



United Nations
Educational, Scientific and
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World Summit Geneva 2003
Tunis 2005
on the Information Society
Turning targets into action

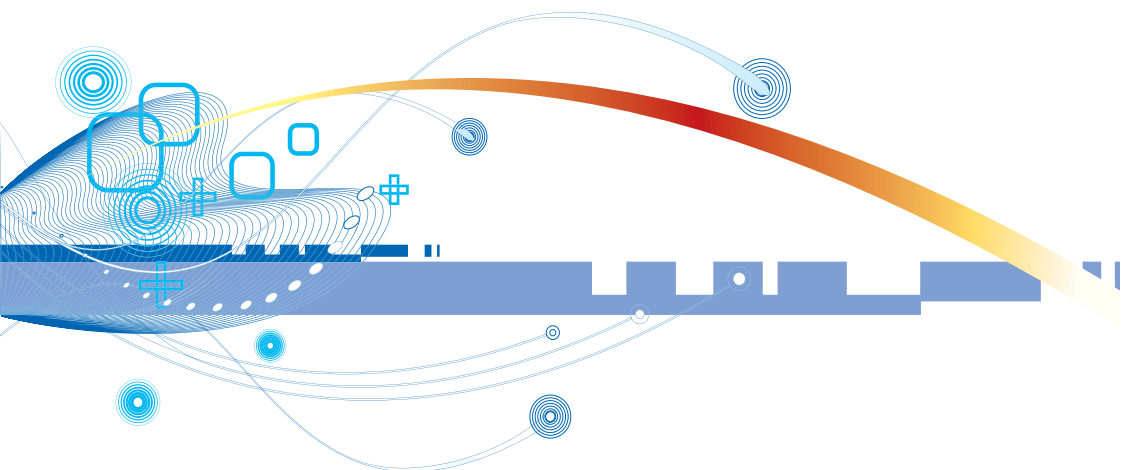
A complex background collage with a blue and purple color palette. It features a young boy holding a globe, an elderly woman on a mobile phone, a young girl with a mobile phone, and a Buddhist monk with a laptop. Abstract digital lines and icons are overlaid on the scene.

Towards Inclusive Knowledge Societies

A review of UNESCO's action
in implementing the WSIS outcomes

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By David Souter

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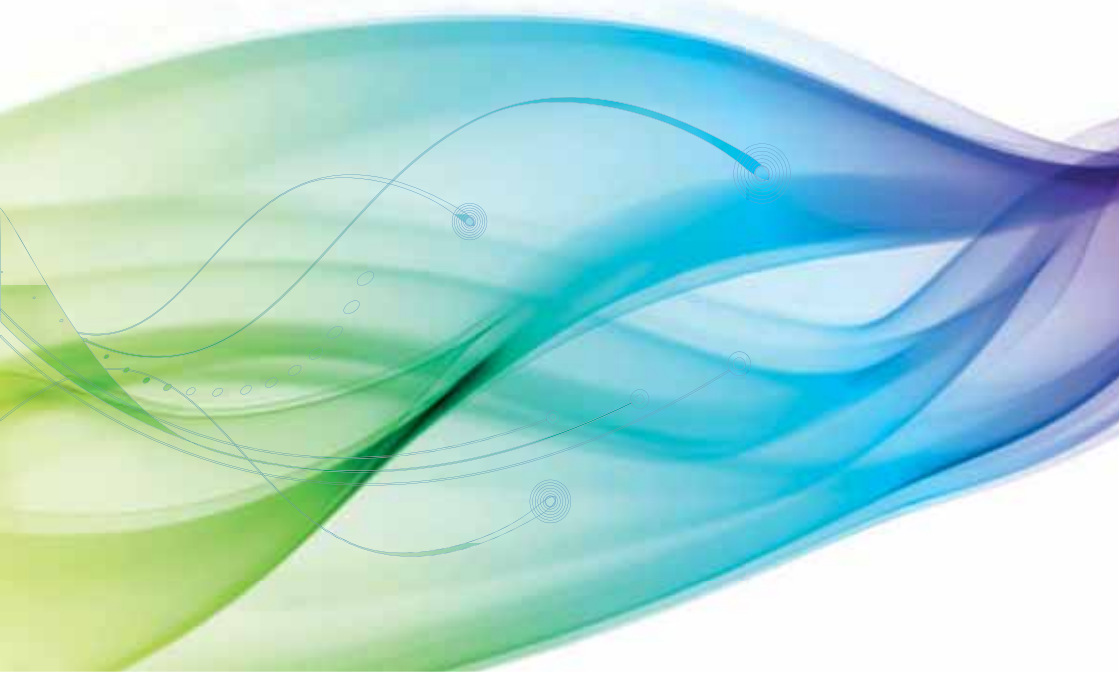
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Key to Abbreviations

CEB:	United Nations Chief Executives Board
CSTD:	Commission on Science and Technology in Development
CMCs:	Community Multimedia Centres
ECOSOC:	Economic and Social Council
EFA:	Education for All
GAID:	Global Alliance for ICT and Development
GeSCI:	Global e-Schools and Communities Initiative
ICTs:	Information and Communication Technologies
ICANN:	International Corporation for Assigned Names and Numbers
IGF:	Internet Governance Forum
IFAP:	Information for All Programme
IPDC:	International Programme for the Development of Communication
ITU:	International Telecommunication Union
LDCs:	Least Developed Countries
NGOs:	Non-Governmental Organizations
UNDAFs:	United Nations Development Assistance Frameworks
UNECA:	United Nations Economic Commission for Africa
UNDP:	United Nations Development Programme
UNGIS:	United Nations Group on the Information Society
WSIS:	World Summit on the Information Society

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Foreword

By Ms Irina Bokova, Director-General, UNESCO



UNESCO's implementation of WSIS outcomes: Assessing achievements and new ways ahead

Our world faces unprecedented challenges. While globalization has helped lift millions of people out of poverty, the economic, food and climate crises of recent years are threatening to prevent us from reaching the most important and ambitious goals ever set by the international community. The target date for achieving these goals – which include the Millennium Development, Education for All and World Summit on the Information Society (WSIS) goals – is 2015. With only five years to go, and in a context in which developing countries are particularly hard hit by the global crises, it is imperative that we act without delay.

Halfway between the 2005 meeting of the World Summit held in Tunis, Tunisia and the 2015 target date for achieving the WSIS goals, we can reflect on the achievements

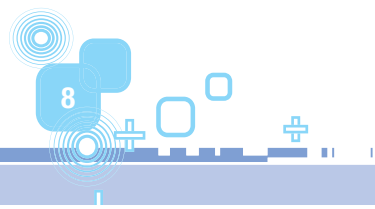
made to date and determine how we can use the knowledge gained to enhance our impact.

The follow-up and implementation of the WSIS, our cooperation through the United Nations Group on the Information Society (UNGIS) and our work in the area of internet governance are complex tasks. A critical challenge is to promote an enabling environment for harnessing the potential of information and communication technologies (ICTs) – from radio to mobile media and the Internet – for the benefit of each and every individual, including the marginalized and most vulnerable.

ICTs can enhance learning opportunities, facilitate the exchange of scientific information and increase access to content that is linguistically and culturally diverse. They also help to promote democracy, dialogue and civic participation, and facilitate new forms of social networking. In so doing, they make a central contribution to the attainment of the internationally-agreed development goals set out above, and are indeed at the core of the development of knowledge societies.

Through its continued support to countries towards the achievement of the WSIS goals, UNESCO means to ensure that our vision of inclusive and pluralistic knowledge societies based on quality education for all, freedom of expression, universal access to information and knowledge, and respect for cultural and linguistic diversity, becomes a reality across the world.

Irina Bokova
Director-General of UNESCO





1. INTRODUCTION

1.1 The World Summit on the Information Society (WSIS)

1.1.1 The last thirty years have seen a transformation in the information and communication resources which are available to people throughout the world.

- Radio and television now bring information and entertainment – from local and global sources – into the homes of citizens in almost all communities.
- Mobile phones have made personal communications readily accessible, for the first time, to women and men, poor and prosperous, rural as well as urban dwellers in developing as well as in industrial countries.
- The Internet offers new opportunities for individuals to gain knowledge, entertainment and empowerment, for businesses to reach new

markets, for governments to deliver services more effectively to their populations, and for civil society organisations to engage in new ways with those living in poverty and deprivation.

1.1.2 Since the 1990s, the term “Information Society” has been widely used to describe the new social, economic and cultural relationships brought about by this changing information and communication landscape – a society in which information and knowledge will play critical roles in enabling the development of countries, communities and individuals.

1.1.3 International thinking about the Information Society came to the fore during the World Summit on the Information Society (WSIS), which was held in two phases, culminating in Geneva in 2003 and Tunis in 2005. WSIS provided a forum in which multiple stakeholders including international organizations, governments, the private sector and civil society could discuss the opportunities of the new information and communication environment, and also address challenges such as the inequality in access to information and communication that is called the ‘digital divide’. Priorities discussed at WSIS included the need for investment in infrastructure, the role of information and communication technologies (ICTs) in development, the relationship between these ICTs, human rights and culture, and the new challenges posed by ICTs and the Internet for international governance. It established targets for ICT deployment to run alongside other internationally agreed development goals, and a frame of reference for continued work by international agencies and governments.¹



1 Progress towards these targets areas is assessed in ITU's: *World Telecommunication/ICT Development Report 2010. - Monitoring the WSIS Targets: A Midterm Review*, with contributions from UNESCO's Institute for Statistics.

1.2 UNESCO and Knowledge Societies

1.2.1 Since its inception, UNESCO has been at the heart of international thinking about the impact of the changing information and communication landscape. As the United Nations' specialized agency for education, science, culture and communication, it focused attention in the 1980s and 1990s on the potential for new technology to advance development and enhance the rights of people around the world. In 1990, it established a Communication and Information Sector, and subsequently adopted the aim of *building inclusive knowledge societies through information and communication* as one of the Organization's five overarching objectives. By Knowledge Societies, UNESCO means societies in which people have the capabilities not just to acquire information but also to transform it into knowledge and understanding, which empowers them to enhance their livelihoods and contribute to the social and economic development of their societies.

1.2.2 New technologies have created new opportunities for the creation, preservation, dissemination and use of information, but it is human activity that enables information to be transformed into knowledge and knowledge to add value to human experience and development. UNESCO's focus is on this human dimension of information and communication. It is rooted in the framework of human rights established by the Universal Declaration of 1948 and its implementing Covenants, and in the need for all to have the opportunity to access information and to express ideas and interests in an open and inclusive environment that fosters and benefits from diversity of opinion.



Figure 1. Element of UNESCO's Knowledge Societies concept.

1.2.3 UNESCO works with governments and other major stakeholders in its 193 Member States and seven Associate Members to build Knowledge Societies that are inclusive, equitable, open and participatory along these lines. Such societies rest on four key principles that are central to all UNESCO's work in information and communication, including its work on the WSIS process. These are:

- freedom of expression,
- quality education for all,
- universal access to information and knowledge, and
- respect for cultural and linguistic diversity.

1.2.4 UNESCO has always coordinated international action to maximise the benefits that can be derived from information, media and communication. It therefore played a leading part, alongside the International Telecommunication Union (ITU), in organising the World Summit on the Information Society. During WSIS, UNESCO focused attention on the need to reach beyond an Information Society towards the Knowledge Societies described above. It organised thematic discussions on issues including freedom of expression, cultural diversity, multilingualism, capacity building and the importance of knowledge in shaping future social, economic and cultural life. UNESCO's approach and values were strongly reflected in the WSIS outcome documents – the *Geneva Declaration of Principles and Plan of Action* (2003) and the *Tunis Commitment and Tunis Agenda* (2005). The WSIS documents, in turn, helped to shape UNESCO's *Mid-Term Strategy (C/4)* for the years 2008-2013.

1.2.5 In 2005, UNESCO published an influential World Report entitled *Towards Knowledge Societies*, which described in detail the opportunities resulting from the transformation of information and communication, the challenges arising from these in terms of equity and inclusiveness, and UNESCO's approach to building societies in which knowledge is the primary resource for social engagement and economic production. Building inclusive Knowledge Societies therefore remains a central purpose for UNESCO's ongoing work.

1.3 WSIS follow-up and implementation activities

- 1.3.1** The World Summit on the Information Society did much to bring the potential of information technology to the forefront of thinking and decision-making. Its discussions were wide-ranging, however, and it was not possible to reach agreement in every area under discussion. Its outcome documents represent global consensus on ICTs' potential at the time the Summit met. They set targets and goals for policymakers in government, business, civil society and other stakeholder communities, based on the circumstances of their day. They recognised, however, that technologies, markets and societies were changing rapidly and would continue to do so, and that goals and targets, opportunities and challenges would see rapid and unpredictable changes, too, as a result.
- 1.3.2** The WSIS outcome documents, therefore, are not the final word on the development of inclusive Knowledge Societies, but staging posts along the route to achievement. The principles agreed at WSIS provide a basis for international action to make their achievement a reality. The context for that action – the types of technology available, the ways in which they are being used within societies, the opportunities for new forms of participatory governance and service delivery, and the problems that arise from the abusive use of ICTs – are in constant flux. Rapid technological and market developments, accompanied by slow social and legal changes, pose real challenges for WSIS follow-up and implementation activity.
- 1.3.3** Implementation of the WSIS recommendations requires action at many levels – by international organizations, governments, businesses, civil society and ICT professionals. The WSIS outcome documents call for 'multi-stakeholder' involvement by these different groups and this has been a central feature of work to follow-up the Summit.
- 1.3.4** Within the UN family, the Secretary-General allocated responsibility for implementing WSIS recommendations to a number of different agencies:

- The Economic and Social Council (ECOSOC) and its Commission on Science and Technology in Development (CSTD) were given overall responsibility for overseeing WSIS follow-up².
- A UN Group on the Information Society (UNGIS) was established to coordinate the work of UN agencies and other international organizations involved.
- A series of Action Lines was set up to foster cooperation between stakeholders in 18 different areas of activity.³
- A Partnership on Measuring ICT for Development was formed to bring together international organizations concerned with the statistics needed by policymakers in this field.
- A new, multi-stakeholder Internet Governance Forum was initiated to provide an annual forum for discussion about the governance of the Internet and its relationship with other public policy issues.

1.3.5

The United Nations Secretary-General invited UNESCO, along with two other UN bodies, ITU and UNDP, to take the lead in implementing WSIS outcomes. UNESCO has accordingly played a central role in UNGIS, which it chairs in rotation with these other UN agencies.⁴ UNESCO shares responsibility with ITU for organising annual meetings of Action Lines in what is now called the WSIS Forum, and is itself responsible for facilitating six of these Action Lines. The UNESCO Institute of Statistics has led the work of the Partnership on Measuring ICTs for Development in the field of ICTs in education. UNESCO has also played a significant part in the work of the Internet Governance Forum (IGF).

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- 2 Paragraph 105 of Tunis Agenda and ECOSOC Resolution, 2006/46 “Follow-up to the World Summit on the Information Society and review of the Commission on Science and Technology for Development” adapted on 28 July 2006.
 - 3 These 18 areas of activities include 11 Action Lines, one of which (C7) is divided into eight sub-chapter of Action Line C7 which concerns ICT applications that focus on benefits of ICT in diverse aspects of life and policy (e.g. e-learning, e-science).
 - 4 In 2009, UNCTAD was added as rotating UNGIS vice-chair.

1.4 The purpose of this report

1.4.1 This report reviews the UNESCO's work in these implementation areas during the five years since the Tunis phase of the World Summit in 2005. It summarises some highlights of what has been achieved to date, and reflects upon the challenges which have arisen in the implementation of WSIS outcomes. The final section of the report looks forward over the next five years, to suggest ways in which implementation of WSIS results might be more effectively integrated in the broader work that UNESCO and other agencies are doing to achieve the benefits that can be derived from an Information Society and the Knowledge Societies to whose development UNESCO is committed.

1.4.2 The report looks in turn at UNESCO's three main roles in WSIS implementation:

- as a coordinator/ lead facilitator, with ITU, UNDP and UNCTAD, of the overall implementation process, including UNGIS and the WSIS Forum;
- as a facilitator of six Action Lines to facilitate the implementation of the WSIS outcomes in specific areas of work;
- and as an implementer of programmes and initiatives that seek to build inclusive Knowledge Societies and thereby contribute to the achievement of WSIS goals.

2. COORDINATION⁵

2.1 Introduction

2.1.1 The World Summit was an important stage in international action to promote and take advantage of ICTs for advancing the global development agenda, and in UNESCO's work to build inclusive Knowledge Societies. The WSIS gathered together evidence and experience from the years before 2003 and identified priorities for international action that had greatest potential, at that time, to maximise the value of ICTs. It provided an overarching vision for an Information Society, though not an entirely comprehensive programme for the future. It was not possible, at that time, for example, to resolve every issue before it, nor to anticipate the dramatic changes in technology, markets and social interaction that have occurred since 2005.

2.1.2 UNESCO and other agencies are implementing many programmes and initiatives that seek to make efficient use of ICTs as they evolve, address the challenges they pose, and build Knowledge Societies for the future. There are a number of different mechanisms through which that activity can be coordinated by governments and intergovernmental actors, within and beyond the UN system. The implementation of WSIS outcomes is one important mechanism of this kind.

2.1.3 The WSIS *Tunis Agenda* document emphasised the experience of three UN agencies in the Information Society field – UNESCO, ITU and UNDP.⁶ After the Tunis Summit, the UN Secretary-General called on these three agencies to coordinate implementation of the *Plan of Action* which had been agreed during the first Summit in Geneva in 2003,



5 "Leading facilitating role" in the wording of the Tunis Agenda, paragraph 109.

6 Paragraph 109 of Tunis Agenda.

by organising Action Lines to facilitate implementation activity in eighteen different areas. In addition, the Secretary-General asked them to share responsibility for implementation of the WSIS outcomes as a whole by co-chairing a new UN Group on the Information Society (UNGIS). At the same time, however, both the *Tunis Agenda*⁷ and the Secretary-General made clear that the agencies concerned should work within their existing mandates and that implementation activity should be undertaken within existing financial resources.

2.2 The UN Group on the Information Society (UNGIS)

2.2.1 The UN Group on the Information Society was formally established by the United Nations' Chief Executives' Board (CEB), which brings together the heads of all UN agencies, in April 2006. The Group's purpose is to facilitate implementation of WSIS outcomes by fostering consistency between the work of different UN bodies and organizations, facilitating synergies between them, and ensuring that all of the WSIS objectives are addressed within the UN system.⁸ It also aims to mainstream ICT issues in non-ICT development fields that are addressed by UN agencies. It is intended, therefore, to complement and add value to the work which individual UN agencies are undertaking, but not to direct or oversee that work. Issues concerning science and technology transfer were added to UNGIS' mandate in 2009.⁹



2.2.2 Twenty-nine UN agencies and other intergovernmental organizations¹⁰ now take part in UNGIS, which has been chaired in annual rotation by UNESCO and ITU. UNDP and UNCTAD are also vice-chairs, and UNECA has been elected as a rotating vice-chair for 2010-11.¹¹ Although non-

7 Paragraph 102 b) of Tunis Agenda.

8 Paragraph 103 of Tunis Agenda.

9 This decision was taken at CEB's High-Level Committee on Programmes (HLCP) in 2009.

10 The list of UNGIS members is available at <http://www.ungis.org/Default.aspx?tabid=164>.

11 See www.ungis.org for more information.

governmental stakeholders are not involved directly in UNGIS' work, it can consult with them about it and about the overall direction of the WSIS implementation agenda.

2.2.3

UNGIS has always recognised that it cannot act across the whole range of WSIS issues. Instead, it agreed from the start to focus on some of the more important cross-cutting themes that emerged from WSIS. Achieving this has been challenging, particularly as UNGIS has no significant resources and relies on annual coordination meetings organised by each of its lead agencies in turn. It has, however, developed a work programme with flagship initiatives and initiated several contributions to international debate and action on WSIS-related issues.



2.2.4

In October 2009, UNGIS organised an open consultation on *Financial mechanisms: meeting the challenges of ICT for development*. This high-level multi-stakeholder meeting was held in Geneva alongside the ITU's Telecom World conference and exhibition.¹² It reviewed experience of investment in infrastructure and services since the report of a Task Force on Financing Mechanisms for ICTs, which was set up by the UN Secretary-General after the Geneva Summit, was published in 2004.

2.2.5

Currently, UNGIS is facilitating implementation of joint initiatives by UN agencies in three areas. One of these, which is concerned with child online protection, is coordinated by ITU, and is also discussed within the Internet Governance Forum. UNESCO plays a leading role, with UNCTAD, in the other two initiatives in this work programme, which coincide with longstanding UNESCO priorities. These are:

- The promotion of open access to scientific knowledge – in particular, the principle that research which has been publicly financed should be accessible free of charge, facilitating the research capabilities of developing countries.

¹² ITU TELECOM WORLD is a quadrennial event for the global telecommunication and information communication technology sector. In 2009 it took place from 5 to 9 October in Geneva.

- The implementation of Science, Technology and Innovation Policy reviews requested by governments to help them ensure that their policies in these areas support national development priorities.

2.3 Moving forward with UNGIS

The establishment of a new coordinating mechanism within the UN system is always challenging. Many different UN bodies and organizations have responsibilities that cut across the WSIS outcomes. All are in different ways affected by the potential of ICTs to contribute to their work. It has therefore taken time for UNGIS to establish its role alongside other UN coordinating bodies and to identify a workplan for the future. The scope of work which UNGIS can undertake is also limited by its resource constraints.

2.3.1 UNGIS can play a valuable role in coordinating diverse UN agencies during the next five years that lead up to the scheduled review of WSIS during 2015, the year in which the majority of Millennium Development Goal targets will also be assessed. Achieving this with limited resources will require closer cooperation among the coordinating agencies, and a more strategic focus on desired global outcomes and on activities that add significant value to the WSIS implementation process, without duplicating work that is being done elsewhere. Dialogue between UN agencies, governments and other stakeholders will add value to this process. It will also be important to liaise with other bodies coordinating international post-WSIS work within the UN system, such as the Internet Governance Forum and the Global Alliance for ICT and Development (GAID), and to enhance input from UNGIS to the Chief Executives Board and other UN coordinating mechanisms.



2.3.2 UNESCO will seek to enhance the profile of ICTs for education, science and culture within the UN system as the 2015 review approaches, through UNGIS, through continued partnership with the ITU and UNCTAD, and on its own initiative. Two further issues which should be priorities for

UNGIS in the next five years stem from changes in the UN system as a whole.

2.3.3 The United Nations has sought to achieve greater coherence among UN agencies through the “Delivering as One” pilot initiative, including a new focus on system-wide coherence at a country level. This new emphasis on coherence gives added resonance to UNGIS within the UN system as a whole. Engaging with it could also help UNGIS and other implementation arrangements to assess the impact of WSIS outcomes within a single country framework.

2.3.4. United Nations Development Assistance Frameworks (UNDAFs) provide the strategic framework for work by UN agencies in individual countries, and are central to implementation of the UN reform. At present, there is no requirement for UNDAFs to address information, communication or the WSIS outcomes, and these aspects of development receive little attention in them. UNESCO and UNGIS should work with UN agencies to improve understanding and awareness of the contribution that information and communication make to development, both as tools to achieve short-term developmental gains and as agents of long-term social change. Progress towards Knowledge Societies should be part of the development agenda set out at national level through the UNDAF process.



2.4 The Partnership on Measuring ICT for Development

2.4.1 One further outcome of international coordination on the implementation of WSIS outcomes is the Partnership on Measuring ICT for Development.

2.4.2 Accurate measurement of ICT adoption, use and impact is crucially important if policymakers are to make well-informed decisions. During and since WSIS there has been much concern about the lack of reliable and comparable data

in developing countries concerning ICTs and the impact which they are having on societies. The statistics needed to measure this have not previously been collected in many countries, and rapid changes in technology, markets and societies make it difficult to keep track of changing information needs even where they are available. At the same time, these rapid changes make it especially important for policymakers, civil society leaders and business planners to know what is happening in their areas of responsibility, so that they can put the right measures in place to take advantage of the opportunities provided by ICTs.

2.4.3 The Partnership on Measuring ICT for Development was set up during the final stages of the WSIS process and now comprises eleven international organizations – including the World Bank, the World Trade Organization and EUROSTAT as well as UNESCO and other UN agencies. In 2007, it published a set of core indicators - concerned with infrastructure and access, household access and use of ICTs, the role of ICTs in business and in trade, and with the ICT sector itself. These core indicators were chosen because they would be relatively easy to collect and would provide a basis for comparisons between countries and over time.

2.4.4 UNESCO's specific contribution to the work of the Partnership has been concerned with educational statistics. UNESCO's Institute of Statistics has





led the development of an additional series of ICT/education indicators.¹³ Core educational indicators, derived largely from information that can be supplied by schools and other institutions, were added to the existing sets of core indicators in 2009.

The Institute has also produced a more extensive set of indicators which can be used to give a fuller picture where they are available and which it is hoped can be integrated into the core indicator sets as data collection improves. It published a guidebook to use of the indicators in 2009.

2.4.5 The Partnership continues to develop its work. It is currently revising the core list of indicators and is considering indicators for e-government. It also provides guidance to national statistical offices on the collection of relevant data.

2.4.6 Most current indicators, however, are concerned with measuring the access and availability of ICTs, rather than their use and impact. Impact measures are essential if policymakers are to make most effective use of their resources. They are also difficult to establish for cost reasons, and because many of the necessary data sets have not previously been collected. The Partnership is now focused on developing more impact measures. UNESCO's Institute of Statistics is also working to build the capacity of national statistical offices in this area through a series of annual regional workshops.

2.5 WSIS Action Lines and the WSIS Forum

2.5.1 The Geneva Plan of Action, which was agreed at the first phase of the Summit in 2003, identified eighteen areas of activity in which governments, civil society entities, businesses and international organizations could

¹³ The Annex to this document shows statistical highlights from this work, which are extensively interpreted in the ITU publication: *Monitoring the WSIS Targets: A Midterm Review*.

work together to achieve the potential of ICTs for development. The Action Lines are listed in the box below.

WSIS Action Lines

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C5. Building confidence and security in the use of ICTs
- C6. Enabling environment
- C7. ICT Applications:
 - E-government
 - E-business
 - E-learning
 - E-health
 - E-employment
 - E-environment
 - E-agriculture
 - E-science
- C8. Cultural diversity and identity, linguistic diversity and local content
- C9. Media
- C10. Ethical dimensions of the Information Society
- C11. International and regional cooperation

2.5.2 Responsibility for facilitating individual Action Lines was shared between a number of UN agencies. UNESCO took responsibility for six of them, and its work on these is described in the next section of this overview. Shared responsibility for overall coordination of the Action Lines was allocated by the UN Secretary-General to ITU, UNESCO and UNDP – with UNCTAD also involved since 2009.

2.5.3 These Action Lines – and the WSIS Forum which now gives them an overarching structure – were intended to provide a framework to coordinate the work of different stakeholder groups in reaching WSIS goals. While they have been useful, implementing them has proved challenging and renewed efforts are being made to define their role and

ensure that they contribute positively to the development of inclusive Knowledge Societies.

- 2.5.4** Terms of reference for implementation of each Action Line were agreed through a consultation meeting organized by UNESCO, UNDP and ITU in 2006. These set out a number of roles which multi-stakeholder teams could perform: sharing information and experiences among stakeholders, identifying and disseminating best practice, and the facilitation of joint working across stakeholder boundaries. It was hoped that each multi-stakeholder team would establish subgroups that could focus on more precise issues of importance to different groups of actors.
- 2.5.5** Since 2007, annual meetings of the Action Lines have been held in Geneva, clustered around the date of World Information Society Day, 17 May, which also coincides with meetings of UNGIS and CSTD and with consultation meetings for the Internet Governance Forum.
- 2.5.6** While the meetings held in 2007 and 2008 were useful, they also proved disappointing to many participants and to the agencies responsible for their organization. With limited financial resources, it has been difficult to maintain continuity between meetings. A good deal of discussion time has therefore had to be spent on managing the Action Lines. The structure of the meetings – held over a two or three week period in Geneva – has made it difficult for many to attend, especially those from developing countries, from the private sector and from civil society, and these other stakeholders have been reluctant to join with UN agencies as co-facilitators of Action Lines. As a result, participation has not been as inclusive as it should have been, and attendance at many Action Line meetings has declined year on year from 2006 to 2008. In these circumstances, it has been difficult to move discussion forward from the sharing of experience to cooperative working for the future. After the 2008 meetings, it was clear to the coordinating agencies and participants that a fresh approach was needed to invigorate the Action Lines.

2.5.7

In 2009, following consultation with participants, UNESCO and the other leading facilitators changed the format of these annual meetings in order to encourage more participation and activity and to emphasise the cross-cutting nature of ICTs and Information Society activities. The new format, called the WSIS Forum, places Action Line meetings within a context of high-level panels and thematic workshops, which address the 'big picture' issues of the Information Society and provide much more scope for dialogue between those working in different aspects of its implementation. All of the meetings are now held within a single week, which makes participation less expensive as well as more productive.



2.5.8

Facilitators have also offered a more open environment for participation, including surveys, virtual consultation and the online wsis-community platform (see below). In addition, many Action Line meetings now focus more narrowly within their remit, concentrating attention on specific issues in which joint action can be fostered rather than simply comparing experience across the whole remit of the Action Line. Action Line C7 on e-learning, for example, focused in 2009 on mobile learning applications.

2.5.9

The first WSIS Forum, in 2009, was regarded as a significant improvement by those that participated in it. The second Forum, in 2010, will be an opportunity for participants to review progress on implementing WSIS outcomes midway between the Tunis phase of the Summit and the 2015 date for achievement of the WSIS targets.



2.6 **An online community: www.wsis-community.org**

2.6.1 It has been difficult to coordinate multi-stakeholder teams for each Action Line when participants can meet face-to-face only once a year. Following a consultation process with WSIS stakeholders, UNESCO has designed and implemented an online collaborative platform which enables stakeholders to share experience and continue discussions about implementation in the period between the annual meetings. This online community was launched at the 2009 WSIS Forum, and offers a wide range of online facilities which are gradually being operationalized.

2.6.2 Over 550 participants are now registered online. This is a useful starting point, but the online facility has not yet become a significant forum for debate about WSIS issues. More effort will be required to stimulate online participation and debate if it is to become so. However, as with other online facilities, the ultimate test of this will be whether those who are concerned with WSIS implementation find it a useful and worthwhile resource that adds value to their work. The online facility may also prove to be most valuable as a workspace for short-term discussion of priority issues within individual Action Lines.

2.6.3 The performance and contribution of the online community will need to be reviewed. A review should consider how the facility might be used

to draw together evidence and experience for the assessment of WSIS outcomes that will take place in 2015.

2.7 Meeting the challenges of the WSIS Forum

2.7.1 The coordination of multi-stakeholder implementation through Action Lines was intended by WSIS to avoid duplication of activities and to provide an opportunity for networking and information exchange between stakeholders, for knowledge creation, and the sharing of good practice, and for examining opportunities for collaboration and establishing partnerships among interested parties. It was hoped that it would also provide a way to maintain the momentum that had been generated during the Summit in different areas of Information Society development, and to encourage stakeholders from government, business and civil society to work together to address the issues concerned.

2.7.2 The annual consultation meetings, which were originally called a Cluster of WSIS-related events, have proved insufficient to maintain momentum, while the cost of participation has discouraged many important stakeholders from taking part. Without independent financial resources, it has been difficult for the facilitators to play a proactive role in initiating debate and interchange between stakeholder groups. Important stakeholder groups, particularly from developing regions and from the private sector, have been under-represented. While they have been useful fora for the exchange of information, ideas and experience, the Action Lines have not, therefore, played their expected role in implementation of the WSIS outcomes.

2.7.3 If they are to be worthwhile, consultation meetings must add value that goes beyond what participating organizations can achieve alone. That value can be derived in several ways: from the exchange of experience and lessons learned from existing practices, from the establishment of synergies and joint activities between different participants, and/or from the opportunity to develop thinking about aspects of the Knowledge Societies and of changes in the information and communication

environment. Future meetings must be more than routine exchanges of information if they are to add this value.

2.7.4

The establishment of the WSIS Forum in 2009 provides a timely opportunity to revitalise the Action Lines. The Forum concentrates Action Line activity within a single week, making participation more efficient and affordable. It also locates Action Line discussions within a programme of high-level and thematic discussions, enabling more substantive and cross-cutting policy debate. In addition, some Action Lines have chosen to focus attention on specific aspects of their remit rather than seeking to cover every aspect at each meeting. As a result of these changes, the first Forum was a marked improvement on the clusters of Action Line meetings held in 2006-2008.



2.7.5

The second Forum will enable the organisers – UNESCO, ITU, UNCTAD and UNDP – to assess progress and plan the course of Action Line facilitation over the years leading up to the review of WSIS scheduled for 2015. To achieve this, it will be important to evaluate the 2010 Forum, in consultation with participating organizations and with other stakeholders who do not currently attend.





3. FACILITATION

3.1 Introduction

3.1.1 Alongside its general coordinating role in the post-WSIS process, UNESCO has been the lead facilitator of six Action Lines. These are the Action Lines concerning:

- Access to information and knowledge (C3)
- e-Science (C7)
- e-Learning (C7)
- Cultural diversity and identity, linguistic diversity and local content (C8)
- Media (C9); and
- Ethical dimensions of the Information Society (C10)

3.1.2 The following paragraphs describe the work which has been done within these Action Lines during the past five years. Examples of UNESCO's

programme work in each of the Action Line areas are described in the next, fourth section of the report, on UNESCO's role as an implementer of the WSIS outcomes.

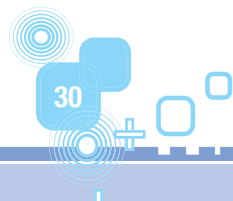
3.2 **Action Line C3 – Access to information and knowledge**

3.2.1 Action Line C3 is concerned with access to information and knowledge. This cuts across many dimensions of the WSIS outcomes, and many aspects of UNESCO's mandate to promote inclusive Knowledge Societies – from enabling equitable access to infrastructure to freedom of information, from supporting national strategies for ICTs within development to opening access to scientific information. The Action Line has therefore attracted interest from a broad range of organizations and also linked up with Action Line C7 on e-science. It has provided a framework for the sharing of experience and discussion of issues including information literacy, the role of libraries and educational institutions.

3.2.2 Examples of UNESCO's own activity in this area, which are discussed in the next section, are its work with Community Multimedia Centres and its Memory of the World programme.

3.3 **Action Line C7 – e-Learning**

3.3.1 A number of different action lines, with different facilitators, were identified by WSIS to address the application of ICTs in different areas of development. UNESCO took responsibility for two of these, those concerned with e-learning and e-science.



3.3.2

Education and learning are central to UNESCO's mandate and to most of the gains that are anticipated from the widespread use of ICTs. One of the basic requirements for education in the 21st century is to prepare people for participation in a knowledge-based economy, including its social and cultural perspectives. People need the capabilities to make use of ICTs, to appropriate information and to apply knowledge at the local level in order to fulfil technology's potential. But learning is not just something that occurs in schools and other educational institutions: it is a lifelong process, including training, capacity development and individual opportunities to develop new skills alongside new opportunities. Formal and informal education can both benefit from the use of ICTs, adding value to traditional teaching methods and enabling new modes such as distance learning and open educational resources. Action to remedy historic gender inequalities in education also forms an important part of the Millennium Development Goals and the goals of the UNESCO-led Education for All initiative.



3.3.3

This Action Line has provided a forum in which agencies concerned with ICTs and education can exchange information about experience and programmes, and identify ways in which the contribution of ICTs to education can be assessed. It has contributed to the UNESCO Institute of Statistics' work on core indicators for ICTs and education. In 2008 and 2009, it focused in particular on the potential for learning using low-cost and portable devices. In 2008, the Action Line held a two-day workshop on low-cost educational devices which brought together experts in the field and enabled discussion in much greater depth than can be achieved in briefer meetings.

3.3.4

Examples of UNESCO work in this area include the development of policies for ICTs in education and of training models and competency standards for ICT teaching, and the promotion of Open Educational Resources.

3.4 Action Line C7 – e-Science

3.4.1 Science, like education, is central to UNESCO's mandate. In addressing this role, UNESCO has paid particular attention to the free flow of scientific information, with the aim of enabling researchers and practitioners from all countries to participate in research and innovation and freely access publicly financed research.

3.4.2 Action Line C7 has focused on access to scientific information and the diffusion of scientific content and knowledge. This addresses an important challenge for researchers in developing countries that results from the high access costs of scientific journals and poor Internet connections in their countries.

3.4.3 As well as coordinating Action Line C7, UNESCO is coordinator of the UN Science and Technology Cluster. This groups thirteen UN agencies in support of the African Union Consolidated Plan of Action for Science and Technology, which was endorsed in 2008. Other examples of relevant UNESCO work include the publication of best-practices for open access to scientific information, the development of an Encyclopaedia of Life Support Systems, and the introduction of an African Virtual Campus programme to train science and technology teachers in approaches to e-learning. The latter has been endorsed as a flagship project by the Africa Group of Ambassadors to UNESCO.



3.5 Action Line C8 – Cultural and linguistic diversity, and local content

- 3.5.1** Action Line C8 brings together a number of issues which seek to ensure that access to technology, information and knowledge is inclusive of everyone within society – in particular of those who are not literate (or not literate in international languages) and those with disabilities. UNESCO emphasises the value of cultural and linguistic diversity in all its work. It is also concerned to ensure that new media platforms make content available which is relevant to the lives of all communities and individuals, including the poor and marginalised. Content of local relevance, and content which is locally produced, are important in this context.
- 3.5.2** Action Line C8 has brought together stakeholders that are concerned with these aspects of access to knowledge, and has focused in particular on heritage, local content, linguistic diversity and disability.
- 3.5.3** Examples of relevant UNESCO work, which are discussed in the next section, include the establishment of the World Digital Library, and partnership with the International Corporation for Assigned Names and Numbers (ICANN) to promote multilingualism in cyberspace, including internationalised domain names.



3.6 Action Line C9 – Media



3.6.1 Action Line C9 is concerned with both traditional and new media. Participants in this Action Line have been active in discussing substantive policy issues arising from the way in which continuing technological and market changes affect the media environment. Subgroups have focused on freedom of expression, press freedom and legislation to guarantee the independence and plurality of the media; media development and capacity building for media professionals; media and information literacy; fostering access to information through community media; promoting gender sensitive reporting and gender equality in the media professions. Action Line participants have explored how media production, distribution and consumption will be affected by social and market changes, including the impending switchover from analogue to digital broadcasting and the rise of online content generation by end-users.

3.6.2 An important example of UNESCO work in this area since the World Summit has been the establishment of a set of Media Development Indicators designed to improve the enabling environment for freedom of expression wherever they are applied.

3.7 Action Line C10 – The ethical dimension of the Information Society

3.7.1 UNESCO is committed to the full implementation of the fundamental freedoms set out in the Universal Declaration of Human Rights and international rights Covenants. Since 1997, it has organized a series of events enabling specialists and decision-makers to address the ethical dimensions of the Information Society.

3.7.2 Discussions in Action Line C10 have been primarily concerned with means of promoting universal values and principles for the Information

Society and of preventing abusive uses of ICTs. UNESCO's own efforts in this area have included a series of regional Info-Ethics Conferences in Latin America, Africa, Europe and the Asia-Pacific region, aimed at improving awareness of the challenges of information ethics. These events have helped to establish criteria for assessing ways of enhancing discussion and decision-making at national and regional levels, and for measuring developments in the field of information ethics. UNESCO has also organized training workshops for government officials in Information Ethics and e-Government and believes that it is mainly through such activities and initiatives that the Action Line C10 objectives can be reached.

3.8 Meeting the challenges of Action Line facilitation

3.8.1 As noted in the previous section of this overview, the Action Line process has been challenging for UNESCO and its partners. In many Action Lines, participation has been disappointing. The number of participants in most Action Lines fell year-on-year from 2006 to 2008, with the number of those attending from developing countries and from the private sector being particularly disappointing. In spite of UNESCO's efforts, it has been hard to achieve continuity between annual meetings and to develop dynamic partnerships amongst the diverse stakeholders involved.

3.8.2 The previous section also welcomed the innovations initiated at the WSIS Forum in 2009, which located the Action Line meetings in a more holistic context and emphasised the cross-cutting potential of ICTs as well as their relevance to specific Action Lines. This development recognises that the information and communication environment has evolved since the Geneva Plan of Action was agreed in 2003, and places Action Line activities within this changing context. UNESCO believes that this approach will benefit the Action Lines that it facilitates and looks forward to reviewing experiences after the second WSIS Forum has taken place.



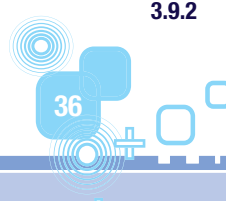
3.8.3 As discussed in the final section of this overview, the midpoint which we have now reached between the Tunis phase of the Summit and the date set for the review of WSIS outcomes is a good time to shift the emphasis of WSIS implementation – looking forward to what can be achieved by 2015 rather than back at what has been achieved since 2005. UNESCO intends to build this new emphasis into the work it undertakes to facilitate the six Action Lines for which it is responsible.

3.8.4 In 2008, Action Line C7 on e-learning replaced the usual meeting format with a two-day workshop on low-cost educational resources. This alternative format, and focus on a specific dimension of the Action Line's remit, proved much more successful in stimulating debate and networking amongst participants. UNESCO would like to build on this experience of focusing debate and enabling more substantive discussion fora across the range of Action Lines that it facilitates, including both physical meetings and short-term online discussion fora.

3.9 The Internet Governance Forum

3.9.1 The Internet is at the heart of progress towards inclusive Knowledge Societies. WSIS recognised its importance by asking the UN Secretary-General to establish a multi-stakeholder Internet Governance Forum (IGF) – an annual forum in which international agencies, governments, Internet professionals, businesses and civil society organizations can explore, on an equal footing, the development of the Internet and its interaction with other areas of public policy.

3.9.2 Four meetings of the IGF have been held – in Athens (Greece, 2006), Rio de Janeiro (Brazil, 2007), Hyderabad (India, 2008) and Sharm-El-Sheikh



(Egypt, 2009). The fifth is scheduled to be held in Vilnius (Lithuania) in September 2010.

3.9.3

UNESCO believes the Internet is crucially important in creating opportunities to enhance the free flow of information and ideas throughout the world. It has been an active participant in meetings of the IGF, stressing that Internet governance should respect human rights and build upon the principles of openness, including freedom of expression, diversity, and interoperability. Since 2006, UNESCO has organised twelve high-level panels and workshops at IGF meetings, in partnership with a variety of other stakeholders, on issues including freedom of expression and information, privacy and security, multilingualism, social networking and on the Internet's importance for development. It has also signed a partnership agreement with the Internet Corporation for Assigned Names and Numbers (ICANN) to promote multilingualism on the Internet, and is supporting work to introduce internationalised domain names.



3.9.4

UNESCO shares the widespread enthusiasm of IGF participants for a Forum which has embraced multi-stakeholder participation, improved understanding of the Internet and enhanced the quality of debate about its impact. At UNESCO's 35th General Conference in October 2009, 193 Member States adopted a decision to strengthen UNESCO's involvement in the international debate on Internet governance.

4. IMPLEMENTATION

4.1 Introduction

4.1.1 UNESCO was established in 1945 as a United Nations specialized agency charged with *building peace in the minds of man* by promoting international collaboration through education, science and culture. It pursues these objectives through five major programme areas. Four of these are concerned with education, natural sciences, social and human sciences and culture, in all of which information and communication play an important part. The fifth is explicitly concerned with building inclusive knowledge societies through information and communication. In each of these areas, UNESCO acts as a laboratory of ideas, a standard-setting agency, a clearing house for information and expertise, a source of capacity building, and a catalyst for international cooperation. Although it has limited resources to pursue programmes directly, it works with other international organizations, governments and other stakeholders to advance the strategic objectives covered by its mandate.

4.1.2 UNESCO has long recognised the importance of media, and of information and communication technologies and services, for the development of nations, the capabilities of communities and the empowerment of individuals. In its core programme area concerned with building inclusive knowledge societies, UNESCO has consistently emphasised the importance of freedom of expression, quality education for all, universal



access to information and knowledge, and the respect for cultural and linguistic diversity.

4.1.3 UNESCO's agenda and experience chimed well with the objectives of the World Summit on the Information Society. Its unique contribution to WSIS lay in the emphasis it placed on the development not just of an Information Society but of Knowledge Societies, and on the human dimension of those societies. It consistently put forward an understanding of development rooted in education, free expression and human rights, as well as in the appropriate use of technologies.

4.1.4 UNESCO therefore has a natural role in supporting and contributing to the implementation of the WSIS outcomes. These outcomes fall clearly within its broader agenda and responsibilities, and within the mandates of long-established UNESCO programmes to promote objectives which WSIS also shared. But implementing the outcomes of the World Summit is only one part of UNESCO's mandate as the specialized UN agency for education, science, culture and communication. This section of the report describes a number of programmes and activities which UNESCO undertakes today, both on its own and in partnership with others, that contribute to the achievement of WSIS objectives. Some of these programmes are long-established; some build on principles and partnerships that began as part of WSIS and its implementation; some are entirely new initiatives. All seek to contribute to UNESCO's core objective of building inclusive Knowledge Societies and to the WSIS aim of achieving a people-centred development-oriented information society.



4.1.5 Two specific programme areas are central to UNESCO's work on Knowledge Societies. These are concerned with:

- enhancing universal access to information and knowledge; and with
- fostering pluralistic, free and independent media and information structures.

4.2 Universal access to information and knowledge

4.2.1 Universal access to information and knowledge is fundamental to the development of inclusive Knowledge Societies. In the past, information and knowledge have too often been the preserve of powerful social or economic groups. Inclusive Knowledge Societies are those in which everyone has access to the information that s/he needs and to the skills required to turn that information into knowledge that is of practical use in her/his life.



4.2.2 UNESCO's Information for All Programme (IFAP), established in 2001, is the only intergovernmental programme dedicated to promoting universal access to information and knowledge. Amongst other areas, this Programme focuses on the content and capability of people to access and make effective use of information for development and empowerment.

4.2.3 The Programme's overarching goal is to help Member States to develop and implement national information policies and knowledge strategies in a world that is increasingly making use of ICTs. Its strategic plan for the years 2008-2013 identifies key areas of activity in pursuit of this objective, including:

- the development of a comprehensive information and knowledge policy framework, covering all channels for gathering and distributing information and complemented by policy frameworks in five priority areas – information for development, information literacy, information preservation, information ethics and information accessibility;



- the development and maintenance of an observatory on the information society;
- assistance to Member States in developing and implementing national information policy frameworks relevant to their particular needs and situations, including the mainstreaming of information into national public policy agendas;
- and increased synergy and cooperation in these areas with diverse stakeholders, including intergovernmental organizations, NGOs, research institutes, other international organizations and the private sector.

4.2.4 As part of its efforts to promote universal access to information and knowledge, UNESCO has launched multiple initiatives to make content and software widely available. This includes UNESCO's Open Educational Resources Community (OER) Wiki¹⁴ (with over 950 members from 110 countries). The Wiki provides a global map of OER initiatives, an OER Do-it-Yourself Toolkit, and a comprehensive databank of news, events, and resources.

4.2.5 UNESCO has also launched an open training platform¹⁵ to empower trainers and/or trainees with free resources and offer them a structured collaborative space to share their training. This currently has more than 3,000 resources produced by over 600 development stakeholders worldwide on a wide variety of subjects.

4.3 Freedom of expression and media development

4.3.1 Freedom of expression is also fundamental to the development of inclusive Knowledge Societies. Freedom of expression enables people to share ideas



14 <http://oerwiki.iiep-unesco.org>

15 www.opentrainingplatform.org

and experiences, to learn from others and to influence the outcome of decisions that affect their lives. Developments in the media, including community broadcasting and the World Wide Web, have opened up new opportunities for individuals and organizations to publish information and ideas, learn from what others have to say, and engage with government and other authorities. The importance of freedom of expression and information was emphasised in WSIS' outcome documents.

4.3.2 Freedom of expression is the central principle behind UNESCO's International Programme for the Development of Communication (IPDC), the only dedicated programme funding media development within the UN system.

4.3.3 Over the last thirty years, IPDC has committed more than US\$100million to 1200 projects in 140 countries. Through its projects, it promotes freedom of expression and the development of community media, plurality of content and opinion, and the training of media professionals. Examples of its work range from support for the Media Institute of South Africa to improve the quality of journalism in post-apartheid South Africa to the development of a women's media centre in Cambodia and the training of the next generation of professional journalists in Mongolia.

4.3.4 One of the most important initiatives in UNESCO's work on freedom of expression since the second phase of WSIS has been the publication and endorsement of a series of Media Development Indicators. These indicators, which were published in 2008, provide a framework for assessing the openness of different national media environments, for benchmarking these against one another and so encouraging best practice. They have been used by UNESCO in partnership with local agencies in several countries, including Mozambique, Croatia and Benin. The interface between journalism and new media is increasingly important in this area, and the Media Development Indicators are an important part of UNESCO's work to achieve the goals of WSIS Action Line C9.

4.4 Promoting Knowledge Societies

4.4.1 A number of examples of specific UNESCO initiatives to promote Knowledge Societies, which relate to different WSIS Action Lines, were mentioned in the previous section of this report. The following paragraphs illustrate briefly how these projects contribute to fulfilling both UNESCO's objectives and the WSIS goals.

4.4.2 Community Media (radio and multimedia centres)



UNESCO has promoted community media worldwide. Its International Initiative for Community Multimedia Centres (CMCs) provides enabling access to telecommunications and the Internet together with community radio facilities, and thereby promotes empowerment, particularly in marginalised areas. The combination of these varied communications services gives a stronger public voice to the community and improves accountability and governance,

while also offering information, education and entertainment. Since 2001, UNESCO has established more than 50 CMCs in Africa, with support from the Swiss Agency for Development and Cooperation. As well as fitting into UNESCO's overall activity, this programme helps achieve the goals of WSIS Action Lines 3 and 9.

4.4.3 The Memory of the World



UNESCO's *Memory of the World* programme was launched in 1992. With the aim of preserving the documentary heritage of cultures throughout the world, its global mandate is to afford opportunities not just to preserve cultural diversity, but to make the experience of cultures more widely available, both to their own communities and the wider world. This resonates strongly with WSIS Action Lines C3 and C8.

4.4.4 ICT Competency Framework for Teachers

Education for All (EFA) is one of UNESCO's central goals. Achieving the established EFA goals requires innovation in areas such as

distance learning and the use of IT tools within the classroom. UNESCO's ICT Competency Framework, introduced in 2008, seeks to establish a core syllabus and learning materials, qualifications and professional development skills that will enable teachers in many countries to integrate ICTs into their teaching methods. It is one of a number of UNESCO programmes that focus on the role of ICTs in education and learning, one of the themes of Action Line C7.



4.4.5 **The Encyclopaedia of Life Support Systems**

The Encyclopaedia of Life Support Systems, supported by UNESCO, is a virtual library of resources on natural and social sciences which is available to educational institutions, with preferential access arrangements for those in Least Developed Countries (LDCs). It represents part of UNESCO's longstanding commitment to the sharing of scientific information, which is also supported in WSIS Action Line C7 on e-science and in a current UNGIS joint initiative.

4.4.6 **The World Digital Library**



The World Digital Library was launched by UNESCO in 2009 with 32 partner organizations, including the United States Library of Congress and other national libraries. It provides free web access to rare books,

maps, films, sound recordings and other cultural materials from libraries and archives around the world, including content in more than forty languages. Although still in its infancy, it illustrates how ICTs can foster the sharing of cultural resources, and contributes to the achievement of the goals of WSIS Action Line C8.

4.4.7 **Info-Ethics Conferences**

Promoting values and principles based on fundamental human rights is central to the development of an equitable information society. The four Info-Ethics regional events for Latin America, Africa, Europe, and Asia and the Pacific Region, organized by UNESCO in 2006-2008, contributed significantly to improving awareness of the challenges of

information ethics. They helped to establish criteria for assessing, at national and regional levels, ways of enhancing the debate and the decision-making process on major ethical issues and consequently for measuring developments in the field of information ethics. These events led to strengthened international cooperation and to the design and implementation of pilot national, regional and inter-regional initiatives in this field.

4.4.8 These are just a few examples of the many activities which UNESCO undertakes in information and communication which contribute towards the achievement of WSIS objectives. All of UNESCO's work, both in its own programmes and in partnership with other agencies, is concerned with extending opportunities for citizens to engage more effectively with their societies and improve their quality of life. Education and access to information are critical to such initiatives across the whole range of UNESCO's work. So is its commitment to inclusiveness, especially addressing the needs of women and of marginalized and disadvantaged groups.

4.4.9 As these programmes show, UNESCO's work to promote Knowledge Societies incorporates much of the agenda which was agreed at WSIS. These programmes are not designed specifically or exclusively to achieve the WSIS goals but have been informed by the discussions and agreements that were reached in Geneva and in Tunis. As a policy and programme coordinator, UNESCO has sought to implement the WSIS goals by integrating them into its established programme and workplans, and will continue to do so.



4.5 Multi-stakeholder partnerships

- 4.5.1** The World Summit on the Information Society was remarkable for the degree of engagement in its work between governments, the private sector and civil society organizations. It is, of course, governments that are primarily responsible for public policy on information and communication and their impact on society, economy and culture, including human rights. However, it is private sector businesses that play the leading role in delivering ICTs to their end-users, in telecommunications, broadcasting and the Internet – investing in networks and innovating in hardware, software and service design. Civil society organizations, too, have wide-ranging expertise in information, communications and their impact on local communities, and play an important part in developing ideas about the application of ICTs within society.
- 4.5.2** WSIS' final outcome documents strongly endorsed the principle of multi-stakeholder participation in debate about ICTs and their public policy implications. This principle was incorporated in the structure of the Action Lines described above and of the Internet Governance Forum, and is inherent in the preparation and establishment of the WSIS Forum.
- 4.5.3** UNESCO has welcomed the opportunity to work in multi-stakeholder partnerships. It has built up a portfolio of partnerships with private sector companies and other actors in the ICT field since WSIS. These include:

- a partnership with Cisco, focused on technology for education;



- a partnership with Intel, focused on innovation in education;
- a partnership with Microsoft, focused on innovation in education and other areas;
- a partnership with Sun Microsystems, focused on open source technologies and their application in education and elsewhere;
- a partnership with the Internet Corporation for Domain Names and Numbers (ICANN), focused on multilingualism and internationalized domain names;
- a partnership with the Talal Abu-Ghazaleh organization, focused on mobilizing partners to build knowledge societies by increasing ICT access and measurement;
- a letter of intent with the Global e-Schools and Communities Initiative (GeSCI), focused on the role of education in developing Knowledge Societies;
- and some 300 official and institutional relations with non-governmental organizations (NGOs).

4.5.4

UNESCO's partnership with ICANN illustrates the important role that these relationships can play. The Internet and World Wide Web were first developed in the United States and Europe, using technical interfaces that depended on the Latin alphabet. Enabling the Internet and Web to make full use of other alphabets, and so making access to them more equitable for users of those alphabets, has been a major technical

challenge. ICANN has been in the forefront of efforts to resolve this, particularly where internationalized domain names are concerned, and UNESCO's partnership with ICANN has enabled it to bring its unique experience of linguistic and cultural diversity to bear on the development of a truly multilingual Internet. This partnership plays an important part in UNESCO's work to implement WSIS Action Line C8.

4.5.5

Partnerships like these recognise the lesson, from WSIS, that the Information Society is not a goal that can be achieved by governments alone but something that results from the activities of many different stakeholders. They enable UNESCO and its partners to reach beyond what they could achieve through their own resources and expertise.





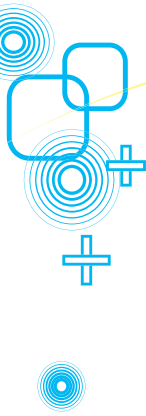
5. THE WAY FORWARD

5.1 Introduction

5.1.1 This year, 2010, is an important time to reflect on what has been accomplished in terms of WSIS implementation, and on what still needs to be achieved. It is now almost five years since the second phase of WSIS concluded in Tunis, and almost seven years since the first Summit ended in Geneva. It is also the midway point between the end of the Summit process and the review of WSIS outcomes which is scheduled for 2015.

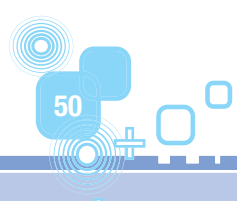
5.1.2 The years since 2005 have seen dramatic changes in the information and communication landscape.

- The number of registered mobile telephone subscriptions has increased from around 2.2 billion to around 4.7 billion, with at least three billion people now owning their own mobile phones and some



80% of the world's population living within areas covered by mobile networks. For the first time, telephone usage is within easy reach of the large majority of people.

- Although not as fast as mobile phones, Internet usage has also grown considerably. The number of Internet users has risen from under 1 billion to around 2 billion worldwide. For many people, especially in industrial and emerging market countries, the Internet is now part of their daily experience, greatly expanding the availability of information available to them.
- New forms of communication have taken root. The digitalisation of broadcasting has continued the trend towards greater pluralism and diversity in radio and television, while also extending the reach of global communications businesses. The advent of social networking and of opportunities for self-publication through Web 2.0, which was just beginning at the time of the Tunis Summit, has dynamically changed opportunities for freedom of expression and the exchange of information and resources.
- The quality and capacity of networks are increasingly crucial to the use of information and communications, and to the creation and exploitation of knowledge. All regions of the world are now connected by high-capacity submarine cable. Broadband networks are being rapidly deployed, upgrading the quality of Internet access where it has previously been poor. In some countries, more people now access the Internet through mobile devices than on computers, and



advances in mobile networks suggest that future Internet access for many people will come through mobile devices rather than PCs.

- The application of information technology in government, business and society has become much more widespread. Some of the developments anticipated in the WSIS outcome documents are now commonplace, while others have been overtaken by events. The relationship between individual and community access to information, in particular, has changed dynamically as a result of the growth in mobile telephony. Many new applications with developmental value have also been introduced, for example mobile transactions.

5.1.3 These changes in the information and communications landscape have not just changed the nature of technology and markets, the behaviour of individuals and the potential which ICTs have to change their lives. They have also changed the nature of the opportunities and challenges which ICTs pose for policymakers in the communications field, in economic and social development, in education, science and culture. There is now talk within the development community of a new paradigm for ICTs within development, which moves on from that which prevailed during the Summit.¹⁶



5.1.4 UNESCO has always considered WSIS as an important stage in international efforts towards the inclusive Knowledge Societies that can advance social and economic development within a framework of human rights, freedom of expression, empowerment and cultural and linguistic diversity. WSIS played a crucial role in building awareness and understanding of the emerging Information Society and of how this might enable Knowledge Societies over time. It gave moral force, through

16 See Heeks, Richard. 2009. "The ICT4D 2.0 Manifesto: Where Next for ICTs and International Development." University of Manchester Centre for Development Informatics Working Paper Series no. 42, 2009.

international agreement, to crucial principles for the development of Knowledge Societies.

5.1.5 These principles provide a valuable platform on which policymakers have been able to develop new strategies and policies. It is important to build on this legacy of WSIS as we move forward towards 2015, the target date for many internationally agreed goals including the WSIS targets and the Millennium Development Goals – and to the years that will follow this review.

5.1.6 As many commentators have noted, however, the discussions and priorities of WSIS were those of 2003, not of 2010. If we are to move forward successfully, it is important that we build continued implementation of the WSIS goals on the basis of today's information and communications landscape – a landscape which, as described above, has changed substantially since 2005 and which continues to change dynamically. At this mid-point between the Tunis summit and the target date for achievement of the WSIS goals, we need to shift our focus from what we have achieved to date on the basis of the WSIS framework towards what we can achieve with today's information and communication environment and that which is evolving for tomorrow.

5.2 **Coordination**

5.2.1 UNESCO will seek to strengthen its partnership with the ITU, UNCTAD and other UN agencies with the aim of maximising coherence and synergies between UN agencies and other stakeholders. UNGIS has an important part to play in this regard, and needs to strengthen its capabilities and focus on the forthcoming review of WSIS outcomes. It should cooperate with other post-WSIS fora such as the IGF and GAID, and address the need to integrate ICTs in the “Delivering as One” UN and UNDAF processes.

5.2.2 UNGIS is, however, only part of the wider response required within the UN system and by governments to the growing importance and challenges of ICTs. UNESCO and its partners – both within UNGIS and in the wider



multi-stakeholder community – must work together to facilitate the appropriate use of ICTs for development, and raise the understanding of related issues by national authorities. This is no longer a matter of ensuring that attention is paid to a new area of growing significance within development, but of making sure that enough attention is paid to an area which is already commonly accepted as being of substantial importance.



5.2.3 UNESCO's Institute for Statistics will continue to refine and expand its indicators to reflect new policy paradigms regarding the integration of ICTs in education, and – if resources permit – address the need to complement input measures with measures of impact that can help policymakers to maximise the potential of ICTs in this crucial area.

5.2.4 UNESCO will continue to work with ITU and UNCTAD to build on the improvements in Action Line coordination that began with the introduction of the new - WSIS Forum - format in 2009. The Forum should, however, be only one part of wider cooperation on Information Society issues between UN agencies and the diverse stakeholder communities involved.

5.2.5 UNESCO will also review experience with the WSIS online community facility which it has developed for the WSIS implementation process, and consider how that might best be used to consolidate evidence and analysis of WSIS implementation experience ahead of the 2015 review.

5.3 Facilitation

5.3.1 UNESCO is responsible for facilitating six of the WSIS Action Lines. This work is integral to UNESCO's wider work to promote its inclusive Knowledge Societies objectives as a whole.

- 5.3.2** UNESCO will continue to facilitate the implementation of the six Action Lines. It will focus discussions at Action Line meetings on specific areas within their remits, in order to enable more substantive discussions to take place, and will experiment with different approaches to Action Line activity designed to increase participation and add value to stakeholders in each area.
- 5.3.3** However, the Action Lines are only worthwhile if they add value to stakeholders. UNESCO intends to review its Action Lines facilitation experience following the 2010 WSIS Forum meeting, in consultation with participants and others, in order to identify the best way forward to add value for stakeholders.
- 5.3.4** One possibility for the future would be for UNESCO to organise a series of expert meetings related to the Action Lines that it facilitates. A week of expert meetings might be held at its Paris Headquarters, or meetings on specific subjects might be organised alongside other international events.
- 5.3.3** UNESCO will continue to contribute actively to the work on the Internet Governance Forum. UNESCO also supports the continuation of IGF's mandate beyond its present five-year term.

5.4 Implementation

- 5.4.1** UNESCO's most substantial contribution to WSIS implementation will continue to lie within its own programmes for building inclusive Knowledge Societies through information and communication, across all programme sectors of the Organization.
- 5.4.2** As described in this report, the WSIS outcomes coincide with UNESCO's longstanding objectives of contributing to the building of peace, the eradication of poverty, sustainable development and intercultural dialogue, with particular emphasis on freedom of expression, universal access, quality education and cultural and linguistic diversity. UNESCO's existing programmes in these areas, whether conducted independently

or in association with its partners, respond to the broad mandate which it holds within the UN system. While not dependent on the WSIS outcomes, they are and will remain the most important way in which UNESCO and its partner agencies implement the WSIS outcomes.

5.4.3

The information and communication landscape continues to experience rapid change. This will raise new challenges for UNESCO and others concerned with both WSIS implementation and the development of Knowledge Societies. Rooted in the Organization's mandate to promote the free flow of ideas by word and image and to maintain, increase and diffuse knowledge, UNESCO will continue to put into practice its concept of Knowledge Societies that are inclusive, pluralistic, equitable, open and participatory. The Organization will address the challenges and opportunities offered by advances in communication and information, and harness the significant potential of these transformations for contributing to the attainment of Internationally Agreed Development Goals, in particular poverty eradication and sustainable development, as well as creating mutual understanding among peoples and societies.



Annex

Examples of UNESCO's efforts to develop and apply ICT in Education indicators. An extensive analysis and interpretation of the data collected by UNESCO's Institute of Statistics is published in ITU's: World Telecommunication/ICT Development Report 2010. - Monitoring the WSIS Targets: A midterm Review.

Infrastructure (electricity and old technology in schools)								
	Proportion of schools with electricity		Proportion of schools with a radio used for educational purposes		Proportion of schools with a television used for educational purposes		Proportion of schools with a telephone communication facility	
	Total %	Public %	Total %	Public %	Total %	Public %	Total %	Public %
Argentina ¹	94,6	93,3	...	...	...	...	67,3	58,8
Austria ¹	...	...	...	...	...	...	...	...
Bahrain	100	100	100	100	100	100	100	100
Belarus	100 ⁴	100	.	.	.	.	100 ⁴	100
Costa Rica	94,3	93,3	3,4	4,0	2,5	2,9	70	65,1
Dominican Republic	...	...	...	...	1,3	1,5	41,9	22,5
Egypt	100	100	47,3 ⁴	47,3	...	...	51,6 ⁴	51,6
Estonia	100 ¹	100 ¹	...	...	...	...	100 ¹	100 ¹
Ethiopia	4,9	...	...	...	34,5	...	...	...
Finland	100	100	100	100	100	100	100	100
Ghana ²	36,7	28,7	.	.	.	.	67,8	64,3
Guatemala ²	37,1 [*]	56,3 [*]	0,2	–	2,7	4,1	29,9 [*]	8,3 [*]
Jordan ²	99,7	99,6	0,1	0,1	0,1	0,1	83,4	79,9
Malaysia	100	100	100	100	100	100	87	86,6
Mauritius	100	100	93,4	95,8	96,8	100	100	100
Morocco	55,4	51,0	–	–	–	–	25,3	18
Norway ²	100	...	.	.	.	.	100	...
Oman	98,8	...	100	...	100	...	100	...
Palestine ²	99,7	99,5	96,2	95,7	91,0	90,3	93,1	92,4
Paraguay	88,5	87,8	.	.	.	.	20,9	14
Poland	100	100	...	...	...	...	100	100
Republic of Korea	100 ²	100 ³	100 ²	100 ³	100 ²	100 ³	100 ²	100 ³
Russian Federation	100	100	...	...	...	...	100	100
Senegal	26,3	18,1	.	.	.	.	...	...
Sweden	100	100	100	100	100	100	100	100
Tunisia	99,7	99,6	–	–	–	–	...	...
Uruguay	100	100	...	...	...	...	100	100

Please refer to page 63 for the endnotes.

Infrastructure (Computers in schools)

	Learners-to-computer ratio in all schools		Learners-to-computer for pedagogical use ratio		Learners-to-computer ratio in schools with computer-assisted instruction		Average number of computers per educational institution	
	Total	Public	Total	Public	Total	Public	Total	Public
Argentina ¹	34	47	41	57	24	30	8	5
Austria ²	6*	...	...	...	...	...	32 ^{*,8}	...
Bahrain	6	3	6	3	6*	3*	105	105
Belarus	23 ⁴	23	27 ⁴	27	16 ⁴	16	13 ⁴	13
Costa Rica	25	36	...	...	...	...	7	5
Dominican Republic	179 ⁴	179	...	...	...	...	1	1
Egypt	56	58	...	...	...	...	6	6
Estonia	6 ¹	6 ¹	...	...	...	...	42 ¹	43 ¹
Ethiopia	...	...	...	...	...	...	...	...
Finland	4 ^{**}	4^{**}	...	...	...	...	55	55
Ghana ²	117	586	...	...	...	...	2	0,3
Guatemala ²	...	95	...	...	...	...	14	1
Jordan ²	20	17	23	20	20	18	17	20
Malaysia	13	14	15	...	15	...	41	40
Mauritius	20	21	23	23	15	15	25	22
Morocco	174 ^{4,6}	174 ⁶	...	...	...	...	1 ^{4,6}	1 ⁶
Norway ²	...	...	...	...	...	...	...	...
Oman	19^{**}	...	...	...	...	...	36	...
Palestine ²	37	37	...	...	...	...	12	11
Paraguay	...	...	...	...	...	...	...	...
Poland	10	...	...	...	...	...	17	...
Republic of Korea	5 ⁵	5 ⁷	5 ⁵	6 ⁷	5	6	130 ²	123 ³
Russian Federation	15 ^{*,4}	15*	...	...	...	...	15 ^{*,4}	15*
Senegal	...	...	...	...	...	...	...	...
Sweden	3	3	...	...	...	...	77	80
Tunisia	30 ⁴	30	35 ⁴	35	...	-	12 ⁴	12
Uruguay	...	...	...	...	...	...	...	...

Please refer to page 63 for the endnotes.

Infrastructure (Internet in schools)

	Proportion of schools with Internet access		Proportion of schools with fixed narrowband Internet access (using modem dial-up, ISDN)		Proportion of schools with fixed broadband Internet access (DSL, cable, other fixed broadband)		Ratio of learners-to-computer connected to Internet	
	Total %	Public %	Total %	Public %	Total %	Public %	Total %	Public %
Argentina ¹	42,4	28,5	20,7	18,2	21,7	10,2	...	...
Austria ¹	100 ³	100 ³	...	...	...	...	...	...
Bahrain	100	100	-	-	100	100	6	3
Belarus	61,2 ⁴	61,2	54,3 ^{*,4}	54,3 [*]	6,9 ^{*,4}	6,9 [*]	67 ^{*,4}	67 [*]
Costa Rica	44 ⁴	44	...	...	...	...	38 ⁴	38
Dominican Republic	2,3	2,8	...	...	...	...	...	...
Egypt	53,8 ⁴	53,8	47,4 ⁴	47,4	6,5 ⁴	6,5	74	...
Estonia	96,9 ¹	97,3 ¹	10,7 ¹	10,2 ¹	86,3 ¹	87,1 ¹	7 ¹	7 ¹
Ethiopia	1,6	...	...	...	...	...	...	...
Finland	100	100	14,8	14,8	85,2	85,2	4 ^{**}	4 ^{**}
Ghana ²	.	.	.	.	.	.	.	.
Guatemala ²	0,04 ⁴	0,04	...	...	...	...	132	...
Jordan ²	79,7	82,5	7,1	6,2	72,6	76,3	...	...
Malaysia	100	100	19,8	20,5	80,1	79,5	...	...
Mauritius	85,5	83,3	5,8	3,1	75	79,1	45	74
Morocco	2,9	1,6	.	.	2,9	1,6	558 ⁴	558
Norway ²	100	.	.	.	.	.	...	...
Oman	61,8	...	34,1	...	23,1	...	52 ^{**}	...
Palestine ²	23	6,4	...	...	...	...	...	...
Paraguay	7,7	4,6	...	...	...	...	...	...
Poland	...	...	...	...	...	...	12	...
Republic of Korea	100 ²	100 ²	.	.	100 ²	100 ³	6 ⁵	6 ⁷
Russian Federation	80 ^{*,10,4}	80 ^{*,10}	36,5 ^{*,10,4}	36,5 ^{*,10}	42,7 ^{*,10,4}	42,7 ^{*,10}	39 ⁴	39
Senegal	4,8	4,9	...	...	...	...	...	...
Sweden	100	100	-	-	100	100	3	3
Tunisia	80,6	79,3	...	...	...	...	...	...
Uruguay	100	100	...	...	100	100	...	...

Please refer to page 63 for the endnotes.

Infrastructure (educational technologies in schools)

	Proportion of schools with computer-assisted instruction		Proportion of schools with Internet-assisted instruction		Proportion of schools with a website	
	Total %	Public %	Total %	Public %	Total %	Public %
Argentina ¹	...	...	...	...	...	...
Austria ²	75,5 ^{*,8}	...	...	...	89,2 ^{*,8}	./.
Bahrain	100	100	100	100	100	100
Belarus	91,8 ⁴	91,8	44,8 ⁴	44,8	13,3 ⁴	13,3
Costa Rica	-	-	-	-	...	...
Dominican Republic	0,03	0,04	...	...	...	...
Egypt	62,7 ⁴	62,7	...	...	21,5 ⁴	21,5
Estonia	...	...	...	...	...	...
Ethiopia	...	...	1,6	...	...	...
Finland	100	100	100	100	...	...
Ghana ²	...	...	...	...	...	...
Guatemala ²	3,3 ⁴	3,3	...	...	...	...
Jordan ²	86,1	83,2	79,7	82,5	12	5,9
Malaysia	100	100	100	100	23,8	23,1
Mauritius	99,1	100	85,5	83,3	14,7	6,6
Morocco	...	...	...	...	...	...
Norway ²	.	.	.	.	.	.
Oman	100	...	61,8	...	...	...
Palestine ²	...	...	23	6,4	...	...
Paraguay	...	...	...	...	...	...
Poland	69,2	...	65,3	...	...	...
Republic of Korea	100 ²	100 ³	100 ²	100 ³	98,3 ²	98 ³
Russian Federation	...	...	...	...	...	...
Senegal	...	...	...	...	...	...
Sweden	100	100	100	100	89,9	90,7
Tunisia	84,2	83,2	80,6	79,3	22 ⁴	22
Uruguay	100	100	100	100	85,1	81,9

Please refer to page 63 for the endnotes.

Teaching staff and ICTs

	Proportion of ICT-qualified teachers in primary and secondary schools			Proportion of primary and secondary school teachers who teach basic computer skills		
	Total %	Public %	Female %	Total %	Public %	Female %
Argentina ¹	3,4	3,2	2	...	...	...
Austria ¹	...	...	...	...	...	...
Bahrain	5,9	...	...	5,9	...	...
Belarus	2,5 ⁻⁴	2,5 ¹	...	2,6 ⁴	2,6	...
Costa Rica	3,6 ⁴	3,6	1,8	11,6 ⁴	11,6	5,8 ⁴
Dominican Republic	1,9	1,9	0,5	...	...	...
Egypt	24,5 ⁴	24,5	...	1,9 ⁴	1,9	...
Estonia	1,1 ¹	1,1 ¹	1,0 ¹	2	2	1,8
Ethiopia	...	...	...	...	...	...
Finland	.	.	.	.	.	.
Ghana ²	0,3	0,4	0,01	...	...	...
Guatemala ²	...	...	...	18,5	...	...
Jordan ²	5,9	6	3	5,9	6	3
Malaysia	2,9	2,5	2	2,9	1,3	2
Mauritius	...	...	...	5	5,1	3,1
Morocco	0,9 ⁴	0,9	...	0,9 ⁴	0,9	...
Norway ²	...	...	...	...	...	...
Oman	...	...	...	...	...	...
Palestine ²	5,5	5,9	2,7	5,5	5,9	2,7
Paraguay	1,0	0,6	0,4	...	...	...
Poland	...	...	...	...	...	...
Republic of Korea	3,7 ¹²	3 ¹³	...	4,1 ¹²	3,6 ¹³	...
Russian Federation	...	...	...	2,2 ^{10,4}	2,2 ¹⁰	...
Senegal	...	...	...	...	...	...
Sweden	...	...	...	...	...	...
Tunisia	3,9	3,9	1,9	3,9	3,9	1,9
Uruguay	...	...	...	...	...	...

Please refer to page 63 for the endnotes.

Learners and ICTs usage

	Proportion of learners who have access to the Internet at school		Proportion of learners entitled to use computer laboratories at school as a pedagogical aid		
	Total %	Public %	Total %	Public %	Female %
Argentina ¹	30,2	20,4	62,2	53,7	31,6
Austria ²	...	...	...	...	...
Bahrain	72,7*	79,4	88,4*	92,4*	46,5
Belarus	.	.	59,5 ⁴	59,5	29,8
Costa Rica	40,5 ⁴	40,5	63,3	59,9	31,5
Dominican Republic	...	...	...	...	...
Egypt	...	...	...	...	...
Estonia	...	...	...	...	...
Ethiopia	...	...	...	...	...
Finland	...	...	...	...	...
Ghana ²	.	.	.	.	.
Guatemala ²	...	...	...	...	...
Jordan ²	72,3	83,5	85,4	90	46
Malaysia	100	100	100	100	49,4
Mauritius	35,4	29,6	64,5	64,9	33,2
Morocco	...	...	26,5	22,7	12,3
Norway ²	...	...	100	...	49,8
Oman	...	...	...	...	...
Palestine ²	...	...	...	...	...
Paraguay	...	...	20,8	13,5	10,6
Poland	...	...	...	...	...
Republic of Korea	99,7 ⁵	99,8 ⁷	99,7 ⁵	99,8 ⁷	...
Russian Federation	...	...	...	...	...
Senegal	...	...	...	...	...
Sweden	...	...	...	...	...
Tunisia	-	-	-	-	-
Uruguay	...	...	...	...	...

Please refer to page 63 for the endnotes.

ICTs for equity

	Proportion of schools located in rural areas		Proportion of rural schools with ICT-assisted instruction	
	Total %	Public %	Total %	Public %
Argentina ^v	38,1	47,8	...	...
Austria ^v	...	...	...	...
Bahrain	.	.	.	.
Belarus	66,9 ⁴	66,9	90,1 ⁴	90,1
Costa Rica	35,3	40,2	16,7	17,1
Dominican Republic	45,3	54,3	...	...
Egypt	36,5	39,3	...	...
Estonia	61,2 ¹	63,8 ¹	...	...
Ethiopia	82,1	86,3	...	...
Finland	30,8	30,8	100	100
Ghana ²	66,4	75,8	...	...
Guatemala ²	0,4 ⁴	0,4	...	...
Jordan ²	41,6	52,3	66,5	66
Malaysia	60	62,1	100	100
Mauritius	54,5	62,7	...	...
Morocco	74,2	81,2	3,7 ⁴	3,7
Norway ²	.	.	.	.
Oman	1,2	...	100	...
Palestine ²	...	...	...	...
Paraguay	64,8	71,5	...	...
Poland	43,7	./.	...	...
Republic of Korea	42,7 ²	45 ³	100	100
Russian Federation	61,3 ⁴	61,3	...	...
Senegal	74	83,2	...	...
Sweden	...	...	...	...
Tunisia	43,6	46,3	80	80
Uruguay	37,2	45,2	100	100

Please refer to page 63 for the endnotes.

Endnotes:

- 1 Data for all ISCED level 1-3 general education institutions
 - 2 The number of educational institutions is 11,760 and the relative size of missing institutions represents 6.6%
 - 3 The number of public educational institutions is 9,981 and the relative size of missing public institutions is 5.96%.
 - 4 Data refers to public schools only
 - 5 The learner population for ISCED 1-3 educational institutions is 7,664,185 and the relative size of the learner population for missing institutions is 8.01%.
 - 6 Represent computers installed under Programme GENIE - phase 1
 - 7 The learner population for ISCED 1-3 public educational institutions is 6,343,675 and the relative size of the learner population for missing public institutions is 7.23%.
 - 8 Data does not include private schools of their own statute as well as schools of the health sector.
 - 9 Data does not include schools of the health sector.
 - 10 Data includes ISCED 1, 2, 3A
 - 11 Data refers to learners in schools equipped with computer equipment
 - 12 The teacher population for ISCED 1-3 educational institutions is 351,102 and the relative proportion of teachers for missing institutions is 4.73%.
 - 13 The teacher population for ISCED 1-3 public educational institutions is 283,029 and the relative proportion of the teachers for missing public institutions is 3.65%.
- (z) Data are for the school year ending in 2009
(y) Data are for the school year ending in 2007
* National estimate
** UIS Estimate
... Missing data
- Magnitude nil
. Category not applicable
./. Data included under another category

Notes:

Total (%) refers to the sum of public and private for any given indicator

Female (%) refers to the percentage of females out of Total (Female+Male)

For the interpretation and the calculation method for each of the indicators please refer to the Guide to Measuring ICT in Education

http://www.uis.unesco.org/template/pdf/cscl/ICT/ICT_Guide_EN.pdf

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