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**Submissions from entities in the United Nations system and elsewhere on
their efforts in 2014 to implement the outcome of the WSIS**

Submission by

United Nations Educational, Scientific and Cultural Organization
(UNESCO)

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 18th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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**UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION**

Report by UNESCO on its role and activities in implementing the WSIS outcomes (2014)

*Contribution to the Report for the
Commission of Science and Technologies for Development (CSTD)*

December 2014

Part 1:Introduction

Constantly renewing our vision of inclusive knowledge societies is essential at a time when creating and sharing knowledge has become essential for all societies. During the course of time, UNESCO's initial vision of knowledge societies moved beyond a focus on the information and communication infrastructure to human beings and to processes of learning. Today UNESCO develops ideas for action and proposes to promote inclusive and equitable knowledge societies in a changing environment. Empowering women and men requires not just access to information but the skills to transform information into knowledge.

The current report presents UNESCO's activities in 2014 that have contributed to the advancement of the WSIS goals and in the implementation of the six Action Lines for which UNESCO is a lead facilitator, thus advancing the vision of inclusive, open, diverse and participatory knowledge societies.

Part 2: Description of Programme and Activities undertaken in 2014

2.1. Facilitation of the WSIS outcomes implementation

2.1.1. WSIS +10 High-Level Event

The WSIS+10 High-Level Event was an extended version of the WSIS Forum. The Event was held in the ITU Headquarters, Geneva from 10-13 June 2014, was hosted by ITU and co-organized by ITU, UNESCO, UNCTAD and UNDP. It reviewed the progress made in the implementation of the WSIS outcomes under the mandates of participating agencies, and took stock of achievements in the last 10 years based on reports of WSIS Stakeholders, including those submitted by countries, Action Line Facilitators and other stakeholders. The event reviewed the WSIS Outcomes (2003 and 2005) related to the WSIS Action Lines with the view of developing proposals on a new vision beyond 2015, potentially including new targets. This process took into account the decisions of the 68th Session of the UN General Assembly.

UNESCO's Deputy Director-General, Mr Getachew Engida, as a co-organizer of this second WSIS+10 Review event, laid out UNESCO's inclusive Knowledge Societies vision, highlighted the results of the first WSIS+10 Review Event hosted by UNESCO in February 2013, and stressed: "We need both technologies and the capacities to use them. Alone, technology is not enough. To empower, it must be married with skills, local content and opportunities for all". The Deputy Director-General (DDG) provided participants of the High-level Event also with a new, final, UNESCO proposed compromise text on the Media Action Line. After long negotiations, the UNESCO proposed text was finally accepted without amendment and therefore all Action Line texts could be adopted by the plenary by consensus at this second WSIS+10 Review event, together with the statement and vision texts.

Some 40 Ministers joined the Ministerial Roundtable, which Mr Engida, UNESCO's DDG, opened with Mr. Touré, ITU's Secretary-General. On the Post-2015 discussions, the Deputy Director-General stressed: "Our tasks today are clear -- we must focus where needs are greatest, we must help countries accelerate towards 2015, and we must shape a new agenda to follow, building on achievements and tackling new challenges, particularly in the six WSIS Action Lines UNESCO is facilitating. We must also learn the lessons of experience – and a core lesson is certainly that 'one size does not fit all'. "The ministerial roundtable reaffirmed the importance of linking the post-2015 development agenda process to the WSIS review process. Between the high-level officials, there were also straight forward discussions on the roles different International Organizations might or might not play in the multistakeholder context of Internet Governance.

UNESCO organized the High-level Dialogue on "Inclusive Knowledge Societies: Reality, vision and how to get there..." with the participation of H.E. Mr. Jean Philbert Nsengimana, Minister of Youth and ICT of the Republic of Rwanda, H.E. Mr. Adama Samassékou, President of the Geneva WSIS phase, , Mr. John E. Davies, Vice-President, Intel, Ms. Grace Githaiga, Associate of KICTANet, Dr. Salma Abbasi, CEO of e-Worldwide Group and Mr Indrajit Banerjee, Director, Knowledge Societies Division, UNESCO. At this session, the eminent panellists discussed latest Knowledge Societies trends and developments. The session was moderated by Mr Andrew Taussig, International Institute of Communications. Panellists and participants

discussed key dimensions of an enabling environment for inclusive knowledge societies, contributing with concrete examples and ideas to the debate. You can find the session recording at: <http://www.itu.int/wsis/implementation/2014/forum/agenda/#?se=227>.

UNESCO used the WSIS+10 Review multistakeholder context to present and discuss its comprehensive study on Internet related issues that is currently under preparation. Mr Indrajit Banerjee, Director of UNESCO's Knowledge Societies Division, updated participants on the latest study version and outlined the next steps. He pointed out that "this study will generate ground-breaking research in the area of access to information and knowledge, freedom of expression, privacy and the ethical dimensions of the information society." The study that is available at: www.unesco.org/new/internetstudy and feedback can be provided by email to: Internetstudy@unesco.org.

UNESCO also organized Action Line meetings covering the six domains under its facilitation: Access to information and knowledge, the ethical dimension of the Information Society, media, e-science, e-learning and cultural diversity and identity, linguistic diversity and local content (Links to see the webcasts, access session descriptions and reports are available here: http://www.unesco.org/new/en/communication-and-information/resources/news-and-in-focus-articles/all-news/news/second_wsis_10_review_multistakeholder_negotiations_again_successful_freedom_of_expression_at_the_heart_of_the_negotiations/#.VHRejtH9OUk).

UNESCO also contributed to sessions organized by other partners such as the one on the Egypt 10 Years After... country workshop, and other sessions where UNESCO's Memory of the World programme, and its work in the fields of multilingualism and local content in the Digital Content for inclusive knowledge society workshop were presented.

The co-organizers ITU, UNESCO, UNCTAD and UNDP are fully satisfied with the outcomes, which add to the UNESCO hosted WSIS+10 Review another set of stakeholder developed and endorsed documents as a contribution to the overall WSIS+10 Review at the UNGA in 2015. You can find in Annex 1 a copy of the Final Statement of the first WSIS+10 Review Event.

2.1.2. UNGIS and UNESCO's contribution in 2014

At the High-level United Nations Group on the Information Society (UNGIS) meeting, UNESCO's Deputy Director-General (DDG), the Heads of Agencies of ITU, UNCTAD, UPU, WMO and other high-level UN representatives, renewed their commitment to collaborate closely on using technologies reach current and future development goals. The DDG highlighted key achievements, challenges and outlined a way forward, highlighting that "UNGIS must continue to be strengthened." The high-level leads were translated into a concrete workplan at the UNGIS working level meeting later in the week. This workplan incorporates various UNESCO activities and programmes; such as the international conference 'From Exclusion to Empowerment - The Role of Information and Communication Technologies for Persons with Disabilities' held in

November 2014 in New Delhi; thereby increasing their visibility and supporting participation and partnerships that support UNESCO's efforts.

2.2. Implementation of the WSIS outcomes

2.2.1. UNESCO's contribution to IGF, Istanbul

The 9th Internet Governance Forum (IGF) on "Connecting Continents for Enhanced Multistakeholder Internet Governance" took place in Istanbul, Turkey, from 1 to 5 September 2014. UNESCO organized, co-organized together with its partners or contributed to the following sessions:

- Opening Ceremony
- High-Level Leader Meeting
- One World, Diverse Content and Flexible Access
- Policies enabling Access, Growth and Development on the Internet
- Launch UNESCO publication Digital Safety of journalists
- The Press Freedom Dimensions of Internet Governance
- Building Local Content Creation Capacity: Lessons Learned
- Languages on the move: Deploying multilingualism in the net
- UNESCO Open Forum- Multi-stakeholder Consultation on UNESCO's Comprehensive Study on the Internet
- Will Cyberspace fragment along national jurisdictions?
- Launch of an African Declaration on Internet Rights&Freedoms
- Intermediaries' role and good practice in protecting FOE

UNESCO hosted the Open Consultations and Multistakeholder Advisory Group (MAG) meetings of the IGF in May 2014. The Organization continued in 2014 to play a prominent role in the IGF and to be a driving force in field of Internet Governance, standing for a rights-based, open, accessible and multistakeholder facilitated Internet.

2.2.2. UNESCO Institute for Statistics' (UIS) contribution

Under the auspices of the Partnership on Measuring ICT for Development, UIS identified four indicators to track each of Targets the 2 and 7 of the World Summit on the Information Society (WSIS) framework and Plan of Action. Some of these indicators are also included within the UIS core set of ICT in education indicators, which were submitted to and accepted by the United Nations Statistical Commission (UNSC) at its 40th session in February 2009 (Partnership, 2010). Incidentally, both sets of indicators are a subset of those described in the UIS Guide to Measuring Information and Communication Technologies (ICT) in Education (UNESCO-UIS, 2009a) that includes all current ICT in education indicators and was developed for statisticians and policymakers alike.

At the present time, data on ICT in education is limited to approximately 110 countries surveyed during the various regional data collections, as well as the pilot study in 2009. While approximately half of the world's countries have submitted data on ICT in education, assessment capacity in many countries, particularly from the developing world, remain poor. Data is most readily available on ICT infrastructure, while data on enrolment, expenditures, and teacher training and usage are more difficult to obtain. This is due both to low capacity in Ministries, as well as the finding that ICT in education items are few if not altogether absent in many countries' national school census forms. The two indicators for which data are most readily available currently include: 1) the learner-to-computer ratio, and 2) the proportion of educational institutions with Internet.

In the context of regional level workshops, UIS has been building statistical capacity of national level statisticians in the following regions: Latin America and the Caribbean (2010), Arab States (2011), Asia (2012), Western and Central Africa (2013), and Eastern and Southern Africa (2014). Workshops provide participants (typically from Ministries of Education, Ministries of Communications and Information, or from National Statistical Offices) with an overview of concepts and definitions of ICT in education, explain the survey methodology, and explore solutions and "best practices" to collect data and complete the UIS instrument.

UIS has published its data in two Partnership reports: 1) the World Telecommunication/ICT Development Report 2010: Monitoring the WSIS Targets, A mid-term review (WTDR) (ITU, 2010), as well as 2) the Final WSIS Targets Review: Achievements, Challenges and the Way Forward (Partnership, 2014). In addition UIS has published regional reports on ICT in education, based on its regional data collections, in Latin America and the Caribbean (UNESCO-UIS, 2012), Arab States (UNESCO-UIS, 2013), and Asia (UNESCO-UIS, 2014). A report on sub-Saharan Africa will be published in 2015.

Based on regional efforts and general lessons learnt, UIS is currently organizing a Technical Advisory Panel (TAP) meeting December 2014 that brings together thematic as well as statistical experts to discuss methodological issues to inform the design of the first global ICT in education survey, which will be disseminated to all UNESCO Member States in the 3rd quarter of 2015. Also in the same year, UIS will also produce a revised list of core ICT in education indicators that will be published in a short guidebook/manual.

2.2.3. Access to information and knowledge (Action Line C3)

Access to ICT networks and services has expanded greatly, throughout the world, since WSIS. Meaningful access to ICTs, however, is not just a matter of access to networks and services. Users need to have the capabilities – including at present, for the Internet, literacy – to make effective use of them. Content needs to be available in more than only global languages. It also needs to be affordable and relevant. And for some groups, such as those with disabilities, additional facilities need to be provided which enable them to take advantage of the same opportunities as other people.

Through UNESCO's programme activities and its intergovernmental Information for All Programme (IFAP), UNESCO has been supporting policy and project initiatives aimed at addressing access to information and knowledge by seeking to remove barriers related to multilingualism and disabilities as well as supporting the exchange of practices and knowledge through the development of networks of subject experts and policy-makers.

Building on the momentum that UNESCO created during WSIS for Open Access (OA) to Scientific Information and Research, and as requested by the 195 Member States, UNESCO's Executive Board approved an Open Access Strategy for UNESCO. The strategy contained a set of short, medium and long-term action plans with definite time frame to assist governments strengthen the processes to grant irrevocable right of access to copy, use, distribute, transmit and make derivative works of research works in any format within certain constraints. The implementation of the OA Strategy complements the framework of the Information for All Program (IFAP). The strategy has tasked UNESCO to promote OA, with particular emphasis on scientific information (journal articles, conference papers and datasets of various kinds) emanating from publicly funded research. Working with partners, UNESCO is improving awareness and utility about OA and providing various solutions to foster the benefits of OA among policy makers, researchers and knowledge managers. For this UNESCO takes maximum advantage of its global network of Field Offices, Institutes and Centers. UNESCO's action on OA supports the action line C3 of WSIS process and is directly relevant to improve access to Information and Knowledge.

During 2012-2014, UNESCO made efforts to network and regionalize Open Access. In order to facilitate policy development, UNESCO published a Guideline for Open Access in major UN languages. The guideline serves the needs of OA policy development at the government, institutional and funding agency levels. The overall objective of the Policy Guidelines is to promote OA in Member States by facilitating understanding of all relevant issues related to Open Access. The Policy Guidelines can be used by individuals as a basic text on Open Access and related policies. The Guideline is available in English; French; Spanish, and Arabic. A few interested countries, such as Mexico, St. Kitts and Nevis and Cambodia were given policy development support.

In order to improve tracking of Open Access, UNESCO developed a set of indicators for Latin America and Africa Technology improvement for Open Access. UNESCO also undertook a global scan of the OA processes and launched the Global Open Access Portal (GOAP), which provides country-wise distilled knowledge on the status of Open Access, key organizations engaged in OA and presents critical assessment of major barriers to OA for each country. In order to improve this further, UNESCO also developed a Directory of Open Access Resources (ROAD) for all countries around the world. Together with ROAD, GOAP now provides access to all Open Access scientific information of at least 149 countries around the world. Simultaneously, UNESCO organized a series of regional consultations for Open Access to identify regional specificities and draw up effective regional plans for OA. The published document has already been downloaded over 10,000 times and has been acknowledged as a milestone document to assess growth and development of OA in the Latin American and Caribbean region.

Currently UNESCO is working in the Middle-East and Nord Africa on a strategy that links Open Access with Open Sciences. At the global level, UNESCO is currently working to make Open Access inclusive by bringing the issue closer to people with various kinds of disability. UNESCO is also concerned about the role that Open Access can play in realizing post 2015 goals, a dedicated research is currently ongoing to identify the potentials of Open Access within the broader context of SDGs.

Another important enabler of access to information and knowledge is language. In concert with institutional partners in the Arab States, UNESCO has been engaged in the development of glossaries for the Arabic language which specifically focus on supporting the development of Arabic terms in the field of Internet Governance. The development of such terminology is crucial to the full participation in the international debate on this critical issue by supporting the quality assurance of interpretation at key international forums, the subsequent translation of text and their incorporation in national policy and legislation. This project is also contributing to reinforcing national capabilities and providing the relevant policy and institutional infrastructure to support increased presence of Arabic content in the digital world by supporting the development, adoption and awareness of relevant standards.

The International conference “*From Exclusion to Empowerment: Role of ICT for Persons with Disabilities*” was organized in New Delhi, India, from 24-26 November 2014 by UNESCO and the Government of India. The event focused on leveraging Information and Communication Technologies to ensure that persons with disabilities, who represent a global population of about 650 million people, can overcome barriers to information and knowledge and participate in knowledge societies. This event, the first ever high-level conference of its kind to promote the human rights and fundamental freedoms of persons with disabilities enhanced through ICTs, brought together some 1,000 decision-makers, experts, representatives of civil society and IT industry. The conference provided a forum to explore the choices and opportunities available to people with disabilities with specific attention given to education, information and knowledge, as well as economic empowerment through improved access to work and social inclusion.

Challenges:

Large disparities with regards to access to information and knowledge persist with considerable geographical, socio-economic, gender, age and rural-urban divides. The importance of understanding local customs, traditions and perceptions is, however, increasingly recognized. With the wider definition and understanding of access issues, the difficulty of measuring access and progress made becomes more difficult too. Developing national, regional and international data systems and indicators that are comprehensive, policy relevant and reliable for the proper understanding, monitoring and development of access to information and more difficult, knowledge, remains an important and potentially resource intensive challenge.

Ways forward:

Access to information and knowledge is at the heart of UNESCO’s work to promote inclusive Knowledge Societies. The ten years since WSIS have seen a shift in emphasis from access to infrastructure towards access to skills and content. This will continue. The next five years will see rapid continued growth in the number of people having Internet access, and so gaining much greater access to information than was previously available to them. The continued deployment of broadband networks will also improve the ease of access to information, particularly for

businesses, educational institutions and those with access to networked computers and/or smartphones.

This growth in access to communications facilities must be accompanied by greater access to the resources that people, businesses and communities require in order to transform information into knowledge which can enhance their lives and livelihoods. UNESCO and other stakeholders in this Action Line will continue to emphasize the importance of developing and enabling open access to content, stimulating local content, and enabling access for all through multilingualism, facilities and outreach to currently under-represented groups. Open data will be a particular area of importance for all stakeholders. It will also be important to develop more effective indicators for inclusion, diversity and empowerment.

2.2.4. e-Science (Action Line C7)

Operationalizing e-science to strengthen UNESCO's contribution to the Post-2015 Development Agenda continues to be part of UNESCO's efforts in relation to the WSIS process. 'Conventional', experimental science and e-science are mutually reinforcing. The former informs the methodologies used in e-science while, e-Science is revolutionizing experimental science by changing the definition of the research agenda; the way in which research is conducted; who participates in it and at what levels; how the results and data are shared; the pace at which policymakers, scientists and individuals' access knowledge; and who is involved in ensuring that research informs policy.

E-Science contributes to the advancement of the body of knowledge by facilitating more collaboration between disciplines irrespective of geographic locations, research infrastructures and organizations. The use of information and computing technology in science is also changing how science influences decision-making processes by providing easy and often open access to information and data, both those collected in-situ as well as remotely i.e. through satellite operations. Therefore, e-science will play a major role in response to the call for the data revolution that is necessary for sustainable development and the basis for a Global Partnership on Development Data that is needed to effectively measure and monitor the targets of the Post 2015 Development Agenda. Additionally, e-science takes into account the increasing use of mobile technology in research and its follow-up efforts. More generally, e-science has become increasingly intermingled with 'citizen science' and the use of mobile and web technologies to enable a more open and responsive scientific process and to contribute to providing relevant and timely information for perusal by scientists and policy-makers and ultimately by society at large. Because citizen science facilitates the inclusion of isolated and marginalized groups and is a very effective way of mobilizing and involving the youth in science, e-science has an increasingly evident societal relevance beyond the collection of data and the generation of new knowledge.

E-science provides a platform through which Science, Technology and Innovation (STI) can be used as a means to tackle concrete issues such as biodiversity loss, water quality and availability, food security, including from coastal and ocean areas, droughts, floods and other the reduction of the risks related to other disasters, health, education, energy, and economies – among other.

Improving access to scientific knowledge, the science policy process and information-sharing has been major achievements of this action line. For 2014, the Global Observatory of Science, Technology and Innovation (STI) Policy Instruments programme (GO→SPIN) is a good example. GO→SPIN consists of a cluster of databases equipped with graphic and analytical tools which has the potential to be the first global observatory on STI policies that can provide end-users with structural information on STI national systems, descriptions of STI national priorities and goals, STI legal framework texts, a complete inventory with a full description of STI operational policy instruments, international cooperation strategies, long-term temporal series of indicators on STI, innovation surveys, as well as data on gender equality, economic, energy, environmental, governance and social issues. GO→SPIN has been devised for knowledge brokers, planners, managers and administrators of science and technology in governments, parliaments, universities, research institutions, production enterprises concerned with innovation, international organizations working for development, and researchers and specialists whose work and interest involve STI policies.

In 2014, UNESCO contributed to the WSIS review process inter alia by organizing a session on global data and information observatories and the role of e-science (Geneva, June 2014). Building on the high-level event organized by UNESCO in February 2013 during the UNESCO-hosted the 10-year review meeting of WSIS, the Organization advocates the need for expert work in this area focusing on emerging trends and best practices in e-science, and the mapping of, and risks and opportunities offered by, applications of e-science in relation to the post 2015 development agenda.

Challenges:

A number of efforts are on-going which contribute to the e-Science WSIS Action Line. A major challenge remains, however, establishing and sustaining activities to support and highlight emerging trends such as the use of web-based and mobile technology in developing countries to improve scientific activity and provide improved services in areas such as health, agriculture and education.

Ways forward:

Future efforts should focus on aligning expert work on operationalizing e-science for the future Sustainable Development Goals (SDG) and the post-2015 development agenda. In this regard, partnerships that can form the basis of advancing e-science related efforts will be critical to the contribution of e-science to sustainability. UNESCO wishes to advance existing efforts and new ones which started as a part of the WSIS +10 Review frameworks relating to Citizen Science and the establishment of the e-science platform to strengthen the interface between science, policy and society. These activities will aim to:

- i. Improve access to Scientific assessments on climate change, biodiversity and ecosystem services and agriculture by creating a web-based platform (with complementary mobile applications) based on a multidisciplinary knowledge system that critically reviews and synthesizes new knowledge in as a real time as possible;
- ii. Use e-science to promote data and knowledge exchange, provide relevant and timely information for citizens, scientists and policy-makers that will improve decision making, science, policy and society relations and standards of living, particularly for marginalized communities;

- iii. Strengthen policy and programme activities in Citizen Science by encouraging the use of the internet and mobile technologies to facilitate greater participation of civil society in the entire scientific process;
- iv. Facilitate more public and private partnerships to promote e-science in the post 2015 development agenda.

2.2.5. e-Learning(Action line C7)

With regards to e-learning the leveraging of new technological innovations is key to support the development of inclusive Knowledge Societies. The range of ICTs which can be used in non-formal education, schools and colleges, and in lifelong education, is constantly increasing. Particular attention has been paid in recent years and particularly in 2014, to the use of low-cost access devices and to mobile phones which are widely available to teachers and students. The effective harnessing of ICT in education has the potential to bridge quality gaps between institutions separated by geographic barriers, improve resource sharing, address information asymmetry, and therefore improve efficiency and quality of overall educational output. In 2014, working with its partners in the Action Line, UNESCO has i.a.:

- Provided support to teacher training institutions in ensuring teachers appropriate the necessary skills and competencies to effectively integrate ICT in the classroom, through the UNESCO ICT Competency Framework for Teachers (ICT CFT);
- Continued supporting the development and use of openly licensed learning materials through our Open Educational Resources (OER) initiative, particularly through the development of teacher training materials, policy and advocacy activities;
- Developed the Youth Mobile Initiative through which UNESCO and its partners strive to provide young people with the high-level skills and confidence to develop, promote, and sell locally relevant mobile apps that solve local issues of sustainable development and provide employment. Youth Mobile builds on the experience of many worldwide initiatives that introduce young people to computer science programming (learning-to-code) and problem solving (coding-to-learn). It also seeks to build on experiences targeting young women who are vastly underrepresented in this field.
- Promoted the inclusion of ICTs in national and global approaches towards meeting the Education for All targets, and published research on the educational outcomes of ICTs;
- Promoted debate and policy development on media and information literacy;
- Led the work of the Broadband Commission for Digital Development's Working Group on Education.

UNESCO has strived to ensure a focus for multistakeholder discussion and for the development of multistakeholder partnerships concerned with ICTs in education. UNESCO has successfully

established partnerships for its programme implementation with intergovernmental organizations such as the World Bank, other UN organizations such as the International Telecommunication Union (ITU), and the Commonwealth of Learning. We have also established strategic links to relevant non-governmental organizations and foundations and private sector thus cooperating with entities such as the William and Flora Hewlett Foundation.

Challenges

Education is of fundamental importance in enabling societies to transform information resources into knowledge, which can accelerate social and economic development. While considerable experience has already been gained in the use of ICTs in both formal and non-formal education, more research is needed into the best ways of integrating ICTs in education, in order to maximise learning outcomes and enhance educational management and information systems. Attention to implementing strategies, which meet the challenges caused by the digital divide and which serve even the most disadvantaged populations, is a priority. Particular attention is paid to ensuring that the main education stakeholders: government, institutions, teachers, and of course learners, have both the tools and skills to effectively participate in cutting-edge learning and teaching activities.

Looking to the future

Particular attention will be paid to ensuring an inclusive environment, which allows for the participation of all stakeholders in emerging Knowledge Societies. This includes educational policies with clear priorities, with capacity development of key institutions and actors, including teachers, with content and curriculum development efforts and the systematic evaluation of all initiatives. Of increasing interest today are distance and online education, including Massive Open Online Courses (MOOCS). The key objective of ensuring that all learners, regardless of geographic, physical or social boundaries, can make use of ICTs to access and benefit from quality teaching and learning activities becomes increasingly important.

2.2.6. Cultural diversity and identity, linguistic diversity and local content (Action line C8)

The initiatives implemented under Action Line C8 are diverse, taking place at all levels, from local training of indigenous youth, to global networking between Creative Cities. Trends demonstrate a growing understanding and promotion of the role of culture in advancing inclusive, sustainable social and economic development. This is demonstrated, for example, by the recent United Nations Resolution A/RES/68/223 “Culture and Sustainable Development”, which stresses the importance inter alia of multilingualism and the diversity of language, cultural creativity and innovation, heritage supporting dialogue, reconciliation and recovery, and mastering information and communications technologies and in gaining access to new technologies on mutually agreed terms. UNESCO’s Member States also call for targeted initiatives in capacity building and sharing of knowledge and experience, as well as policy development. ICT and inclusive knowledge societies are an integrated aspect of the programme work. For example projects in heritage and creative industries are integrating ICT to promote and raise awareness, and to strengthen training materials and data collection, making material more

user friendly and accessible. Programmes adhering to Action Line C8 have a multistakeholder dimension, and this is strongly encouraged in project design and implementation.

Challenges tend to include the lack of funds, and the need for political support to give priority to culture. The goal of systematic inclusion of culture in national development policies and strategies is being pursued.

A sampling of programmes and initiatives in the area include:

UNESCO's report "Gender Equality: Heritage and Creativity" was launched in October 2014. It demonstrates the need for deeper debate, research and awareness-raising on the need for equal rights, responsibilities and opportunities for women and men, boys and girls in the fields of heritage and creativity. It includes recommendations for governments, decision-makers and the international community, including training for women in ICTs.

The 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions, with 134 Parties, aims to ensure that artists, cultural professionals, practitioners and citizens worldwide can create, produce, distribute and enjoy a broad range of cultural goods, services and activities, including their own. It calls for an integrated approach including the participation of various government ministries/departments, as well as civil society and the private sector. The International Fund for Cultural Diversity (IFCD) supports numerous projects, which are implemented with public institutions, NGOs and other international civil society partners. Many of these projects focus on capacity building and training of young cultural entrepreneurs, strengthening local cultural and creative industries in developing countries, including training projects for youth and indigenous communities in audio-visual and broadcasting techniques. The Governing Bodies of the Convention in 2014 have given special focus to the current status and follow-up of digital issues as related to the Convention. Digitization issues are also specifically reported on by Parties in their Periodic Reports on implementation of the Convention, and the findings analysed in Committee Information Documents, which inform debate on this issue.

In October 2014 UNESCO launched a survey to Member States and civil society organizations to assess implementation of the 1980 Recommendation concerning the Status of the Artist. Highlighting that today's artist face increasing opportunities and challenges because they operate in a globalized and digital age marked by economic and/or social transitions, shifting communication, trade and consumption trends, and rapidly evolving technologies, the Survey has put in focus "Digital technologies and the Internet". Results will be included in a Consolidated Report to be presented to the UNESCO General Conference in 2015.

The UNESCO New Delhi e-Heritage Project partners with Indian cities to bring heritage into the digital space, with the objectives to build capacity of municipalities to document their heritage, build their own websites, and train local communities in the preservation of heritage sites both physically and virtually. Partners include Digital Empowerment Foundation, Indian Heritage Cities Network.

In the context of the National Conference on the theme of 'ICTs for Persons with Disabilities: Taking Stock and Identifying Opportunities' (New Delhi, November 2014), UNESCO New Delhi established a voluntary working group to develop special services with ICTs to allow persons with disabilities to enjoy the National Museum and the National Gallery of Modern Arts,

India. Partners: OKC, National Gallery of Modern Art, the National Museum, School of Planning and Architecture (SPA) Bhopal, National Council for Education, Research and Training (NCERT), Delhi University, Google Cultural Institute, Deakin University (Australia), Saksham Trust and several NGOs working in the area of art education and with PWDs and ICT assistive technologies.

The UNESCO Heritage Division is aiming to diversify tools for public outreach through ICTs, including App versions of World Heritage and other heritage publications (e.g. i-pad and android applications such as one for children on the underwater cultural heritage Alexandria, Egypt) and portals (e.g. Portal of Culture of Latin America and the Caribbean (www.unesco.lacult.org) covering also the 20th Anniversary of the Slave Route project). The Silkroad on-line platform is building active links between people from different communities along the length of these routes and its knowledge bank (<https://en.unesco.org/silkroad/knowledge-bank>) greatly improves access to information promoting inclusive knowledge societies aiming for a pluralistic approach and sustainable development. Furthermore a searchable on-line information system on the state of conservation of World Heritage sites is fully operational and extensively used by stakeholders globally (<http://whc.unesco.org/en/soc/>).

In 2014 the Observatory for the Safeguarding of Syria's Cultural Heritage was established under UNESCO's Office in Beirut. It aims to develop and maintain an online platform where national and international stakeholders will share information on damaged structures, looted artefacts and all forms of endangered intangible heritage. This will allow the monitoring of buildings, artefacts and intangible cultural heritage to combat illicit trafficking and collect information to restore heritage once the fighting is over.

“Digi Monastery: Treasure Caretaker Training” is a UNESCO New Delhi project teaching monks, nuns and cultural caretakers to develop digital documentation and inventories of their cultural heritage treasures, and to interview elders and practitioners, with personal electronic devices. The project is next expanding to Bhutan.

The UN-EU project “Operationalizing Good Governance for Social Justice in Kyrgyzstan” implemented by UNDP, UNICEF, UN-Women and UNESCO aims to increase the potential for the realization of legitimate rights of citizens regarding public services, especially for vulnerable groups, women, youth and children, in 30 rural municipalities. UNESCO Almaty is developing and expanding platforms for communication, dialogue and diversity through 1) introducing community media from villagers and communities to local and national government officials and 2) building a platform for dialogue through networking of existing and new forms of media to strengthen skills of rural populations on reporting community issues, as well as exchange of experiences related to everyday life, cultural identity and practices. Using existing Community Multimedia Centres, the project has built bottom up participatory communications, channelling rural stories on the policy making level. In addition UNESCO Almaty produced the mobile application “Voice of Aiyl” for rural and marginalized communities to help in sharing local experiences on accessing public and municipal services and issues related to cultural and linguistic diversity.

The UNESCO Creative Cities Network enhances international cooperation with and between cities that have identified creativity as a strategic factor of sustainable development. In line with UNESCO's priorities on "culture and sustainable development", these designated cities collaborate at a global scale and drive partnerships involving private and public actors, professional organizations, civil society, and cultural institutions in order to unlock their creative potential and contribute to more diverse and vivid economies and societies. 41 cities are currently part of this fast-growing Network covering 7 creative fields: Literature; Cinema; Music; Arts & Crafts; Design; Media Arts; and Gastronomy. The Network uses on-line platforms to facilitate access to resources and experiences to all member cities as a means to cultivate innovation, share knowledge across cultural clusters, promote the development of local creative industries, and foster worldwide cooperation for sustainable urban development

In the area of Multilingualism in Cyberspace and in order to enhance UNESCO's Recommendation concerning the "Promotion and Use of Multilingualism and Universal Access to Cyberspace", support was provided to the organization of the 3rd International Conference "Linguistic and Cultural Diversity in Cyberspace" in the Russian Federation from 30th June to 1st July 2014. From 28 to 29 October 2014, in cooperation with the Government of Khanty-Mansiysk Autonomous Okrug-Ugra (Russian Federation), the Permanent Delegation of the Russian Federation for UNESCO and the Russian Committee of UNESCO's Intergovernmental Information for All Programme (IFAP), UNESCO's Knowledge Societies Division organized a two-day international expert meeting on multilingualism in cyberspace. The event gathered experts from 50 countries and focused on supporting Member States to more effectively implement UNESCO's Recommendation Concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace (2003), on advancing the recommendations adopted by the International Conference, "Linguistic and Cultural Diversity in Cyberspace", and also on developing a plan of action aimed at transforming UNESCO's Atlas of the World's Languages in Danger into a global platform for sharing languages resources and technological solutions, monitoring and promoting the world's languages.

The meeting produced an action plan and recommendations aimed at: i) supporting national policy development and the adoption of strategies for promoting language survival in cyberspace, language learning and universal access to cyberspace; ii) promoting the development and dissemination of technological solutions, best practices and standards that facilitate access to multilingual content, including automatic translation and intelligent linguistic systems; and iii) strengthening multi-stakeholder international cooperation and partnerships to support capacity building and access to resources. Several concrete proposals were also elaborated to upscale the existing Atlas of Languages in Danger towards a UNESCO World Atlas of Languages. This atlas will also provide an online platform for monitoring and promoting most worlds' languages as well as for providing an online space for relevant language institutions of UNESCO's Member States to share their e-content on languages using open and inclusive technological solutions.

UNESCO in close cooperation with EURid continued monitoring the deployment of Internationalized Domain Names (IDNs). The draft version of the World Report on IDN Deployment 2014: Universal Acceptance and Arab States has been completed and is currently being peer reviewed. Within the framework of the WSIS Review process, a glossary of Internet

Governance terms in English has been prepared by UNESCO for the localization of the glossary in Arabic.

Challenges:

This Action Line brings together both broad general themes, which affect all societies, and the specific needs of particular, often marginalised, communities. The impact of rapidly changing technologies and markets on cultural diversity is, and will continue to be, complex. On the one hand, new technologies enable greater communication and knowledge sharing in developing countries, not least for marginalised communities, offering new ways to them of maintaining cultural traditions while benefiting from innovations in other societies. On the other hand, there is a risk that traditional cultures and languages will be overwhelmed by the global cultures and languages which predominate online.

Ways Forward:

By fully implementing normative tools and policies based on a culture-led vision of sustainable development, the international community aims in the framework of the C8 Action Line at building inclusive Knowledge Societies, which reflect and support the current linguistically diversity; where development takes into account local contexts, builds on the knowledge generated by all communities, promotes innovation and creativity, and allows all human beings to practice their own culture and enjoy that of others free from fear; where artists, cultural professionals and practitioners are empowered to create, produce, disseminate and enjoy a broad range of cultural goods, services and activities; and where traditions or living expressions inherited from our ancestors are safeguarded for future generations.

UNESCO and other stakeholders in this Action Line must continue to respond to these complex challenges by fostering access, including multilingual content and capabilities, for all cultures and language groups, and by reinforcing the standards and other mechanisms (such as multilingualism) which are required for genuine universality to be achieved. More disaggregated data sets are desirable in order to improve understanding of the impact of ICTs and the Internet on marginalised communities, and facilitate this approach.

UNESCO will continue to promote cultural and linguistic diversity, and to support development, which takes local contexts into account, building on the knowledge generated by all communities while promoting innovation and creativity. It will focus attention on indigenous peoples within its work on cultural and linguistic diversity, placing their own knowledge and experience at the heart of initiatives to address their needs, concerns and opportunities, and will also pay attention to the needs of ethnic minorities, migrant and diaspora communities. UNESCO will support efforts to ensure the survival and continued relevance of tangible and intangible heritage, as well as helping to empower artists, cultural practitioners and the wider public to create, produce, disseminate and enjoy a wide range of cultural goods, services and activities.

For the post-2015 development agenda process, culture is increasingly recognized by Member States as a powerful driver and an enabler for sustainable development. The link between cultural heritage, cultural and creative industries, of sustainable, cultural tourism, cultural infrastructure and poverty alleviation has been established, but also non-monetized cultural

benefits, such as social inclusiveness, resilience, creativity are increasingly linked to innovative uses of technologies, as shown in post-2015 think pieces and debates.

2.2.7. Media (Action Line C9)

The overarching global trend with respect to freedom of expression and media development in the past years is that of disruption brought on by technological developments, including of mobiles and of the Internet. These have meant an expansion of media platforms and increase the potential for free expression. But the challenge is there remain problems of media concentration and media convergence which has also led to emerging threats to freedom of expression and to privacy, including of journalistic sources and processes. These threats have included the data-mining, filtering and surveillance capabilities that digitized media enables. This is compounded by the exclusions related to the digital divide.

The safety of journalists has attracted more attention at the global level, but casualties have continued to rise and impunity for the killers of journalists has remained as the predominant trend. This poses a continuing challenge. UNESCO has played a leading part and works closely with the international community and all stakeholders, in promoting media freedom and freedom of expression including on the Internet, in building the capacity of journalists and media organizations, and in developing understanding of the interaction between traditional and new media.

The overall achievements in 2014 are embodied by below flagship activities:

The main celebration of the World Press Freedom Day (WPFDD) took place in UNESCO Headquarters from 5-6 May 2014. The event was organized by UNESCO and included an international conference entitled “Media Freedom for a Better Future: Shaping the Post-2015 Development Agenda”. The Paris Declaration was submitted to UN Secretary-General, Mr Ban Ki-moon as one of UNESCO’s contribution to the post-2015 sustainable development debate. Globally, more than 100 events took place around the world. The WPFDD brought together over 400 participants from 86 nationalities. 47 percent of the participants were women. There were 68 speakers in nine sessions, 30 of them were women.

UNESCO continued promoting freedom of expression and privacy and triggering debates related to Internet freedom at a number of international fora including the ninth Internet Governance Forum held in Istanbul, Turkey, from 1-5 September 2014. UNESCO presented key outcomes from two crucial studies on digital safety of journalists and the role of Internet intermediaries in fostering freedom online, published in UNESCO’s flagship series publication on Internet Freedom in 2014. UNESCO also joined UN Steering Committee for the Development of a Coherent UN internal Strategy on Cybersecurity/Cybercrime and contributed to this strategy by reinforcing a human rights and rule of law-based approach to cybersecurity and cybercrime within the framework of the UNESCO developed “Internet Universality” principles.

UNESCO successfully partnered with a high number of external organizations in order to promote World Radio Day on 13 February 2014 and to set the agenda in the media on gender equality. Through reciprocal link exchanges and cross promotion on social media channels, UNESCO's message was carried by 11 UN organizations and 13 international broadcasting organizations. Furthermore, 145 broadcasters around the world registered events on WRD Crowdmap, making up the majority of the above-mentioned 248 registered events. From 2 January to 28 February, WRD website scored 85,986 unique page views. The page received 36,767 unique page views on 13 February alone.

More and more countries are recognizing the significance of enabling media and information literacy for all citizens to achieve freedom of expression, a safer Internet, critical engagement with media and technology, equality, and intercultural dialogue and diversity in all forms of media online or offline. This is evident in the over 70 countries that are implementing media and information literacy activities in varying degree and reach. Yet only a handful of countries have developed national MIL policies. The UNESCO-led Global Alliance for Partnerships on Media and Information Literacy (GAPMIL) continues to grow. Within the frame of GAPMIL over 350 representatives from Member States from all of Europe and 15 countries outside of Europe participated in training and debate sessions held from 27-28 June. Participants adopted the Paris Declaration on MIL in Digital Age, which calls for a multi-stakeholder approach to making MIL a viable intervention to empower citizens to be critical of information and media content and to address issues of cyber security and online safety of young girls and boys. It calls for an acceleration of national policies and strategies that favour media and information literacy as complementary to technological skills. The Asia-Pacific Chapter of the Alliance was launched during the recent Global Media Forum in Bali, Jakarta from 27-28 August. The Alliance recently promoted the Media and Information Literacy and Intercultural Dialogue Week 2014 in Japan and China, from 23 to 28 September. 2014 MILID Week was kicked off on Tuesday 23 September with an International Symposium hosted by the Hosei University in Tokyo, Japan.

Several decades of research, 1970s, 80's and 90s have yielded the same results – women are underrepresented in media staffing at all levels, including in decision making and in media content. This is fact. 20 years later research still shows that there are noticeable but slow changes in respect to women's role in media and technology. The international steering committee of the UNESCO-led Global Alliance on Media and Gender (GAMAG) held its first meeting in Geneva from 4-6 November 2014. Over 500 media, civil society, governmental organizations have joined forces to ensure acceleration of the media and gender objectives of the Beijing Declaration and Platform for Action and push for recognition of this theme in the Post 2015 development agenda. UNESCO's Gender-Sensitive Indicators for Media have been tested in Liberia and the Democratic Republic of Congo and has inspired consultative discussions and activities in Djibouti, Congo, Malawi; Mongolia and Thailand.

Fourteen members of the Southern African Broadcasting Association (SABA) and 4 media training institutions located in the region, and more than 40 members of the Caribbean Broadcasting Union (CBU) have improved their knowledge to promote gender-sensitivity in the media and commit to taking concrete steps to develop relevant internal policies. To strengthen the access of youth to MIL, in February 2014 UNESCO in cooperation with Athabasca University and the MIL and Intercultural Dialogue University Network launched an online MIL course which focuses on intercultural dialogue and gender equality and developed in general.

Following the UN General Assembly Resolution 68/163 and Human Rights Council Resolution 21/12, both of which calls for better safety of journalists and the issue of impunity, on 2 November 2014, the global community celebrated the inaugural International Day to End Impunity for Crimes against Journalists. UNESCO convened the 3rd UN Inter-Agency Meeting on the Safety of Journalists and The Issue of Impunity on 4 November 2014 in Strasbourg, jointly with OHCHR and the Council of Europe. This meeting reviews the first two years of implementation of the UN Plan of Action from 2013-2014, including the successes, challenges, lessons learnt as well as to discuss steps for the future implementation of the UN Plan of Action.

In 2013-2014, UNESCO's International Programme for the Development of Communication (IPDC) supported a total of 143 media development projects, benefitting 77 developing countries across the globe. US\$ 2,287,340 was channelled to these projects that are being implemented by local media organizations working to expand opportunities for free, independent and pluralistic media. The fourth Report by the UNESCO Director-General on the Safety of Journalists and the Danger of Impunity was presented at the IPDC Council session in November 2014. It provided an overview of the killings of journalists condemned by the Director-General during the previous two years as well as an update on the status of the judicial enquiries into these killings. A thematic debate on 'Online Privacy and Freedom of Expression' was also organized as part of the IPDC Council's biennial session.

The scope of the UNESCO Media Development Indicators (MDI) initiative is steadily increasing. Designed to enable in-depth assessments of national media landscapes using a commonly agreed upon framework, the MDIs have to date been applied by UNESCO in 12 countries, with assessments ongoing in another 20 countries. The most recent assessment reports to have been published are those of Palestine, Nepal, Gabon, Egypt and Tunisia. A regional training workshop targeting senior media experts from the Arab region was organized in Jordan in March 2014 to develop a pool of potential partners for MDI assessments planned in the Arab states. Following the development in 2013 of a sub-set of indicators on Journalists' safety which are currently being pilot in Guatemala, Honduras and Pakistan, UNESCO is now working on a new sub-set of indicators on media sustainability.

UNESCO has also launched "World Trends in Freedom of Expression and Media Development" in 2014, which captured the overarching global trend with respect to media freedom, pluralism, independence and the safety of journalists over the past several years. The report has been presented in a number of countries and regions, with its-in-depth regional reports of all five continents available on UNESCO's website: <http://www.unesco.org/new/en/world-media-trends>.

Furthermore, in the area of journalism education, UNESCO launched the Global Initiative for Excellence in Journalism Education, which seeks to promote globally shared excellence in teaching, researching and practicing journalism. A key feature of this initiative is collaboration in the production of specialized journalism syllabi, resulting in the publication of the book entitled Model Curricula for Journalism Education: A Compendium of New Syllabi. The book includes such syllabi as media sustainability, data journalism, science journalism, intercultural journalism, global journalism, etc. This publication is currently being piloted in several schools of journalism in Africa, Latin America and Asia. More importantly, countries in the developed North,

including France, have also started looking at some of these syllabi to enrich their own curricula designs (e.g. a researcher at Grenoble University used the syllabus on global journalism to reinforce her own bibliographical references).

In collaboration with the UN Food and Agricultural Organization and the World Association of Community Radio Broadcasters, UNESCO supported the discussion about the potential of community radio as an essential component of rural communication service at the International Forum which took place at FAO HQs in Rome on 23 and 24 October 2014. UNESCO shared findings of a comparative international survey on community radio policies and regulatory provisions clarifying the fundamental role of independent and pluralistic media landscapes in the advancement and development of rural communities. The final statement of the International Forum on Communication for Development, Community Media and Rural Communication Services concluded with recommendations that underline the need to strengthen “legal recognition to create a regulatory environment for independent and pluralistic community radios including simple licensing processes, equitable reservation of frequencies and robust funding possibilities” and urge Member States “to invest in reinforcing community-based communication services and up scaling good practices” including to ensure their affordability to rural women and youth.

In February 2014, UNESCO launched the Networks of Mediterranean Youth project (NET-MED Youth), supported by the European Union, which has committed €8m to it for the next three years. Implemented by UNESCO’s Social and Human Sciences, Communication and Information and Education sectors and covering 10 Southern Mediterranean countries, the project aims to contribute to the creation of an enabling environment for young women and men to develop their competencies, exercise their rights and meaningfully engage as active citizens. It includes a strong media component, to ensure a fair and objective coverage of youth news, rights, achievements and perspectives in mainstream media; along with the positioning of youth vis-à-vis national policies and programmes particularly affecting them. It includes efforts to monitor youth’s representation in media, survey youth’s opinion about media and underpin youth-led outreach actions targeting media in their respective countries. The project promotes young people’s awareness of freedom of expression, their empowerment through media and information literacy, and their involvement in media production. It also seeks to reinforce the capacities of young journalists, bloggers and citizen journalists; while also strengthening South-South and North-South exchanges between them.

In the final and third year of UNESCO’s project promoting freedom of expression in Arab States supported by Swedish International Development Agency, successful activities and initiatives focus in areas including legal support to media; journalists safety -including digital security with specific attention on women journalists; introduction of media safety module to universities’ curricula; media regulation and legislation amendment; provision of information platforms for refugees through radio programmes; and World Press Freedom Day celebrations. The project also provided a variety of trainings on various topics including human rights based approach, gender sensitive electoral coverage, role of civil society and media in protecting tolerance and diversity, and photojournalism in the age of new media. Special publications and awareness raising products were produced including a periodical newsletter “Women and Media in the

Maghreb”, a poster on gender media coverage, and a newsletter published by the Youth Newsroom as part of World Press Freedom Day 2014.

Challenges:

The nature of media will continue to change rapidly, with the development of more online alternatives to traditional media and continued expansion in opportunities for expression, including citizen journalism. New opportunities for media freedom are likely to be met by new types of violation of that freedom, including blocking and filtering of online content and the inappropriate use of surveillance and data mining techniques.

Ways forward:

New initiatives should be taken as following:

- Consider Internet a core issue which has profoundly impacted media’s scope, reach and richness, as well as its breadth of direct stakeholders and its sustainability. An expanded role of media and new media based on Internet /mobile and digital platforms as promoted by WSIS Action Line C9, is more valuable than ever, in fostering transparent and good governance and contributing to rights-based and sustainable development goals of the post-2015 agenda.
- Develop consolidated ICTs-media policy frameworks based on multi-stakeholder strategies (between governments, private sector and civil society organizations) in the areas of Freedom of expression, safety of journalists and bloggers as well as media development.
- Address the balance between online freedom and other rights such as privacy, as well as the increased complexity of defending freedom of expression, the safety of journalists, and the advancement of media development in the digital era.
- Defending public service media practice and developing community media (both on and offline) need to be further explored.
- Continue the ongoing multi-stakeholder consultative and participatory process for updating post-2015 strategy and formulating a coordinated strategy with stakeholders including UN agencies on the implementation of Action Line C9 media feeding into post-2015 development agenda.

2.2.8. Contribution to the Action Line C10: Ethical dimensions of the Information Society

During 2014 UNESCO has continued to make significant steps to advance the objectives of the C10 Action Line both through its programmatic activities and in concert with other partners. These interventions have served to raise awareness and developed initiatives that have supported capacity-building particularly for institutions, policy-makers and youth.

UNESCO has continued to support the dissemination of a set of guidelines on ethical aspects of the Information society that constitute the output of a meeting organized in October 2013 by

UNESCO's intergovernmental Information for All Programme (IFAP), in concert with the Government of Latvia. In addition to support their uptake, the guidelines were translated into French, other language versions will be made available in 2015.

Also under IFAP, in late 2013 and early 2014 the safe and secure youth.Net project (SafeNet) was undertaken in the Former Yugoslav Republic of Macedonia in cooperation with a national NGO, the Interactive Education and Resource Network (IMOR). This project conducted youth tech camps in 12 locations. The training enabled a core group of 500 young men and women to develop ICT skills, raise their awareness of online ethical challenges related to issues such as privacy and security and gain an understanding of the social as well as technical responses to these issues. The project ensured the participation of a wide cross-section of youth including disadvantaged and vulnerable groups such as ethnic minorities. Peer to peer and team-based learning was also an important component of the training methodology, and the sense of a shared experience developed throughout the training supported cross-cultural understanding amongst participants. Furthermore, through continued peer to peer exchanges and co-learning experiences the on-line repository of training materials developed for this course has enabled this knowledge to be shared beyond the initial group of youths who were trained thereby creating a multiplier effect.

Resolution 52 of the 37th General Conference of UNESCO held in November 2013, mandated a comprehensive study on Internet-related issues to be produced through an inclusive multistakeholder consultation process. The study covering Internet issues within UNESCO's fields of competence, including access to information and knowledge, freedom of expression, privacy and the ethical dimensions of the information society will also provide options for future actions. A study concept note developed by UNESCO was presented and discussed in regional consultation meetings with Member States as well and intergovernmental organizations. A survey questionnaire was also developed and disseminated globally. The survey responses will inform the preparation of the comprehensive study. An international multistakeholder conference will be organized in Paris at UNESCO's Headquarters in March 2015 to discuss these findings. The final study, the partnerships mobilized as well as the options for action that will be identified, represent an important contribution to the work of the C3, C9 and C10 Action Lines.

The annual WSIS C10 Action Line Facilitation Meeting was organized in Geneva during the WSIS+10 High Level Forum under the theme "The Ethical Dimensions of the Information Society – Information Ecologies: Social Transformations, Ethics and Policy". The session explored the dynamic role of information ecosystems in connecting physical and virtual spaces, as well as their role in shaping the creation, meaning and direction of social processes and transformations. These evolutions are contributing to new modes of social existence and new relations of power and influence. Participants reflected on how the opportunities and challenges of these emerging trends could be better managed; how awareness of the ethical impacts of information and communication technologies could be heightened amongst stakeholders; as well as improving understanding of the capabilities and resources that policy-makers and other stakeholders may need to support collaborative and effective interventions.

The African Center for Excellence in Information Ethics (ACEIE), was established by the Government of South Africa in 2012 and is hosted on the campus of the University of Pretoria.

The ACEIE also hosts the African Network for Information Ethics (ANIE) which has members in 17 African countries. During 2014 regional information ethics training workshops targeting government policy makers and academics and practitioners have been organized in Eastern, Southern and Western Africa in the countries of Ghana, Lesotho, Namibia, Nigeria, Mozambique, South Africa, Swaziland and Uganda by the African Center for Excellence in Information Ethics (ACEIE), was established by the Government of South Africa in 2012 and is hosted on the campus of the University of Pretoria. The ACEIE also hosts the African Network for Information Ethics (ANIE) which has members in 17 African countries. The above mentioned events have also attracted participants from neighbouring countries.

As part of its efforts to support the development of information ethics resources for policymakers UNESCO begun efforts in 2014 to prepare a three-volume publication series and training course. This material is designed to address some of the gaps that were identified in earlier UNESCO studies which revealed that policy-makers were often not prepared to move in-sync with the many rapid development taking place in the Internet space. Pilot testing of the training material has been undertaken with university students in Paris, France and with policy-makers during the 8th International Conference on Theory and Practice of Electronic Governance (ICEGOV2014) organized in Guimaraes, Portugal by the United Nations University (UNU). These materials are expected to be available in 2015.

Challenges:

Since 2005 the emergence of new services and applications has seen the Internet move from a source of information to a platform for communication. Innovative 'Web 2.0' services such as social networks, have led to enormous growth in user-generated content, facilitated freedom of expression and association and broadened participation in public policy debates. These changes are widely believed to have contributed to political transformations in several countries.

ICTs and the Internet have also made it much more difficult for individuals and organizations to protect their privacy. Everything that people do online leaves a trail of information much more extensive and accessible than in their offline lives. Recent revelations concerning government surveillance of online activity have heightened debate about privacy, data protection, the detection of crime and national security.

Technological developments, such as big data analysis and the Internet of Things are also raising discussions and ethical concerns around how the adoption and experience of such technologies may alter human interactions and the societal fabric.

The ethical challenges of the Information Society will continue to grow and become more complex as ICTs continue to become more pervasive and have increased impact on human society. Technological innovation will present people with decision to do (or not to do) things, which were previously inconceivable. In addition, we will continue to see the evolution of concepts such as security and privacy.

Ways forward:

Increased confluence between the issues covered under this Action Line and those of Action Lines in particular C3 (access to information and knowledge), C5 (confidence and security in the

use of ICTs) and C9 (media) can be expected. This should in turn serve to stimulate greater interdisciplinary between Action Lines and more holistic approaches to addressing these complex, far-reaching issues. The blurring of boundaries between issues, the emergence of new opportunities as well as threats to rights, points to the need for greater public discourse around these challenges. UNESCO will continue to provide space for exploring and debating these changes, as well as conducting and disseminating research that serves to provide all stakeholders with greater insights into their implications.

Part 3: Overall challenges and ways forward

Major challenges remain in building people-centred, inclusive and development-oriented Knowledge Societies. UNESCO believes that the emergence of inclusive Knowledge Societies holds the key to sustainable human and economic development. The concept of inclusive Knowledge Societies continues to form the centrepiece of UNESCO's contribution to WSIS, emphasising the importance of integrating technology and human development. While there has been tremendous growth in networks and services, it remains the case that access to ICTs and their potential for empowerment remain unavailable or unaffordable to many people, particularly in developing countries. The gap between developed and developing countries in deployment of broadband infrastructure, of increasing importance for leveraging ICTs for development, is still growing.

Societies whose citizens have high levels of skills and experience and the capacity to absorb and use information to develop new products and services, are more likely to succeed in a world of increasing technological complexity. Inclusive Knowledge Societies are better equipped to achieve the social equity, economic prosperity and environmental sustainability, which are the three core objectives of sustainable development and which also underpin the fulfilment of human rights. Knowledge is also of central importance for the sciences, and in social and cultural life, enriching human experience and contributing to intercultural dialogue and international harmony.

These last years and in 2014, new challenges to privacy and other rights have emerged alongside new opportunities for free expression. While opportunities for freedom of expression have increased as a result of new media, privacy concerns are growing and online freedom of expression is under increasing pressure in some countries in contradiction to what the Universal Declaration of Human Rights affirms as a right "to seek, receive and impart information and ideas through any media and regardless of frontiers." In 2012, the United Nations human Rights Council agreed that 'the same rights that people have offline must also be protected online', especially freedom of expression. In 2014, at the ITU hosted second WSIS + 10 event, freedom of expression was challenged in an unexpected and unprecedented way even though all parties could finally agree on the inclusion of the Freedom of Expression reference. More still needs also to be done to enable and stimulate multilingual and culturally diverse content, to build media and information literacy, and to ensure inclusive participation.

Ethical challenges will continue to grow and become more complex as ICTs continue to become more pervasive and have increased impact on human society and as technological innovation presents people with opportunities to do things which were previously not possible or which threaten others' security or privacy. Concepts of security and privacy are evolving rapidly alongside the evolution of ICTs themselves, particularly as data gathering becomes more pervasive and extensive and as data management and analysis become more crucial to policy development, public service and business activity. Technological innovation and market evolution are changing the relationships between governments, businesses and citizens. The blurring of boundaries between issues, and the emergence of new opportunities and threats to rights, point to the need for more public discourse around these challenges and better understanding of their implications. UNESCO will contribute to this debate with a comprehensive study of the Internet-related issues within the mandate of the Organization,

including access to information and knowledge, freedom of expression, privacy and ethical dimension of the information society. In 2014, UNESCO launched a related questionnaire and commissioned research, which will inform a comprehensive study on Internet-related issues and the debates of the 38th General Conference in 2015.

The year 2015 will be a landmark year in international engagement with social and economic development. As well as the WSIS+10 review, the United Nations General Assembly will undertake a comprehensive review of the Millennium Development Goals, and will agree a new post-2015 development agenda, including the adoption of Sustainable Development Goals. This provides an opportunity to integrate ICTs and WSIS outcomes more effectively within the broader development agenda, and associate the emergence of inclusive Knowledge Societies with the Sustainable Development objectives of social equity, economic prosperity and environmental sustainability. UNESCO can be expected to enthusiastically contribute further to the growth of inclusive Knowledge Societies in the framework of the new mandate for development that will emerge from the General Assembly in 2015.