast changing labor market; high-quality multilingual educational resources; overcoming the gender divide and the acute shortage of qualified teachers are impossible to be addressed without adequate Internet-enabling policies in Member States.

2. **Culture**: Within the "tent" of "Internet Universality", UNESCO can also locate its work in promoting the Internet's role in cultural rights, inter-cultural dialogue and a culture of peace. The same applies to work in access to and preservation of digitized tangible and intangible heritage, diverse cultural expressions, and the role of digital libraries. In the field of publishing, as a component of cultural and creative industries, UNESCO can collaborate in the definition of viable business model providing stronger and durable balance between copyright-holders and public interest. A major contributor to "Internet Universality" is UNESCO's work in serving indigenous culture and peoples, in terms of which – as was recognized in the Final Recommendation of the WSIS+10 review meeting – ICTs can increase opportunities for

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[25] P6
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf.

Indigenous Peoples to use Internet to network, exchange as a community, and create online content reflecting their language, culture and lifestyle[26].

3. **Natural Sciences**: The WSIS+10 review meeting recommended that it is necessary and urgent to prioritize ICTs and operationalize E-science in order to strengthen the interface between science, policy and society[27]. By "E-Science", the paper means sharing data and information over the Internet to benefit society at large and support policy making. "Internet Universality" draws attention to the "Internetization" of scientific and humanitarian information-sharing relating to natural disasters, agriculture, water, security, health, poverty, education, research and innovation and intellectual property. The concept also provides a useful frame for UNESCO's operationalization of web-based platforms to promote more equitable participation in science, technology and innovation (for instance, training stakeholders in developing countries to develop a wide range of services and products including in the area of tsunami warning and mitigation); to facilitate E-science in support of policy making; provide open and free access to scientific knowledge; and to facilitate optimization of national capacities to promote the Internet for pursuing their development objectives.

4. **Social and Human Sciences** : In parallel with the points made above with respect to the Natural Sciences program, UNESCO's programs in the social and human sciences can promote Internet's role in production and dissemination of information relating to the social and human sciences. As a follow-up to the Final Recommendation of WSIS+10 review meeting on encouraging reflection on the ethical challenges of emerging technologies and the Information Society[28], "Internet Universality" can help position UNESCO's work in:
- reinforcing relationships among ethicists, social scientists, policy makers and civil society and assisting Member States to formulate policies on ethical issues related to science and technology through the Internet;
- addressing ethical dimensions of information and knowledge societies;
- facilitating follow-up of international normative instruments.

In addition, recognizing that "Internetization" as defined above is a major factor in contemporary social transformations – affecting processes of production and consumption, social inclusion, political participation and peace, individual and collective identities, and many other key social processes – "Internet Universality" can offer an analytical and normative template for reflection the knowledge societies actually emerging from contemporary technical dynamics. In particular, the concept can draw attention to how social inclusion can be enabled by increasing participation, reducing isolation, providing new opportunities and promoting self-confidence. In particular, by referencing norms of access and participation, "Internet Universality" highlights the

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[26]P21
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf.
[27]P7
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf.
[28]P23
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf.

digital dimension of social inclusion, and conversely it also enriches the digital inclusion agenda with consideration of social dimensions. "Universality" points to considering how people living with disabilities, indigenous people, and vulnerable and disadvantaged persons, can use the Internet and for what purposes. It is inherently an inclusive and anti-discriminatory concept.

5. **Communication-Information**: UNESCO was called upon by the WSIS+10 review meeting to provide a debate on conceptualization of media as they are retooled by digital convergence, to promote new national policy frameworks and to foster multi-stakeholder strategies[29]. "Internet Universality" broadens the conceptualization of media and it can guide related work in regard to how norms of rights, openness, access and participation are relevant online:

- applying in cyberspace the universal human rights principles and international standards related to freedom of expression, and its intersection with privacy.
- fostering Internetization of traditional and mass media to strengthen their roles in the Knowledge Society.
- encouraging development of emerging new and social media and new types of journalism based on digital platforms.
- ensuring promotion of the UN Plan of Action on the Safety of Journalists and the Issue of Impunity, including digital and online safety.
- advancing universal access to information and knowledge, and carrying forward the "Recommendation on the Promotion and Use of Multilingualism and Universal Access to Cyberspace" (2003)[30] .
- promoting local content creation on Internet, as well as digital preservation.
- underlining the importance of empowering users (especially youth) and thus the Sector's work in media and information literacy.

6. UNESCO's priority **Africa** and priority **Gender** have significance within "Internet Universality". Universality intrinsically requires acknowledgement of these priorities. It follows that the concept encourages the mainstreaming of Internet into these two priorities, as well as the mainstreaming of these priorities into those areas of UNESCO's work that have a bearing on the Internet. This point was strongly recognized at the WSIS +10 review meeting.

Finally, UNESCO can also play an important role in creating the conditions for dialogue and bringing together all relevant stakeholders, particularly across sectors, to build consensus at global, regional and national levels – using the "Internet Universality" concept to find common ground. As recommended by the WSIS + 10 review meeting at UNESCO, "*Urgent action is needed by the WSIS Stakeholders, Governments, Private Sector, Civil Society and International Organizations to ensure that everyone has the skills and capabilities to participate in the Knowledge Societies, facilitated by accessible and affordable ICTs.*"[31] "Internet Universality" is

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[29]P22
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf.
[30] http://www.unesco.org/new/en/communication-and-information/about-us/how-we-work/strategy-and-programme/promotion-and-use-of-multilingualism-and-universal-access-to-cyberspace/
[31]http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_recommendations_en.pdf

a way to conceptualize this "participation" and its fundamental importance for building inclusive Knowledge Societies and the Post-2015 Sustainable Development Agenda.

In the ongoing process of WSIS, UNESCO, as a co-leading agency with ITU and UNDP in implementing WSIS outcomes, has been positioning its unique role as a catalyst of enabling ICTs for the content, policy, and capacity development, which are all decisive for closing the existing knowledge divides, building inclusive Knowledge Societies and contributing to the Post-2015 Sustainable Development Agenda. The concept of "Internet Universality" also gives context to WSIS' designation of UNESCO as Action Line Facilitator for "Access"(C3), "E-learning" and "E-Science"(C7), "Culture and language diversity"(C8), Media" (C9) and "Ethical dimensions of the information society" (C10).

Operationally within UNESCO, the concept can also encompass, and encourage the experience of inter-sectoral co-operation and joint-programming among Education, Culture, Science and Social Science and Communication-Information under the WSIS banner, and elevate their status to being initiatives that jointly advance "Internet Universality". Through this, the concept can further assist in guiding UNESCO in defining its unique role for the post-2015 agenda of WSIS.

In the ongoing review of the WSIS, and building on the success of the 2013 WSIS+10 review meeting, UNESCO is increasingly called upon to address concerns and expectations of the global Internet community. Many stakeholders are in search of shared principles, and common frameworks to be used a basis for building sustainable consensus for the future Internet. The "Internet Universality" concept can support UNESCO in addressing these expectations, as well as aid in formulating shared norms for developing the use and governance of the Internet. In particular, UNESCO is a significant platform to animate multi-stakeholder dialogue on aspects of Internet governance pertinent to the Organization's mandate, and to support the further development of "Internet Universality" so as to reinforce UNESCO's overarching objectives of peace, development and poverty eradication.

4. Conclusion

Rooted in history, the concept of "Internet Universality" highlights some issues that are fundamental and unchanging, such as human rights, as well as other issues that are more fluid and evolving (such as openness and accessibility). As such, the content of the concept should retain flexibility and be responsive to developments. However, in the next quadrennium, "Internet Universality" can help to bring together the different sectors of UNESCO to discuss practical ways in which the sum of the Internet-related parts of the Organization becomes a greater whole.

In addition, besides for enhancing internal linkages within UNESCO, the concept also accords with the Organization's service to the international community on envisaging issues like Post-2015 Sustainable Development Agenda in the following respects:

- Laboratory of ideas, including foresight – elaborating the concept and its import, and organizing consultation around it is directly relevant to UNESCO's creative and think-tank potential;
- As a "clearing house", there is an important intellectual role that UNESCO can play in aggregating and disseminating views related to the concept and its four dimensions;
- By stimulating global debate, "Internet Universality" illustrates how UNESCO can be a catalyst for international cooperation, with a holistic and inclusive approach.
- Standard-setter – if the concept of "Internet Universality" gains traction broadly, it could inform the development of a number of (non-technical) but nevertheless measurable standards relating to monitoring the "Internet Universality" in order to advance Knowledge Societies and development;
- As an intellectually empowering concept that also has strategic value, "Internet Universality" could help UNESCO in fulfilling its role as a capacity-builder in Member States.

To maintain the sustainable development of Internet feeding into public interest on a global scale, "Internet Universality" serves an inclusive model, where North and South, and advantaged and disadvantages sectors of the society, can be given full rights and effective opportunities of access (both as format and content providers and as consumers/users). "Internet Universality" also provides a useful normative framework to inform ongoing process for establishing viable legal frameworks and business models involving public and private, civil society and decisions makers. With the promotion of "Internet Universality", UNESCO can play a role as international platform for all the actors concerned.

Looking ahead, "Internet Universality" could follow in the footsteps of previous influential intellectual work by UNESCO such as the concepts of "Intangible cultural heritage" and "Knowledge Societies". "Internet Universality" represents an updated conceptualization of the era and sets a new scene for its mandate to contribute to Post-2015 Sustainable Development Agenda and assist its Member States and international community by stimulating global dialogue and advancing cooperation through a multi-stakeholder approach. In this way, "Internet Universality" could become a valuable contribution to the global discussion about this complex and dynamic human creation and enhance Internet's continued contribution to the future.