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Convention on the Rights of Persons with Disabilities 2012 ICT Accessibility Progress Report

G3ict

Global Initiative for Inclusive Information and Communication Technologies

Survey conducted in collaboration with DPI - Disabled Peoples' International

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About G3ict

G3ict – the Global Initiative for Inclusive Information and Communication Technologies – is an Advocacy Initiative of the United Nations Global Alliance for ICT and Development, launched in December 2006 in cooperation with the Secretariat for the Convention on the Rights of Persons with Disabilities at UNDESA. Its mission is to facilitate and support the implementation of the dispositions of the Convention on the Rights of Persons with Disabilities promoting digital accessibility and Assistive Technologies. Participating organizations include industry, academia, the public sector and organizations representing persons with disabilities.

G3ict relies on an international network of ICT accessibility experts to develop practical tools, evaluation methods and benchmarks for States Parties, Disabled Persons Organizations (DPOs) and corporations. G3ict organizes or contributes to awareness-raising and capacity building programs for policy makers in cooperation with international organizations, such as the ITU, UNESCO, UNITAR, UNESCAP, and the World Bank. In 2011, G3ict launched the M-Enabling Summit Series to promote accessible mobile phones and services for persons with disabilities in cooperation with the ITU and the FCC.

G3ict produces jointly with ITU the e-Accessibility Policy Toolkit for Persons with Disabilities (*www.e-accessibilitytoolkit.org*) as well as specialized reports on accessible television, accessible mobile phones, web accessibility or universal service which are widely used around the world by policy makers involved in the implementation of the CRPD. For additional information on G3ict, visit *www.g3ict.org*

About DPI

Disabled Peoples' International (DPI) is a dynamic grassroots global organization headquartered in Canada, with five Regional Development Offices in Africa, Asia, Europe, Latin America and North America and the Caribbean, operating in three official languages: English, French and Spanish. Established in 1981 and granted ECOSOC (United Nations Economic and Social Council) status shortly thereafter, DPI has 134 National Assemblies (country organizations) of persons with disabilities worldwide.

Since its inception, DPI has collaborated with the United Nations (UN), civil society, governments and disability-related organizations to produce and disseminate information on disability worldwide. DPI supports persons with disabilities around the world in their efforts to realize their human rights. DPI does this by promoting the full participation of persons with disabilities in all aspect of their community and by encouraging the equalization of opportunities and thereby, outcomes for persons with disabilities. For additional information on DPI, visit *http://www.dpi.org*

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CONTENTS

Acknowledgments

2011 - 2012 International Panel of Experts

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1. In several countries, respondents have indicated their preference not to be recognized in this report. We nevertheless want to express our most sincere gratitude for their commitment to the cause of persons with disabilities and for supporting G3ict's research on ICT accessibility

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This report was made possible thanks to the dedication of the following G3ict Research Team Members:

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Axel Leblois, *Founder and Executive Director of G3ict,* has served for over 20 years as CEO of technology companies in the United States including several years at the helm of IDC, a leading market research and analysis firm with global operations specialized in information and communication technologies. Axel Leblois brings an in depth knowledge of the ICT industry and of global market dynamics influencing the availability of accessible technologies for persons with disabilities. His experience has helped G3ict to develop practical tools promoting ICT accessibility for policy makers, advocates and industry and the present report. A native of France and long term resident of the United States, he holds an MBA from INSEAD and is a graduate of Sciences Po Paris.

Francesca Cesa Bianchi, *VP, Institutional Relations of G3ict,* has worked for G3ict since its inception. Francesca Cesa Bianchi oversees G3ict's relations with international organizations, governments and academia and coordinates the activities of the CRPD Progress Report on ICT Accessibility. Prior to her current position, Francesca Cesa Bianchi served as Director of Public Relations for the Georgia Council for International Visitors, freelance writer for CNN Italia, and as a Carter Center-accredited election observer in Venezuela in 2003 and 2004. She is a Fellow of CIFAL Atlanta, the North American affiliate of the United Nations Institute for Training and Research (UNITAR) where she served as Director of its Gender Equality Program (2006-2009). A native of Milan, Italy, Francesca Cesa Bianchi graduated with a degree in Political Science from Universitá degli Studi of Milan and holds a Master of Arts degree in Communication from Georgia State University.

Viviana Montenegro, *Research Analyst,* has spent several years as statistician and researcher at various institutions including as Director of Economic Development programs at CIFAL Atlanta, the North American affiliate of UNITAR, the United Nations Institute for Training and Research. Viviana Montenegro's expertise in statistical analysis and SPSS and her overseeing of the data collection for this report have been instrumental to its on time completion and depth of analysis. A native of Chile, Viviana Montenegro holds a Master's degree in Public Administration, Public Policy, San Francisco State University and is a graduate of Universidad de Chile.

Elsa Studer, *Research Analyst and Reviewer of the 2012 CRPD ICT Accessibility Progress Report* worked in 2011-2012 at the World Economic Forum where she specialized in analyzing ICT industries in North America while volunteering for G3ict. Prior to this position, she served as Analyst at G3ict for the editing of the 2010 CRPD ICT Accessibility Progress Report and as an Intern at the United Nations Global Alliance for ICT and Development. Elsa Studer's multi-lingual skills, legal and international experience have greatly contributed to collecting and analyzing complex international data. Elsa Studer is a graduate in International Law of the University of Neuchâtel and Columbia University School of Law.

Research Committee

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G3ict Corporate Leaders

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Glossary of Abbreviations

ANSI	American National Standards Institute
AT/ATs	Assistive Technologies
ATMs	Automated Teller Machine
BPKS	Bangladesh Protibandhi Kallyan Somity
CRPD	Convention on the Rights of Persons with Disabilities
DPI	Disabled Peoples' International
DPO/DPOs	Disabled Persons Organization(s)
DCAD	Dynamic Coalition on Accessibility and Disability
ETSI	European Telecommunications Standards Institute
GAID	Global Alliance for ICT and Development
HDI	Human Development Index (UNDP)
ICT/ICTs	Information and Communication Technologies
INRIA	Institut National de Recherche en Informatique et en Automatique
IHEs	Institutions of Higher Education
IEC	International Electrotechnical Commission
ILO	International Labour Organization
ISO	International Organization for Standardization
ITU	International Telecommunication Union
NADPO	National Alliance of Disabled Peoples Organization (Bangladesh)
NGO/NGOs	Non-Governmental Organization(s)
OCR	Optical Character Recognition
OHCHR	Office of the High Commissioner for Human Rights
PwD(s)	Person(s) with Disability (ies)
RERCs	Rehabilitation Engineering Research Centers
TEITAC	Telecommunications and Electronic and Information Technology Advisory Committee
TTY/TDD	Teletypewriter/Telecommunication Device for the Deaf
TTS	Text-to-Speech
UD	Universal Design
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNITAR	United Nations Institute for Training and Research
W3C	World Wide Web Consortium
WDDF	Women with Disabilities Development Foundation (Bangladesh)
WIPO	World Intellectual Property Organization
WHO	World Health Organization

LIST OF TABLES

Executive Summary

The Convention on the Rights of Persons with Disabilities (CRPD) Progress Report on Information and Communications Technology (ICT) Accessibility was launched by G3ict in 2008 with the cooperation of international institutions, Disabled Persons Organizations (DPOs) and the Private Sector. ICT Accessibility is an important factor to realize the Rights of Persons with Disabilities particularly in relation to the implementation of the CRPD by ratifying countries. Virtually all aspects of society are affected by the pervasive usage of information and communication technologies, including mobile communications, television, computers, digital interfaces and the Internet all over the world. Implementing ICT accessibility policies and programs is a complex endeavor involving multiple sectors of society and the economy which requires the active engagement of a variety of stakeholders.

Knowing how much progress is actually accomplished by countries around the world in ICT accessibility is an essential step for all stakeholders in order to address gaps and opportunities in their own countries. This is the main objective of this Progress Report. Its first edition was published in 2010 covering 33 countries
.

This second edition of the CRPD Progress Report on ICT Accessibility covers 52 ratifying countries representing 77.4 percent of the World Population. This second edition of the CRPD report offers disability advocates, governments, civil society and international organizations monitoring the progress of the implementation of the CRPD by States Parties a unique benchmarking tool that collects data on country laws, policies, and programs pertaining to accessible and assistive Information and Communication Technologies (ICTs) around the globe.

The methodology used in developing the Progress Report involved the following key activities. First, a systematic review of CRPD ICT accessibility dispositions and guidelines on country reporting was conducted. Based on this review, 57 data points - grouped in three clusters - relative to the status of ICT accessibility and Assistive Technologies regarding CRPD implementation were identified. The three clusters of data points involve: (a) Leg #1 - Country legal, regulatory and programmatic commitments (35 data points); (b) Leg #2- Country capacity to implement (12 data points); and (c) Leg #3 - Country actual results for persons with disabilities (10 data points). Two sets of surveys - one for legal experts, one for accessibility experts – were then constructed comprised of these 57 data points.

Next, those two sets of surveys were filled out by 103 local correspondents in 52 countries. Data collection for the second edition of the CRPD Progress Report on ICT Accessibility was completed in cooperation with Disabled Peoples' International (DPI) and various disabled person's organizations and experts in countries where DPI correspondents were not available.

"Knowing how much progress is actually accomplished by countries around the world in ICT accessibility is an essential step for all stakeholders in order to address gaps and opportunities in their own countries."

In this 2012 edition of the Progress Report, survey results and analyses identify the degree to which each of the dispositions of the CRPD on ICTs is actually enacted in local laws, policies and regulations and their actual impact. Overall survey results indicate the following:

Survey Data Clusters	Yes
Leg 1 - Countries' Commitments	67%
Leg 2 - Countries' Capacity for Implementation	32%
Leg 3 - Countries' Implementation and Impact	45%

Table 1: Overall degree of compliance with CRPD ICT Accessibility provisions

As reflected in Table 1, countries responding to the surveys report that their average degree of compliance with CRPD ICT accessibility dispositions within their general legal and regulatory framework is 67 percent. Further, survey respondents indicate that their countries currently only possess on average 32 percent of the capacity to implement CRPD ICT accessibility dispositions. And, finally, survey respondents indicate that their average degree of implementation and impact in their countries with respect to select CRPD ICT accessibility dispositions reach an average of 45 percent.

In addition to descriptive statistical analysis of the responses, regression analyses were conducted on survey responses to identify potential opportunities for Improvement by CRPD ratifying countries. Critical success factors identified through regression analyses for significance include: (1) A government body specifically dedicated to persons with disabilities; (2) A systematic mechanism to involve DPOs working in the field of digital accessibility to the drafting, designing, implementation and evaluation of laws and policies; (3) Financial support for DPOs and NGOs working in the field of digital accessibility for persons with disabilities; (4) A forum for the active cooperation between NGOs working in the field of digital accessibility; (5) Laws, policies or programs that promote awareness-raising and training programs about the CRPD; and (6) Country participation to the work of international standards development organizations related to digital accessibility. Those findings can easily be translated in relatively easy policy steps by States Parties committed to improve ICT accessibility in their jurisdictions.

By drawing links between states' commitments and implementation/ impact on persons with disabilities and comparing data from various countries including from other international statistical sources, significant findings, benchmarks and opportunities for further progress have been derived from the G3ict Progress Report for a range of key stakeholders.

Key conclusions drawn from the analyses conducted indicate that: the sectorial programs promoting ICT accessibility implemented by CRPD ratifying countries could substantially benefit from a greater focus on the accessibility of their information infrastructure; there is an untapped opportunity to leverage high concentration of information infrastructure service providers (mobile, fixed telephony, broadcasting, e-government); the priority for international organizations should be to focus on building capacity for implementation, especially support and expertise for DPOs; and, international cooperation can be better leveraged in partnership with industry and the private sector.

Background

The U.N. General Assembly Ad Hoc Committee on a Comprehensive and Integral International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities (CRPD) was created in 2001. The Ad Hoc Committee finalized its work in its eighth session in August 2006, which completed the CRPD text for adoption by the General Assembly on 13 December 2006. The CRPD was opened for signature on 30 March 2007. It entered into force on 3 May 2008.

The CRPD is a targeted response to an overlooked Human Right and development challenge. About 15.3 percent [2] of the world's population or one billion persons live with some form of disability. Persons with disabilities tend to be acutely vulnerable to exclusion. Persons with disabilities are disproportionately poor and poor people are disproportionately disabled. Furthermore, there are an estimated 150 million children in the world with disabilities, about four-fifths of them in developing countries, and millions more live with parents or relatives with disabilities. [3] No society can ignore such a massive number of people and leave them on their own.

The CRPD is also a unified response to the fact that, although pre-existing human rights conventions offer considerable potential to promote and protect the rights of persons with disabilities, this potential was not being tapped. Persons with disabilities continued being denied their human rights and were kept on the margins of society in all parts of the world. In addition to these circumstances, persons with disabilities also felt that they have very little to say in plans and programs that are supposedly provided for their welfare, for the improvement of their conditions. The CRPD sets out the legal obligations on States to promote and protect the rights of persons with disabilities.

Since it entered into force on 3 May 2008, the CRPD has continued to maintain its initial momentum to attract agreement and support throughout the global community. This momentum is due in no small measure to the innovativeness of the CRPD in that it promotes the interdependence of all human rights. As of 14 July 2012, there were:

- 153 signatories to the CRPD;
- 90 signatories to the Optional Protocol since its opening for signature;
- 117 ratifications and accessions to the CRPD; and
- 66 ratifications and accessions to the Optional Protocol.

2. World Report on Disability, WHO-World Bank, 2010
3. EFA Global Monitoring Report 2010. Reaching the Marginalized. Paris/Oxford, UNESCO, Oxford University Press, 2010. http://www.unesco.org/en/efareport/reports/2010-marginalization

Introduction to ICT Accessibility in the CRPD [4]

"To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems..." (Art.9 of the CRPD)

Significance of ICT Accessibility for Persons with Disabilities and States Parties Obligations

The significance of ICT accessibility for persons with disabilities is best described by the language found in paragraph (v) of the Preamble of the Convention on the Rights of Persons with Disabilities ("CRPD"), which recognizes "the importance of accessibility to the physical, social, economic and cultural environment, to health and education and to information and communication, in enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms."

While the Preamble clearly defines accessibility as an enabler for persons with disabilities to exercise their rights, Article 3 (f) of the Convention also identifies accessibility as one of its eight "General Principles". Article 9 is dedicated to accessibility and stipulates: "To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas."

4. Data and analysis also available in the G3ict report submitted to the Committee on the Rights of Persons with Disabilities, 15 March 2012

Furthermore, Article 2 describes reasonable accommodation and the lack thereof as discrimination. In the case of information and communication technologies, because many accessibility and assistive solutions are available and already implemented, it can be inferred that the CRPD dispositions on reasonable accommodation apply in most cases. For example, an inaccessible web site may not allow persons with disabilities to obtain information or use a service on an equal basis with others. Yet, methods to create accessible web sites are well documented and if implemented correctly, do not cost more nor constitute a disproportionate or undue burden.

Therefore, while the CRPD does not define accessibility at large as a right, it carries language which establishes the accessibility of Information and Communication Technologies ("ICTs") as an obligation of States Parties and society at large. The notion that discrimination occurs when an ICT based service is inaccessible is consistent with emerging jurisprudence in the United States and the United Kingdom: inaccessible web sites or inaccessible ATMs for instance do constitute discrimination against persons with disabilities because equal access is not provided while it could.

The obligation to provide accessible ICT based products and services and ensure equal access is also reflected in many advanced policies and programs launched or promoted by States Parties around the world. Examples of such programs include (countries with good practices in parenthesis):

- Distribution of free equipment to deaf blind persons funded by a Universal Service Fund to give them access to communications (United States);
- Captioning or signing of television programs (implemented by 58 percent of the countries which have ratified the CRPD);
- Video description of television programs for the blind (Canada);
- Offering relay services for deaf and speech impaired users of telephony , implemented by 29 percent of the countries which have ratified the CRPD;
- Ongoing monitoring of web accessibility and compulsory remediation of all e-government web sites (Republic of Korea);
- Implementation of computer-based Assistive Technologies in schools and universities (53 percent of all States Parties to the CRPD have some level of implementation);
- Providing reasonable accommodation at the workplace with publicly funded support centers (United States);
- Developing resource centers to support rehabilitation professionals offering ICT based Assistive Technologies to persons with physical disabilities (Qatar); and
- Public procurement rules including ICT accessibility criteria (United States, European Union policy in development).

While the above list cannot be exhaustive in the context of this introduction, it confirms that States Parties have in many areas acknowledged and acted upon the obligation to provide equal access to information and communication technologies and services, setting benchmarks for what constitutes reasonable ICT accommodation for persons with disabilities.

Specific CRPD ICT Accessibility and Assistive Technologies Requirements

With the further implementation of the many articles of the CRPD with specific accessibility requirements, the principle of equal access will become ever more important as an increasing number of ICT applications deliver essential services in domains such as Access to Information (Article 21), Inclusive Education (Article 24) or voting procedures via electronic kiosks (Article 29). Table 2 summarizes the instances where the CRPD specifies accessibility requirements:

Application Areas	CRPD Article	Accessibility Dispositions with implications for ICTs	Reasonable Accommodation	Promoting Assistive Technologies
Non- discrimination	5		Y	
E-Government	9.2.a	Y		
Media and Internet	9.1, 9,2.g	Y		
Television	30.1.b	Y		
Private Sector Services	9.2.b	Y		
Liberty and Security	14		Y	
Living Independently	19			Y
Education	24	Y	Y	Y
Employment	27	Y	Y	
Political Rights	21, 29	Y		Y
Emergency Services	9.1.b, 11	Y		
Culture and Leisure	30.5.c	Y		
Personal Mobility	20			Y
Rehabilitation	2			Y

Table 2: Accessibility requirements specified in the CRPD

While most countries are generally aware of their basic obligation to implement ICT accessibility, many of the CRPD dispositions listed above are not translated into actual policies or programs. G3ict recommends the use of the "ICT Accessibility Self-Assessment Framework," a check list for States Parties to the CRPD, to identify gaps and prioritize policies and programs from which the present survey is derived. [5]

Input, Mandate and Competences of Various National Stakeholders for ICT Accessibility

Because ICT applications and services are pervasive in all sectors of society and of the economy, multiple actors are involved. G3ict recently measured the perceived relative responsibility of government and the private sector in implementing ICT accessibility by conducting a survey among 35 ICT accessibility policy experts equally distributed among various stakeholders. [6] The results are a good reflection of the complex mix of stakeholders responsible to implement ICT accessibility policies and programs:

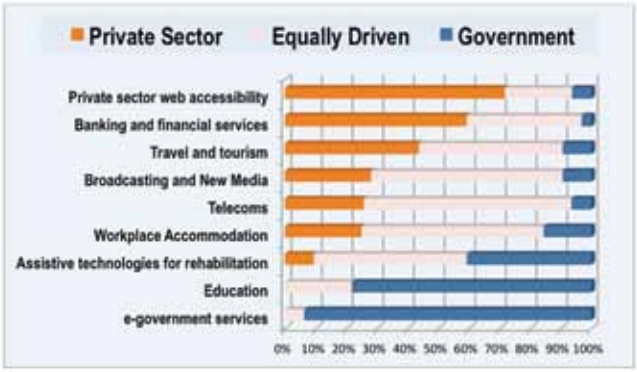

Figure 1: Mix of responsibilities for implementing ICT accessibility by sector of activity

The above results suggest that, because the mix of responsibilities varies considerably by application sector, policies should be sector specific rather than generic.

Figure 1 results also suggest that in most areas where shared responsibilities are identified, public-private cooperation is an essential success factor. Effective policies need to rely on a spectrum of measures to facilitate such cooperation, including public awareness campaigns, capacity building, incentives or regulations.

In all cases, the involvement of multiple stakeholders in defining policies and programs, and notably the involvement of organizations of persons with disabilities, are a critical success factor. Examples abound both in government and the private sector showing the positive impact of such an approach to policy and program development. [7] Unfortunately, the present report shows that 84 percent of States Parties to the CRPD do not have a systematic mechanism to involve DPOs working in the field of digital accessibility to the drafting, designing, implementation and evaluation of laws and policies.

Regulations are most effective when investments are required to provide accessibility (television, for instance) in order to establish a level playing field among private sector actors, or to ensure a fair and competitive environment (public procurement rules, for instance).

Among government agencies of States Parties, the following ministries or department are most involved in promoting and implementing ICT accessibility:

ICT Application Sector	Type of Technologies and Services	UN Affiliated Organizations
Telecom/broadcasting regulator	Fixed and Mobile Telephony	ITU
Education	Assistive Technologies and accessible education contents	UNESCO
e-Government services	All government entities	ITU, UNPAN
Labor/social affairs	Workplace Accommodation	ILO
Interior/homeland	Disaster preparedness, voting	UNDESA
Health	Technology for rehabilitation	WHO
Transportation	All automated interfaces and communications	International Civil Aviation Organization and Regional Economic Commissions
Public procurement	Centralized public procurement agency, all ministries	UNPAN

Table 3: List of main government entities involved in ICT accessibility by ICT application sector

5. http://g3ict.org/download/p/fileId_807/productId_147
6. Survey conducted for the DEEP Conference Program Committee in cooperation with OCAD University, Toronto, Canada (May 2012)
7. http://g3ict.org/resource_center/White_Paper_on_Accessibility,_Innovation_and_Sustainability_at_AT&T

Defining National Accessibility Standards and Monitoring Their Implementation

Article 9.2 of the CRPD stipulates that "States Parties shall also take appropriate measures to:

(a) Develop, promulgate and monitor the implementation of minimum standards and guidelines for the accessibility of facilities and services open or provided to the public." While this disposition should apply to ICT based services provided to the public, it does not mention products. And the term "facility" cannot apply to ICTs. However, to the extent that country reporting guidelines for States Parties to the CRPD do cover public procurement rules, the adoption by States Parties of accessibility standards for ICT products would be expected.

To date, few countries have actually developed national ICT accessibility standards. In fact, the present CRPD ICT Accessibility Progress Report indicates that 67.4 percent of States Parties do not define, promote or monitor any accessibility standards for ICTs while 73.3 percent of States do not define public procurement rules policy promoting accessible ICTs, which typically would require reference to standards.

This may be due to the fact that a large proportion of ICT products are developed and manufactured in a relatively small number of countries, while a majority of States Parties are importers of technology with limited local industry participation to address accessibility standards issues. It also reflects the fact that the pace of ICT innovations and of ICT accessibility is faster than typical standard development cycles which can take many years. For instance, ICT accessibility evolves with each specific operating system environment, such as Windows, Android or iOS, which keep adding features, user interfaces, functionalities and form factors, such as mobile and tablets, at an unprecedented pace. The ISO, ITU, IEC, W3C and DAISY Consortium are the main international bodies involved in ICT accessibility. Among the most widespread ICT accessibility standards are the Worldwide Web Consortium web accessibility guidelines, ISO standards, the DAISY and ePub standards, as well as telephony accessibility standards developed and promoted by the ITU.

One of the issues in developing "national" ICT accessibility standards is the potential risk of involuntarily fragmenting the global market for accessible ICTs. This, in turn, can reduce the positive impact of global economies of scale, raising the cost of devices for persons with disabilities and creating new barriers in interoperability, especially in relation to the use of Assistive Technologies. This may be the case, for example, of hearing compatibility standards with telephone handsets or the ability of screen readers to read web pages. It is therefore imperative that States Parties adopt and promote international standards to the greatest extent possible. For a detailed list of major sources of international ICT accessibility standards, one can consult: *www.e-accessibilitytoolkit.org/toolkit/international_cooperation/international_standards_development*

Besides the international Standard Development Organizations mentioned above, it is worthwhile pointing out the impact that public procurement rules will have in the future. Informal international coordination among the United States, the European Commission and a couple of other major IT markets is facilitating the de facto alignment of ICT accessibility standards across borders.

Most often, at the country level, telecom regulatory authorities and ICT ministries are the logical center of expertise for ICT standards among government agencies. Of paramount importance because they affect broad audiences are:

- Mobile accessibility standards;
- Web accessibility standards;
- Fixed telephony accessibility standards;
- Television accessibility standards; and
- E-book standards.

However, other areas of ICT accessibility which States Parties must consider are ATMs and mobile payments, electronic voting machines, public transportation automated kiosks, and electronic public signage.

In general, the major obstacle to deploy accessible ICT products and services standards is the severe lack of awareness and expertise about disability and accessibility in civil society and among information technology professionals and web producers: according to the present CRPD ICT Accessibility Progress Report, 80.4 percent of States Parties do not have mandatory training programs (at universities, vocational schools, etc.) for future professionals about digital accessibility for persons with disabilities. As a result, ICT vendors and organizations using ICTs experience difficulties in recruiting adequate personnel with ICT accessibility knowledge.

"80.4 percent of States Parties do not have mandatory training programs (at universities, vocational schools, etc.) for future professionals about digital accessibility for persons with disabilities."

Promoting Accessible Technologies

As specified by the CRPD, achieving equal access to ICTs requires promoting and supporting Assistive Technologies for persons with disabilities. Article 4.1 (g) requires States Parties "to undertake or promote research and development of, and to promote the availability and use of new technologies, including information and communication technologies, mobility aids, devices and Assistive Technologies, suitable for persons with disabilities, giving priority to technologies at an affordable cost."

Article 4.1 (h) also requires States Parties "to provide accessible information to persons with disabilities about mobility aids, devices and Assistive Technologies, including new technologies, as well as other forms of assistance, support services and facilities."

According to the present report, a majority of States Parties have policies and programs promoting Assistive Technologies in the context of special education services at school and universities, workplace accommodation and rehabilitation services.

1. **Education.** Article 24 promotes Inclusive Education, which implies that regular schools and classrooms must accommodate students with disabilities. As a reference, 13 percent of the students in K to 12 in the United States live with a disability, of which 5 percent have learning disabilities. A vast majority of those students can benefit from computer-based or tablet-based applications to read, communicate or obtain accessible textbooks. The benefits of Assistive Technologies are considerable as measured by students' achievements and completion of studies. Education is also a great place to teach young persons with disabilities how to design their own optimum ICT accessibility accommodations and how to request it outside the school including in the workplace.

2. **Workplace accommodation.** Article 27 specifies that Reasonable Accommodation must be provided to persons with disabilities. With an increasingly large number of jobs requiring interaction with ICTs, making the appropriate Assistive Technologies available to employers and employees alike is a condition to ensuring equal employment opportunities for persons with disabilities. Large multinational companies and governments in various countries have developed good practices demonstrating the low costs and considerable benefits of promoting Assistive Technologies among their employees.

3. **Rehabilitation centers and health care providers.** When persons acquire a disability during their lifetime, the likely opportunity to get familiar and trained to using Assistive Technologies will be in the context of a rehabilitation center or health care provider. Supporting those professionals is therefore a critical success factor in realizing the dispositions of the CRPD on the promotion of Assistive Technologies.

The Requirement for a Dependable Assistive Technologies "Eco-system"

Critical to the proper deployment of Assistive Technologies are the training and support of users and the maintenance of technology. This area is covered by the CRPD in its Article 4.1.i which requires States Parties to "promote the training of professionals and staff working with persons with disabilities." Without proper support resources, the deployment of Assistive Technologies and their effective adoption by persons with disabilities can only fail. In fact, from an investment standpoint, the cost of services, such as the distribution, training, support and maintenance of Assistive Technologies, is the largest expense to be considered. For instance, even if an Open Source screen reader, such as NVDA, is available free of charge for blind users of computers, minimum amounts of training and support are required to get a blind user who has never used a computer to become proficient with basic features and the commands of the screen reader and its interaction with various applications. This would be even more obvious in the case of a rehabilitation professional providing a customized solution with training and support to a person with paraplegia using various alternative input methods, including switches to use a computer.

Given the above observations, helping the development of an adequate national Assistive Technologies "eco-system," including skilled professionals, is an important objective for States Parties to the CRPD. This requires inter-ministerial agency coordination and cooperation with the private sector and education institutions since, as indicated above, Assistive Technologies are primarily deployed in the context of education, the workplace and rehabilitation services.

Mobile Developments

In the context of the CRPD's global reach, the recent expansion of the installed base of mobile devices worldwide needs to be mentioned. By the end of 2012, it is expected there will be more mobile devices in use than human beings on the planet. This expansion, while it presents challenges for persons with disabilities, also offers significant opportunities: the economies of scale of the mobile market are unprecedented; mobile platforms are highly standardized around few core technologies and operating systems and the increasing bandwidth and handset processing power now available open the door to an unprecedented creativity among developers of accessible and assistive applications and services for persons with disabilities.

"CRPD, Article 4.1.i requires States Parties to "promote the training of professionals and staff working with persons with disabilities."

However, while mobile accessible technology is available and applications for persons with disabilities are inexpensive or free, they are not necessarily reaching persons with disabilities. Best success has been identified when multiple stakeholders, including telecom regulators, service providers and organizations of persons with disabilities, work together to address the issue. While considerable potential exists to leverage mobile applications and services for persons with disabilities, only 30 percent of the countries surveyed have policies or programs to promote those.

Treaty Implementation and the G3ict CRPD ICT Accessibility Progress Report

The G3ict CRPD ICT Accessibility Progress Report (2nd edition) is uniquely suited to address key aspects of treaty implementation. The G3ict CRPD Progress Report identifies the degree to which each of the dispositions of the CRPD on accessible ICTs and Assistive Technologies is actually enacted in local laws, policies and regulations and their impact. It includes 57 data points relative to the status of ICT and AT accessibility for each country surveyed. Data is collected and presented within the following three clusters of data points:

- State Party CRPD legal and programmatic commitments;
- State Party capacity for implementation;
- Assessment of the State's implementation and actual results for persons with disabilities.

By drawing links between States' commitments and implementation/ impact on persons with disabilities and comparing data from various countries including from other international statistical sources, significant findings, benchmarks and recommendations may be derived from the G3ict CRPD ICT Accessibility Progress Report for policy makers, international institutions, business and industry, non-governmental organizations, disabled persons organizations, and others.

Results may be used by ratifying countries in order to improve their compliance with the CRPD. For example, governments may use the results to improve the consultation and participation process of Non-Governmental Organizations (NGOs) to the development and implementation of legislation. States could also use CRPD results to request targeted training and support from their Institutions of Higher Education (IHE).Those IHEs could provide training to government entities on critical ICT and AT issues in which the country was deemed to be out-of-compliance.

The data may also be used by international bodies as a baseline against which those bodies can estimate or judge, in part, the adequacy and focus of their own CRPD responsibilities and commitments. International organizations can use the data to foster international cooperation and monitor existing needs for ICT and AT accessibility in communities. For example, UN agencies such as UNESCO, ILO, ITU or WHO in their role of providing technical assistance may use the data to identify policies and programs required by the CRPD and determine how to best engage its Member States in the implementation of those policies.

On a regional level, DPOs and NGOs can also use the data to gauge the lack of CRPD compliance by governments in order to raise the awareness of the challenges and opportunities of ICTs and ATs for persons with disabilities and facilitate the sharing of lessons learned, good practices, tools and products. Results could also help DPOs and NGOs to determine which actions need to be taken to facilitate the implementation of the CRPD.

"Significant findings, benchmarks and recommendations may be derived from the G3ict CRPD ICT Accessibility Progress Report for policy makers, international institutions, business and industry, non-governmental organizations, disabled persons organizations, and others."

Methodology

The G3ict Research Committee reviewed the text of the CRPD to identify all provisions that include the terms: Communications, technology, information or information services, accommodation, and access, accessible, and accessibility because Article 9 includes ICTs in its definition of accessibility. Through its analysis, G3ict identified 17 instances of the word "access" or "accessible" or "accessibility" and seven instances of the words "reasonable accommodation" in the text of the CRPD.

Furthermore, in October 2009, the United Nations Secretary-General issued guidelines on the treaty-specific reporting document to be submitted by State Parties under Article 35, paragraph 1, CRPD (CRPD/c/2/3). G3ict identified 52 instances of the word "access" or "accessible" or "accessibility" and five instances of the words "reasonable accommodation" in the text of the Guidelines CRPD/c/2/3.

Once identified, the Committee created an exhaustive listing which included the above provisions redrafted as "audit" items (N=50 items out of which 35 items were selected as variable components) and which also called for an evidentiary justification for the score given for every item. This has been referred to as the Leg #1 audit tool.

Next, the Committee created a second set of measurement scoring tool (N= 12 items), which were perceived to be directly related to the ICT provisions of the CRPD identified for the Leg #1 assessment, and which were perceived as representing the basic capacity of a country to implement the ICT provisions of the CRPD. This has been referred to as the Leg # 2 audit tool.

Finally, a third measurement scoring tool (N= 10 items) was created in order to represent the systemic and/or individual impact(s) of a country's fulfillment of the ICT provisions of the CRPD. This has been referred to as the Leg #3 audit tool.

The variables and items ultimately used to construct the G3ict CRPD ICT Accessibility Progress Report are a subset of those items contained in the three (3) audit tools described previously. Its methodology is based on 11 variables aggregated from 57 data points measuring: (1) Country commitment to a Digital Accessibility Agenda, (2) Capacity to implement it, and (3) Actual implementation and results.

The Committee used the variables and items to create two sets of questionnaires. The survey framework was developed in a way consistent with the United Nations Development Program guidelines on Human Rights reporting (structure, process, and outcome).

The two sets of questionnaires were completed by over 104 local correspondents in 52 countries during the second semester of 2011 and the first semester of 2012. The list of participating countries can be found in Annex 1. The 52 countries surveyed have a combined population of 5.3 billion, meaning that the 2012 Index covers 77.4 percent of the world population. While the 2012 questionnaire remains the same as in 2010, several questions were added in 2012 addressing: (a) levels of implementation; (b) awards given; and (c) types of accessible TV services.

"Its methodology is based on 11 variables aggregated from 57 data points measuring: (1) Country commitment to a Digital Accessibility Agenda, (2) Capacity to implement it, and (3) Actual implementation and results."

Data collection for the second edition of the G3ict ICT Accessibility Progress Report has been completed in cooperation with Disabled Peoples' International (DPI), G3ict participants, and various local Disabled Person's Organizations and experts in countries where DPI did not have respondents available. Two questionnaires created in multiple languages were sent to legal and accessibility experts in each country.

It was suggested to panels of in-country respondents to rely on local assessment teams to complete a formal questionnaire review, in most cases with the assistance of a local lawyer or expert with a mastery of the country's laws, or preferably someone with experience working on issues involving persons with disabilities - e.g., representative DPO leaders. An in-country assessment team ensures a good deal of objectivity in the results by its reliance on an evidence-base to justify answers to the questionnaire.

Africa	Americas	Asia-Pacific	Europe	Grand Total
14	7	15	16	52
27%	13%	29%	31%	100%

Very High Human Development	High Human Development	Medium Human Development	Low Human Development	Grand Total
16	12	11	13	52
31%	23%	21%	25%	100%

High Income Economies	Upper-Middle Income Economies	Lower-Middle Income Economies	Low Income Economies	Grand Total
15	17	9	11	52
29%	33%	17%	21%	100%

Table 4: Breakdown of countries which responded to the CRPD Progress Report Survey in 2011-12

2012 CRPD Progress Report Results

This chapter presents the results captured by the two sets of surveys completed by panels of respondents in 52 countries. These results provide an overall view of the commitments and implementation by the surveyed countries in relation to the CRPD. In order to have a better understanding of the results obtained, data have also been analyzed through cross-tabulations. The cross-tabulated results make it possible to draw links between the level of implementation and compliance of a ratifying country with its human development and economic situation. This chapter first depicts and analyzes the overall results including those across the three Legs of the survey, as well as the results for the variables and data points within the three Legs. The second part of this chapter develops the results obtained through cross-tabulations.

Overall Results and Results for Legs #1, #2 and #3

Overall Countries' Compliance Results	Yes
Countries' Commitment	67%
Countries' Capacity for Implementation	32%
Countries' Implementation and Impact	45%

Table 5: Overall degree of compliance with CRPD ICT accessibility provisions

Leg #1: Countries' Commitments	Yes
General Legal and Regulatory Framework	85%
Policies Covering Specific ICT Application Areas	82%
Policies Covering Information Infrastructure	53%
Policies Covering Specific Target Groups	53%
Policies to Promote Accessible and Assistive ICTs	29%

Table 6: Degree of compliance of country legislations and policies with CRPD ICT accessibility provisions

Leg #2: Capacity for Implementation	Yes
Government Focus	40%
Support of DPOs and NGOs	24%
Capacity Building	35%

Table 7: Degree of compliance of country capacity to implement CRPD ICT accessibility provisions

Leg #3: Actual Implementation and Impact	Yes
Accessible Telecom and Media Services	38%
Accessible Features for Computers	51%
Specific ICT Products and Services	57%

Table 8: Degree of implementation of CRPD ICT accessibility provisions and impact

Countries' Commitment to the CRPD

General Legal and Regulatory Framework

Results concerning the general legal and regulatory framework among States Parties include satisfactory elements with 100 percent of the countries surveyed responding that they have in place a designated focal point within government for matters relating to the CRPD and a framework for implementing and monitoring the CRPD, although respondents' subjective assessments among all countries show either a partial (42 percent) or minimum (58 percent) level of implementation.

Bangladesh, for instance, has implemented a good policy in this respect, but it is still at an early stage of implementation. As the respondent mentioned, "Our government has nominated focal persons for PWDs in all ministries. However, they do not clearly know their role and responsibility for PWDs. Bangladesh 'Protibandhi Kallyan Somity' (BPKS, a disability NGO) tries to accommodate and advise them in different programs to better assist persons with disabilities."

Furthermore, 80 percent of the ratifying countries have a constitutional article, law or regulation defining the rights of person with disabilities which is an encouraging result. As per the Belgian respondent, "Belgium ratified the Convention on the Rights of Persons with Disabilities on August 1, 2009. Equal rights for persons with disabilities are guaranteed in the Belgian Constitution (Articles 10 and 11). Besides constitutional protection, there is a wide range of legislation related to the rights of persons with disabilities." The respondent from Malawi stated that, "The constitution prohibits discrimination against disabled people. There is also in place a 'Disability Bill' to enforce the 'National Disability Policy' formulated by Ministry for Persons with Disability and the Elderly, and the Malawi Council for the Disabled."

Several countries are in the process of taking further steps. For instance, the Indian respondent mentioned that, "There is no mention of persons with disabilities in the Constitution. However, there is a disability legislation titled 'The Persons with Disabilities Act 1995.' This is presently in the process of being amended and there is a draft for the 'Rights of Persons with Disabilities Bill 2011' available on line."

About 71 percent of the countries also reported they have laws, policies or programs to ensure that persons with disabilities and their representative organizations are consulted in the development and implementation of legislation. As the Belgian respondent added, "In every governmental level, persons with disabilities and their representative organizations are involved and represented in a structural way in the political process about disability (see also points 9 and 175 of the Belgian report on the UNCRPD)."

According to the New Zealand respondent, "The 'New Zealand Sign Language Act of 2006' has a requirement that it be reviewed and deaf people need to be consulted. The review has just been completed and will soon be available on the Office for Disability Issues web site."

On the other hand in Bangladesh, very few laws, policies or programs ensure persons with disabilities' participation or consultation in general. Recently, three different disability organizations (BPKS, NADPO and WDDF) have been working with the government in the consultation committee for the 'National Advancement Policy for Women,' and the 'National Education and Child Policy.' These policies incorporate PwDs rights as well.

Laws, regulations and policies enacted by States Parties	
Does your country?	**Yes**
Have a designated focal point within government for matters relating to the CRPD and a framework for implementing and monitoring the CRPD	100.0%
Have a constitutional article, law or regulation defining the rights of persons with disabilities?	80.0%
Have laws, policies or programs to ensure that Persons with disabilities and their representative organizations are consulted in development and implementation of legislation	71.4%
Promote access for Persons with disabilities to information and communications technologies and systems, including the Internet	61.4%
Facilitate access by Persons with disabilities to quality mobility aids, devices, Assistive Technologies and forms of live assistance	56.8%
Have a definition of "Reasonable Accommodation" included in any law or regulation regarding the Rights of persons with disabilities	54.5%
Ensure that government communications to the public using ICTs are provided in accessible formats, sign language or Braille	53.3%
Have laws, policies or programs that promote awareness-raising and training programs about the CRPD	44.4%
Have a definition of accessibility which includes ICTs or electronic media in the country laws or regulations	36.4%
Provide services to the general public, including through the Internet, in accessible and usable formats for Persons with disabilities	35.6%
Define public procurement rules policy promoting accessible ICTs	26.7%

Table 9: Degree of compliance of the general legal and regulatory framework of States Parties with the CRPD

Meanwhile, significant gaps remain to establish a general legal foundation to specifically promote ICT accessibility:

- Only 36 percent of surveyed countries have a definition of accessibility which includes ICTs or electronic media in the country laws or regulations compliant with the definition of accessibility in Article 9 of the CRPD.
- While 71 percent of the countries have dispositions to consult persons with disabilities at large, only 16 percent do have a mechanism to involve the DPOs for the designing, implementation and evaluation of laws, policies and programs regarding ICT accessibility.

This area clearly requires much attention in order to establish a solid foundation for the ongoing development of ICT Accessibility policies and programs.

Policies Covering ICT Accessibility in Specific Areas

In regard to policies covering specific areas, education appears to be among the most frequent areas for ICT accessibility government programs. About 55.3 percent of the countries surveyed reported that they have in place regulation that promotes programs for Policies in Primary and Secondary Education.

The U.K. respondent pointed out that, "In order to have special needs covered - and to provide pupils with disabilities the accessibility they need - it is crucial to have local authorities involved as well." The Nepali respondent stated that there is much to do in this respect, "The Department of Education has a program in place in conjunction with NGOs to provide digital talking secondary level textbooks to students, but the coverage is still inadequate."

Policies Covering ICT Accessibility in Specific Areas	Yes
Primary and Secondary Education	55.3%
Rehabilitation Services	53.3%
Reasonable Accommodation at Workplace	53.2%
Higher Education	52.2%
Community Services	44.4%
Independent Living	43.5%
Emergency Response Services	38.3%
Voting systems	37.0%
Health Services	29.5%
Judicial Information and Legal Procedure	25.6%

Table 10: Degree of compliance of States Parties with the CRPD for policies covering ICT accessibility in specific areas of activity

The Indian respondent stated, "India has a well-defined government structure to integrate children with disabilities in their educational system. The 'National Policy on Education' (1986) and 'The Plan of Action' (1992) provided for special schools with hostels, training for teachers and support staff, vocational training and inclusion as far as possible of students with disabilities into mainstream schools." The Italian respondent mentioned, "Ordinary schools where all students with disabilities are educated provide the necessary tools to support them. This is regulated by 'Decree 30.4.2008' that defines rules for technological devices in schools."

The New Zealand respondent mentioned, "Disabled students are able to access funding for equipment and human support throughout their education. This is a government-funded program and will vary according to the students' impairment and level of support needed. Government spending on special education, not including separate tertiary education expenditure, is approximately $460 million, with special education services including assistive technology services such as computer hardware and software, vision equipment, specialized seating, tables and hearing devices."

Higher education is another important area among surveyed countries. About 52.2 percent of the countries have regulation to promote the use of accessible and Assistive Technologies in higher education. Russia's experience shows that there is still much potential for improvement in this sphere: Russian institutions or universities partially count on access to digital and information technologies for students with disabilities, but do not provide special conditions for separate groups of students, such as deaf or blind students. However, policies and programs are in place in several countries. In New Zealand, the respondent mentioned that the Government has funding available to support disabled students with equipment, readers or interpreters during their part-time or full-time study. This is administered by Workbridge, a not-for-profit employment service for persons with disabilities. Italy and Qatar have in place a provision of assessment, technology and training to students with disabilities at universities. Several European countries and the United States have similar policies in place with various degrees of implementation.

Rehabilitation services also are a key point for surveyed countries. About 53.3 percent of the countries reported that they have implemented policies to provide the use of assistive technology in rehabilitation services. Indonesia is an example to share showing a substantial level of implementation in this matter. As the respondent stated, "Sanitary services provide hardware and software for persons with disabilities that need a computer for communication."

Kenya has in place the 'People with Disability Act' (PWDS Act 2003) that requires assistive devices and services meaning implements, tools and specialized services - including the services of qualified interpreters for the deaf and qualified teachers for the blind - be provided to persons with disabilities to assist them in education, employment or other activities.

New Zealand is also an example to share in this regard. As stated by the respondent, "The Ministry of Health funds the health and rehabilitation services for disabled persons other than by injury through accident. Funding is provided to eligible people based on an assessment of their needs and the most cost effective solution is identified to meet their needs. For people with communication needs, equipment may range from basic communication boards to complex digital devices which may use wireless technology to connect to the Internet. Complex powered wheelchairs are provided for eligible people. New Zealand Sign Language Interpreter Services are provided to enable deaf persons to access health and disability support services and information so that they are fully informed of their rights and responsibilities."

Reasonable accommodation at work is another area of interest for ratifying countries surveyed. About 52.3 percent of the countries reported that they have implemented policies to cover the use of assistive technology at work. The Italian respondent shared the laws the country has in place to promote ICT accessibility, "The 'Law 68/1999' reserve quota of employment for persons with disabilities in the private sector based on the size of the company. The adaptation of the workplace is required as well. In addition, the 'Law 216/2003' protect against discrimination employee with disabilities." In Qatar, Mada Center (a non-profit organization that empowers and enables persons with disabilities through the greater use of ICT) is charged to support employees with disabilities, including a pilot project for home-working employees.

In this respect, it is important to mention the programs that many Latin American countries have deployed to improve working conditions for persons with disabilities. The Peruvian respondent shared an important study about teleworking for labor inclusion of persons with disabilities. It analyzes the social and labor situation and profile of persons with disabilities in nine Latin American countries concluding that ICT training and teleworking are really an alternative for their inclusion in the workforce and that millions of people might benefit of it.

The Brazilian respondent mentioned that, "Implementation has been very inconsistent across regions and across different types of disabilities. Even in the few states and cities where local governments have become more strict about enforcing employment quota requirements in large companies, it remains a significant obstacle in the unwillingness to employ persons with disabilities outside of stereotypical job posts (e.g., blind and wheelchair users in call centers), and obstacles in public transportation and education faced by persons with disabilities also result in a fairly reduced percentage of qualified potential employees." New Zealand approaches this through an agency funded by the government to provide funding for technical and human support for disabled employees and trainees. It also provides funding to cover disability-related costs when establishing a business, and to adapt the work environment to accommodate the disabled employee when necessary.

Survey results indicate significant gaps concerning policies covering ICT accessibility in other specific areas while some countries have in place relevant policies and programs.

For **emergency response**, the case of New Zealand's efforts is applicable to many countries that are vulnerable to earthquakes and tsunamis as well. The Civil defense authorities are encouraged to assess and mitigate likely impacts on persons with disabilities in their planning and in responding to emergencies. In Italy, the Fire Department of the Presidency of Council of Ministers has edited in 2003 'The Rescue of Persons with Disabilities during Emergency' and has issued 'The Guidelines in Emergency in the Workplace for persons with Disabilities.'

On the other hand, there are countries that mentioned the lack of accessible technology for persons with disabilities in some areas.

Regarding the accessibility of **judicial information and legal procedure**, 75 percent of ratifying countries have no program in place to ensure that they are accessible. The Russian respondent mentioned that, "Justice and district courts do not ensure accessibility for persons with disabilities." The Swedish respondent also stated that there is still much do to in this respect "all judicial information should be provided in an accessible format. Persons with communication disabilities have problems to act as jurymen as materials of court cases are not provided electronically or in an accessible format."

Concerning the accessibility of **voting systems**, the Indian respondent reported that, "There have been efforts in recent elections to provide a blind voter the possibility to vote with Braille. However, this benefit does not reach visually impaired persons who do not know Braille or persons with other disabilities that might need assistance as well."

Subjective Assessment by Panel Respondents of Levels of Implementation of Policies Covering ICT Accessibility in Specific Application Areas

The 2012 questionnaire included scales for respondents to provide their personal assessment of the level of implementation of policies covering ICT accessibility in specific areas. While no independent measurement exists in most countries, this measure, while subjective in nature, gives an indication of the gaps that exist between the enactment of CRPD compliant policies and their actual implementation.

Are there any dispositions among Country laws, regulations or government supported programs promoting digital accessibility, the use of ATs or provisions for reasonable accommodations in the following areas?	No	Minimum	Partial	Substantial	Full
Judicial Information and Legal Procedure	74.4%	9.3%	9.3%	4.7%	2.3%
Health Services	70.5%	6.8%	13.6%	9.1%	0.0%
Voting systems	63.0%	10.9%	13.0%	10.9%	2.2%
Emergency Response Services	61.7%	12.8%	12.8%	8.5%	4.3%
Independent Living	56.5%	21.7%	10.9%	10.9%	0.0%
Community Services	55.6%	17.8%	13.3%	13.3%	0.0%
Higher Education	47.8%	26.1%	17.4%	8.7%	0.0%
Reasonable Accommodation at Workplace	46.8%	19.1%	17.0%	17.0%	0.0%
Rehabilitation Services	46.7%	20.0%	15.6%	17.8%	0.0%
Primary and Secondary Education	44.7%	27.7%	23.4%	4.3%	0.0%

Table 11: Subjective assessment by country experts of the degree of implementation of laws and regulations promoting digital accessibility, the use of Assistive Technologies or provisions for reasonable accommodation in specific application areas

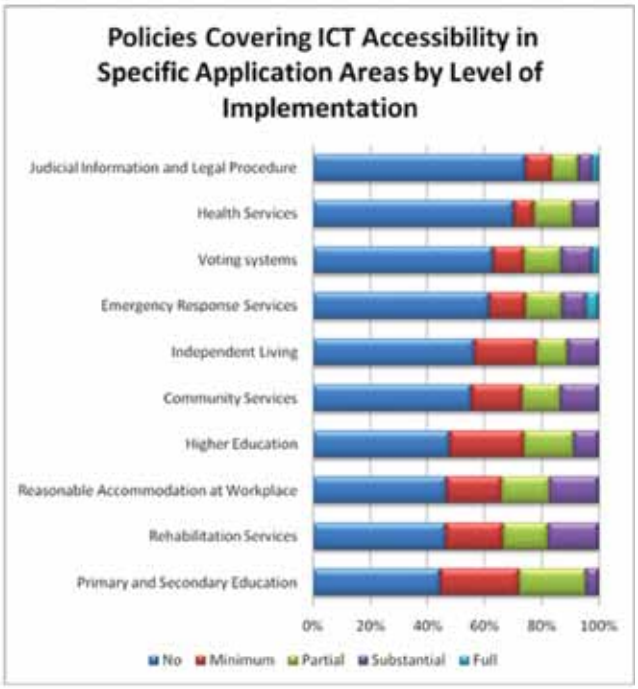

Figure 2: Graphic summarizing the subjective assessment by country experts of the degree of implementation of laws and regulations promoting digital accessibility, the use of Assistive Technologies or provisions for reasonable accommodation in specific application areas

The above table and graph shows that the most progress achieved by States Parties in implementing accesible and assitive solutions are in education, rehabilitation services and in support of reasonable accommodation at the workplace. However, for most application sectors, full or substantial implementation levels are only achieved by a small number of countries.

Policies Covering Accessibility for Specific ICT Products or Services

One of the most critical areas of ICT accessibility with the greatest impact on the largest number of persons with disabilities, the accessibility of the information infrastructure of ratifying countries, is lagging behind general commitments in support of the rights of persons with disabilities.

Are there any dispositions among Country laws, regulations and government supported programs promoting digital accessibility, the use of ATs or provisions from reasonable accommodations in the following areas of ICT products and services?	Yes
Television	65.9%
Web Sites	61.7%
Transportation Public Address Systems and Services	40.9%
Fixed line Telephony	37.8%
Digital Talking Books	37.8%
ATM or Kiosks	31.1%
Wireless Telephony	30.4%
Public Building Displays	25.6%
Copyrights Exceptions	25.6%

Table 12: Degree of compliance of States Parties with the CRPD for policies covering accessibility for specific ICT products or services

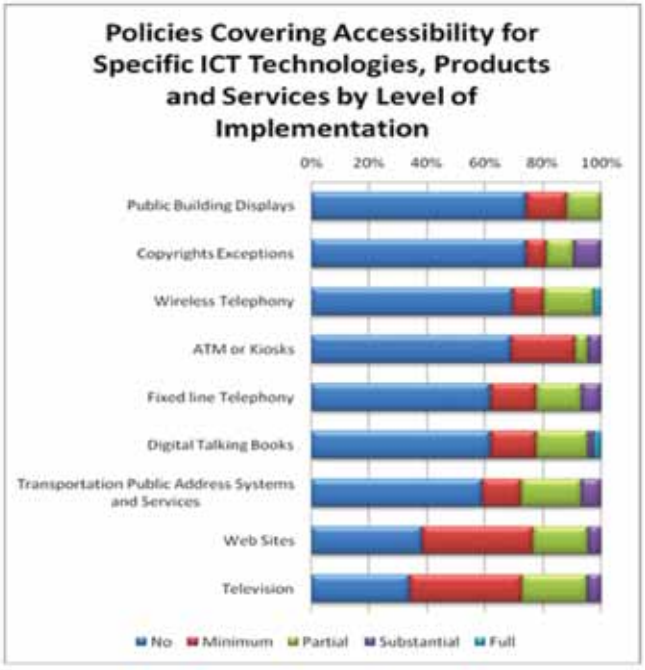

Figure 3: Graph showing the degree of implementation for specific ICT technologies, products and services

"One of the most critical areas of ICT accessibility with the greatest impact on the largest number of persons with disabilities, the accessibility of the information infrastructure of ratifying countries, is lagging behind general commitments in support of the rights of persons with disabilities."

Television is one area where progress is notable since 65.9 percent of the countries surveyed mention having policies in place. However, as can be seen below, actual levels of implementation are low. In Nepal for instance, improvement is still needed. As stated by the Nepali respondent, "There is only half hour news in sign language caption per week, Saturday at 1:00 P.M." On the other end of the spectrum, in France "since February 12, 2010, it is mandatory to have accessible TV programs for deaf persons and audio description has to be provided. A national body (Conseil Supérieur de l'Audiovisuel) monitors the effective application." New Zealand also shows a high level of implementation concerning TV features. The New Zealander respondent pointed out, "New Zealand has a government entity called 'On Air' that provides funding of public broadcasting content across television, radio and new media platforms. This fund of approximately $4 million annually is intended for disability-related services including television captioning services and disability interest programming." In Honduras, the government ensures that sign language interpretation is available when important information and decisions need to be transmitted to the country. Additionally, private TV broadcasters provide this service. The Swedish respondent reported that, "Not all news is provided in sign language, only those broadcasted on state channels, not on the private ones. Blind persons have been asking for more than 25 years for audio description without any success yet."

About 61.7 percent of the countries have **accessible web sites**. It is a positive sign that the importance of the accessibility of web sites be recognized by governments and policymakers. For instance, the Romanian respondent reported that the "Ministry of Communications and Information Society (www.mcsi.ro) has elaborated a guide for web sites, applicable to all local and central authorities, but this is not always implemented." In Spain, as of December 31, 2008 government web sites are required to be accessible. In addition, all web sites subsidized by public funds or institutions and organizations that provide relevant services for the Spanish people are required to be accessible as well. In Peru, enforcement is still needed. As stated by the Peruvian respondent, "Despite the 'Law 28530' for Internet access enacted five years ago, the government has not properly incorporated the accessibility criteria; therefore, more than 80 percent of the information is not available in an accessible format."

On the other hand, the Brazilian respondent stated that, "No fees or other forms of punishments are defined for any entity using inaccessible online services. Government sites tend to be fairly accessible; however, the vast majority of commercial sites and private sites in general have significant accessibility barriers. Finally, accessibility is not defined - i.e., there is no specification determining that a site should follow W3C standards to be considered accessible."

Only 40.9 percent of the countries surveyed reported that they have regulation for programs or policies promoting ICT in **Transportation Public Address Systems**. In many countries, there is still significant improvement needed to develop a policy framework for transport systems and to implement access features. The Swedish respondent mentioned that, "In Stockholm people can call for a guide half an hour in advance. A designated person can help disabled people to change route or lines." In another example, reported by the Belgian respondents, "Subsidies for customized transport services door-to-door for people unable to access regular public transportation are provided."

About 37.8 percent of the countries reported policies in place to promote accessibility for **Digital Talking Books**. The Swedish respondent stated, "Sweden has a useful library system in place regulated by law. It has a national library called TPB (Swedish Library for Talking Books and Braille) for both digital talking books and Braille. Books are available on demand for students and/or can be ordered from any local library. It is a service free of charge available to everybody." In Qatar, Mada Center is supporting the availability of DAISY Talking Books in English and Arabic via Bookshare (Bookshare.org). It is also funding the creation of conversion tools with commercial developers.

Only 25.6 percent of the ratifying countries however, reported having **copyright legislation** promoting the accessibility of published works. An example to share is the French experience with a substantial level of implementation. As stated by the French respondent, "Publishers must provide files used for book production on demand to accredited organizations in order to produce adapted books (Braille, audio, digital)."

Among striking gaps are the lack of policies and programs covering **mobile telephony** with 69.6 percent of ratifying countries mentioning that they have none. This is an area of great opportunity given the fact that many solutions and good practices exist in this field that can be replicated around the world.

About 31.1 percent of the countries have reported to have **accessible Automated Teller Machines (ATMs)**. There is still much to do in this respect. The Russian respondent stated, "After communication with bankers and discussion at various conferences, it's possible to say that in the next years in this segment nothing will change because the financial sphere is not interested in persons with disabilities as potential clients." In Spain, accessible ATMs will be regulated once 'Law 51/2003' is approved. This law will cover the basic conditions needed for full accessibility and for the use of public good and services. In this respect, it is relevant to emphasize alternative to legislation and the role of DPOs. For example, the New Zealand government has no laws, policies or programs in this area. However, as a result of lobbying from the vision impaired community, banks have become aware of access issues to ATMs. Some banks have installed software to make their ATMs speak. In Sweden, this is not regulated by law, but some banks have done this after hard pressure from DPOs. In the United Kingdom, only 69 banks have accessible ATMs.

However, RNIB (Royal National Institute of Blind People) is campaigning to reverse this situation. Some major banks will have part or all of their ATMs accessible with text-to-speech output within the coming two years.

Concerning the accessibility of **fixed line telephones**, there is still a significant gap, because only 37.8 percent of the countries reported to have accesible lines or relay services. The Italian respondent mentioned that, "Italy allows blind persons to have 90 hours/month free of access to the Internet to place telephone calls. In addition, deaf persons can have a special phone with a visual display."

Subjective Assessment by Panel Respondents of Levels of Implementation of Policies Covering Accessibility for Specific ICT Products or Services

The 2012 questionnaire included scales for respondents to provide their personal assessment of the level of implementation of policies covering ICT accessibility of information infrastructure. While no independent measurement exists in most countries, this measure, while subjective in nature, gives an indication of the gaps that exist between the establishment of CRPD compliant policies and their full implementation.

Are there any dispositions among Country laws, regulations and government supported programs promoting digital accessibility, the use of ATs or provisions from reasonable accommodations in the following areas of ICT products and services?	No	Minimum	Partial	Substantial	Full
Public Building Displays	74.4%	14.0%	11.6%	0.0%	0.0%
Copyrights Exceptions	74.4%	7.0%	9.3%	9.3%	0.0%
Wireless Telephony	69.6%	10.9%	17.4%	0.0%	2.2%
ATM or Kiosks	68.9%	22.2%	4.4%	4.4%	0.0%
Fixed line Telephony	62.2%	15.6%	15.6%	6.7%	0.0%
Digital Talking Books	62.2%	15.6%	17.8%	2.2%	2.2%
Transportation Public Address Systems and Services	59.1%	13.6%	20.5%	6.8%	0.0%
Web Sites	38.3%	38.3%	19.1%	4.3%	0.0%
Television	34.1%	38.6%	22.7%	4.5%	0.0%

Table 13: Subjective assessment by country experts of the level of implementation of policies covering accessibility for specific ICT products or services

Subjective assessments of the actual implementation of policies and programs promoting the accessibility of the information infrastructure reflect one of the most severe gaps in the area of ICT accessibility among ratifying countries. Table 13 shows that substantial or full implementation in mentioned in less than 10 percent of all countries across the board. This observation calls for objective in-country measurements to be developed by States Parties. Without those, progress will continue to be difficult to measure for both policy makers and advocates.

Policies Covering Specific Target Groups

General results concerning policies covering specific target groups prove that target groups are not a priority for States Parties developing ICT accessibility policies. There are still considerable gaps in this respect. Comparatively speaking, countries have implemented more policies and programs to cover children than elderly persons or women.

% of Ratifying Countries with Policies Covering Specific Target Groups	Yes
Children	41%
Elderly Persons	25%
Women	14%

Table 14: Percentage of countries with policies covering specific target groups

About 41 percent of the countries reported they have policies covering **children**. The Indian respondent mentioned, "There is a general provision in the 'Persons with Disabilities Act' stating that appropriate governments should provide facilities and services for children to be able to study. Unfortunately, it is not enforced since all the states are entitled to act within their economic limits and ignoring, therefore, their obligation towards persons with disabilities." In Spain, the law does not specifically mention digital accessibility. However, it states that education for children must be inclusive avoiding discrimination and promoting equal opportunities. It should provide the corresponding tools to have accessible formats for those students with special needs.

Only 14 percent of the countries have in place policies for **women**: the Spanish respondent reported that the current legislation includes a description for gender impact, but it does not specify precise measures for women with disabilities.

Only 25 percent of the countries have implemented policies to cover **elderly persons**. Countries with a very high human development level have 64 percent of compliance, countries with a high level of human development 20 percent, and medium and low human development countries have no compliance at all. Because the population is aging and the life expectancy has increased during the last decades, it is significantly important to address this subject in medium and low human development countries. According to the United Nations data, the elderly world population increases at a higher rate than other age groups. Using moderate population projections from 1998, the percentage of the world population under the age of 15 will decrease from 31 percent to 17 percent in the period of 1995 to 2050. During the same period, the share of the world population aged 60 or older will increase from 9 percent to 30 percent.

Policies to Promote Accessible and Assistive ICTs

Does your country through its laws, regulations, policies or programs?	Yes
Promote research and development of universally designed (UD) goods	34.8%
Define, promote and monitor accessibility standards for ICTs	32.6%
Promote the incorporation of accessibility features at an early stage of new product development	20.0%

Table 14: Percentage of countries with policies covering specific target groups

As Table 15 shows, policies to promote Universal Design or accessible and Assistive Technologies are not in place in more than two- thirds of the countries. This situation may be influenced by the concentration of Research & Development (R&D) and production capabilities of ICT products in a limited number of countries. These results, nevertheless, reflect a lack of focus of States Parties on important dispositions of Article 9 of the CRPD in relation to addressing the root causes of the inaccessibility of many ICT products and services.

For instance, as reported by the Turkish respondent, "The 'Disability Council I and Disability Council III' have made recommendations to promote the incorporation of accessibility features at an early stage of new product development. However, the Government program and the Action Plans of the Governmental Institutions made no reference to those recommendations."

Less than a third of ratifying countries define, promote and monitor accessibility standards for ICTs. This situation makes it difficult for States Parties to establish public procurement policies, as well as to develop economies of scale for accessible and Assistive Technologies government programs and related in-country expertise and support.

Capacity of Countries to Implement

The survey measured three aspects of countries' capacity to implement: Government focus, Support of DPOs and NGOs, and Capacity Building activities.

Government Focus

A high percentage of the countries surveyed (82 percent) have a government body specifically dedicated to persons with disabilities and 62 percent of the countries reported that they have a government body solely dedicated to ICTs. Although these are encouraging results, data also suggest that many countries' capacity to implement is still low due to their lack of actual focus on ICT accessibility reflecting that:

- 18.8 percent of countries only have a systematic review mechanism of the existing legislation and/or policies concerning digital access;
- 4.4 percent of countries have either statistics or data accessible for the general public about digital access by persons with disabilities. With no measurement available in most countries, driving policies and programs effectively is not possible; and
- 31 percent of countries only have government funds allocated to programs in support of digital accessibility.

In your Country, are there?	Yes
A government body specifically dedicated to Persons with Disabilities	82.2%
A government body specifically dedicated to Information and Communication Technologies	62.2%
Any government fund allocated for digital accessibility	31.0%
A systematic review mechanism by the Country of the existing legislation and/or policies concerning digital access	18.2%
Either statistics or data accessible for the general public about digital access by persons with disabilities	4.4%

Table 16: Government focus – Percentages of countries with policy processes in place

Support of DPOs and NGOs

In your Country, are there?	Yes
Financial support for DPOs and NGOs working in the field of digital accessibility for persons with disabilities	45.5%
A forum for the active cooperation between NGOs working in the field of digital accessibility for persons with disabilities	37.8%
A systematic mechanism to involve the DPOs working the field of digital accessibility to the drafting, designing, implementation and evaluation of laws/policies	15.6%
Any awards or other types of recognition for persons with disabilities or their representative organizations which have done extraordinary work in the field of accessibility	7.1%

Table 17: Support of DPOs and NGOs – Percentage of countries with processes in place

The **support for DPOs and NGOs** remains relatively low among the countries surveyed. The Brazilian respondent mentioned that, "There is funding from time to time, and it usually emphasizes higher education institutions and research institutes." On the other hand, Spain has a well-structured financial support system for NGOs. As stated by the Spanish respondent, "The funds and subsidies are provided by personal income taxes and by the Ministry of Health intended for programs and projects carried out by DPOs and NGOs. Among the programs under development, it is common to have those focused on digital inclusion and ICT."

Syria has programs in place to support NGOs. As stated by the respondent, "Grants and funding for local communities are provided by some organizations, such as the Ministry of Communication and Technology, UNDP-Syria, UNDP-ICTDAR ICTARB: ICT for Blind Initiative, Reefnet Project and Community Telecenters."

Capacity Building

Even though efforts are still needed to promote **capacity building**, there are countries that have taken multiple positive initiatives in this respect. For instance, the U.K. respondent pointed out that, "The Department for Business sponsors the E-accessibility Forum to bring Government together with industry and the voluntary sector to explore issues of e-accessibility, and to develop and share best practice across all sectors. One of the objectives of the forum is to make sure persons with disabilities in the United Kingdom have equivalent access to ICT networks, services and equipment in line with new EU legislation." The Kenyan respondent stated, "Disabled Persons Organizations and the Communications Commission of Kenya have jointly developed a web portal for persons with disabilities." Egypt is in the process of implementing a mechanism of cooperation. As the Egyptian respondent stated, "The Ministry of Communication and Information Technology is in the process of cooperating with a number of NGOs that work in the field of disability to initiate accessibility of their technological services for persons with disabilities."

In your Country, are there?	Yes
Participation in the work of international standards development organizations related to digital accessibility	46.8%
Nationwide conferences and other awareness raising information programs, projects, in the field of digital access over the past two years organized by Civil Society	46.5%
Nationwide conferences and other awareness raising information programs, projects, in the field of digital access over the past two years organized by Government	46.0%
Mandatory training programs (at universities, vocational schools, etc.) for future professionals about digital access for Persons with disabilities	19.6%
Nationwide conferences and other awareness raising information programs, projects, in the field of digital access over the past two years organized by Private Sector/ Industry	16.3%

Table 18: Capacity building – Percentage of countries with processes in place

Regarding basic capacity building of engineers, however, only 19.6 percent of the surveyed countries have in place mandatory training programs about digital access for persons with disabilities. In Russia, according to the respondent, "There is no mandatory training at schools or universities. A special course about digital and information technologies for higher school specialists (bachelor and master programs) has been designed, but has not been taught yet." The New Zealand respondent shared, "There are no mandatory training programs in schools or tertiary institutions. However, a private provider, Internet NZ Inc., hosted a 'nethui' (hui is a Māori word meaning meeting) in 2010. The meeting happened online, and ran over three days. This online digital community discussion included accessibility topics." The Thai respondent, on the other hand, pointed out, "There is a M.A. Program of Assistive Technology for persons with disabilities at Ratchasdua College, Mahidol University in Thailand."

While significant improvement is still needed in capacity building, it appears that the government and Civil Society are playing an important role in organizing nationwide conferences and other awareness raising information in the countries surveyed.

About 47 percent of the countries reported to have participated in the work of international standards development organizations. According to the Egyptian respondent, "WHO organized a Conference on ICT Accessibility for Persons with Disabilities two years ago. Recently the needs of persons with disabilities and accessibility services are taken into consideration on any ICT conference run by the Ministry of Communication or Ministry of Administrative Development." The Malaysian responded pointed out, "The Malaysian Federation of the Deaf (MFD) has conducted three programs over the past years: it has promoted ICT awareness among deaf persons; it has provided training on how to use and maintain ICT hardware & software; and it has implemented ICT community communication centers for the deaf where they can access ICT facilities to use sign language interpretation services provided by MFD."

Actual Implementation and Results

The results concerning the assessment of the countries' implementation and impact exhibit high variability. While 80.9 percent of the surveyed countries reported to have libraries for the blind or public libraries providing e-books services, other services such as accessible telephony are lagging.

In several areas, global market dynamics make accessible products available such as mobile handsets (47.6 percent) or computer alternative input devices (63 percent). However, when services have to be developed locally, gaps remain significant such as relay services or accessibility services for television for the deaf. The same is true for software, such as screen reader software, which is generally available internationally in major languages, but need to be adapted locally for minority languages: while 63 percent of countries mention the availability of screen readers in their main national language, only 19 percent of the countries mention having screen readers available for minority languages. The lack of availability of screen readers and text to speech options in many minority languages constitutes a critical barrier to access to digital contents for blind, reading challenged or physically impaired users. This is an area where governments can leverage public-private partnerships with the ICT industry by fostering the development of localized accessibility solutions.

While a high percentage of ratifying countries mention having libraries for the blind in place, several countries are at an early stage of implementation. In Tunisia, some libraries have started to provide e-book services. The role and support of the Tunisian Blind Union in providing e-books to blind persons have been crucial. In Sierra Leone, the 'Freedom of Information Bill' has been enacted in Parliament and steps are taken to rigorously implement ICT accessibility. Recently a center has been opened for the blind where text books in Braille are available. This center also acts as library for blind students who need such text books.

The Indian respondent emphasized that accessible publishing in the main languages spoken by minorities is an important aspect that needs to be addressed. The respondent added that, "These services are provided by not- for- profit disability organizations, primarily members of the DAISY Forum, and that many other organizations also provide traditional non-electronic formats on a large scale like NFB (the National Federation of the Blind) and AICB (All India Confederation for the Blind).

Accessibility of Telecom and Media Services

In your Country, are there?	Yes
Libraries for the blind or public libraries providing e-books services	80.9%
Closed captioning or sign language interpretation implemented by TV broadcasters, which involves:	58.7%
Assistive Technologies available to students with disabilities at major universities	53.3%
Government web sites which are accessible	51.1%
Wireless telephone handsets with accessibility features available	47.6%
Sign language for news, emergency communications or other important live announcements	45.7%
Accessible public electronic kiosks or ATMs deployed in the country	37.0%
Closed captioning or sign language interpretation implemented by TV broadcasters-Captioning of Live Programs	31.1%
Programs in place to facilitate the usage of telephony by persons with disabilities	29.8%
Closed captioning or sign language interpretation implemented by TV broadcasters- Captioning of pre-recorded programs or movies	26.7%
Accessible web sites among the top 10 commercial and media web sites	26.3%
Closed captioning or sign language interpretation implemented by TV broadcasters- Video or audio description for the blind	20.0%

Table 19: Accessibility of telecom and media services – Percentage of ratifying countries with services in place

Accessibility Features for Computers

In your Country, are there?	Yes
Screen readers available in the country's principal language	63.0%
Alternative input devices (head-trackers, joy sticks, etc.) available in the country	63.0%
Personal Computer operating system used most frequently in the country official language supports text to speech and voice recognition capabilities	55.3%
Screen readers available in the country's country minority languages	19.0%

Table 20: Accessibility features for computers – Percentage of countries with availability of specific accessibility items

Specific ICT Products and Services

In your Country, are there?	Yes
Libraries for the blind or public libraries providing e-books services	80.9%
Assistive Technologies available to students with disabilities at major universities	53.3%
Accessible public electronic kiosks or ATMs deployed in the country	37.0%

Table 21: Specific ICT accessibility products and services – Percentage of countries with availability

However, the total number of books which are available in accessible formats is miniscule compared with the number (of books) printed out by the publishing industry every year, which is reported to be close to 80,000-100,000 books. Most of the accessible books are those required for education at school and university level which are converted in these organizations. However, there is still no commercial market for those accessible books; hence, there are no accessible books in bookstores which have been released by any of the publishing houses."

Concerning **accessible government web sites**, the Slovakian respondent pointed out, "The statistics show that accessible government web sites had approximately 86 percent average in rating in the year 2010 based on 130 public web sites." Several countries reported, however, that effort is still needed in this respect. According to the respondent from Sierra Leone, government web sites are not accessible especially to persons with visual impairments. The Azerbaijani respondent also mentioned, "All public authorities in the country have their own Internet web sites, but a majority of them are not accessible"; and the Chinese respondent pointed out, "ICTs has been recognized and implemented by some web sites. But there is still a long way to go, especially for government web sites."

In regard to specific ICT products and services, Assistive Technologies available to students with disabilities at major universities (53.3 percent) and screen readers in the main language (63 percent) show an acceptable level of implementation among States Parties. The main language spoken in the country has to be taken into account.

Assessment of Core Countries for 2010-2012	2010 %Compli-ance	2012 % Compliance
Average country commitment 2012 by Core Countries	59%	51%
Average assessment of the Country's capacity for imple-mentation 2012	49%	40%
Assessment of the Country's implementation and impact	66%	60%

Table 22: Comparison of the overall degree of CRPD compliance for Legs #1, #2, #3 between ratifying countries surveyed in 2010 and 2012

The Indian respondent pointed out that, "In India, screen readers are available in English, but the majority of blind persons speak languages other than English. Currently, JAWS (screen reading software) supports Hindi, but most people cannot afford it. However, for the majority of Indian languages, there is as yet no screen reader or OCR (Optical Character Recognition)-TTS (Text-to-Speech) support." As stated by the Indonesian respondent, "The involvement of the Indonesian Blind Union has been crucial on higher education access for blind students and on encouraging universities to provide assistive technology for blind students. At the moment, there are four universities in Indonesia that provided assistive technology to students; three of them are managed by the Indonesian Blind Union." The availability of assistive devices is uneven: the Tanzanian respondent stated, "Only few people can afford to buy accessible devices and few people have the opportunity to participate in the training." On the other hand, the Azerbaijani respondent mentioned that, "Such devices are used widely, especially in computer and mobile phones."

Overall Comparison of 2010 to 2012 Progress Report Results

The number of responding countries to the CRPD ICT Accessibility Progress Report survey went up from 33 in 2010 to 52 in 2012, reflecting the increase in number of CRPD ratifying countries during the period between those two editions. When comparing overall average scores between countries participating in the G3ict survey, there is a noticeable decrease in rates of CRPD compliance in Legs #1, #2 and #3 (Table 7). This is not surprising given that the first cohort of countries to participate in the G3ict 2010 survey were considered to be among the early adopters and more motivated proponents of CRPD implementation. In addition, the second cohort of countries to participate in the G3ict 2012 survey include those that may not initially be as well-positioned or motivated to score well on CRPD compliance as the first cohort of participating countries.

Country Profiles and Compliance: Cross-tabulated Results by Region, UNDP Human Development Index and Income per Capita

In order to provide further insight into the factors that may influence the progress made around the world by States Parties in CRPD ICT accessibility compliance, three cross tabulations of the results of the survey were performed:

1. Cross-tabulation by region
2. Cross-tabulation by level of Human Development (UNDP Human Development Index) [8]
3. Cross-tabulation by level of income per capita (World Bank Data) [9]

Those results show that both levels of income and human development have a direct influence on the degree of CRPD ICT accessibility compliance with few exceptions.

The following summary tables show consolidated results for each major category of variables of the three legs of the survey:

- Country Commitments
- Country Capacity to implement
- Actual results for persons with disabilities

Cross-tabulated Results by Region

Average of Countries' Commitments	Africa	Americas	Asia-Pacific	Europe
Regulatory Framework	40%	63%	48%	70%
Policies ICT Application Areas	25%	50%	45%	57%
Policies Specific ICT Technology	18%	59%	38%	45%
Policies Specific Target Groups	8%	29%	29%	47%
Policies Assistive ICTs	10%	33%	33%	44%
Average of Countries' Capacity for Implementation				
Government Focus	44%	34%	35%	45%
Support of DPOs and NGOs	16%	14%	27%	39%
Capacity Building	25%	39%	39%	39%
Average of Countries' Implementation and Impact				
Accessible Telecom and Media Services	15%	47%	37%	54%
Accessible Features for Computers	28%	57%	53%	70%
Specific ICT Products and Services	36%	73%	60%	71%

Table 23: Cross-tabulated results by region

Cross-tabulated Results by Level of Human Development

Average CRPD Compliance of Countries' Commitments	Very High Human Development Countries	High Human Development Countries	Medium Human Development Countries	Low Human Development Countries
General Legal and Regulatory Framework	82%	52%	36%	39%
Policies Covering Specific ICT Application Areas	70%	36%	34%	25%
Policies Covering Information Infrastructure	60%	31%	35%	16%
Policies Covering Specific Target Groups	64%	18%	19%	6%
Policies to Promote Accessible and Assistive ICTs	52%	30%	22%	11%
Average of Countries' Capacity for Implementation				
Government Focus	48%	44%	33%	33%
Support of DPOs and NGOs	41%	24%	20%	14%
Capacity Building	43%	33%	48%	17%
Average of Countries' Implementation and impact				
Accessible Telecom and Media Services	69%	36%	30%	7%
Accessible Features for Computers	82%	54%	48%	16%
Specific ICT Products and Services	82%	57%	53%	30%

Table 24: Cross-tabulated results by level of human development

8. http://hdr.undp.org/en/statistics/hdi/
9. http://data.worldbank.org/country

Cross-tabulated Results by Level of Income per Capita

Average CRPD Compliance of Countries' Commitments	High-Income Economies	Upper-Middle Income Economies	Lower-Middle Income Economies	Low-Income Economies
General Legal and Regulatory Framework	83%	54%	24%	43%
Policies Covering Specific ICT Application Areas	74%	34%	26%	31%
Policies Covering Information Infrastructure	61%	34%	24%	19%
Policies Covering Specific Target Groups	69%	19%	10%	6%
Policies to Promote Accessible and Assistive ICTs	54%	31%	10%	12%
Average of Countries' Capacity for Implementation				
Government Focus	50%	44%	26%	32%
Support of DPOs and NGOs	44%	22%	17%	14%
Capacity Building	43%	37%	44%	16%
Average of Countries' Implementation and impact				
Accessible Telecom and Media Services	70%	42%	15%	7%
Accessible Features for Computers	86%	54%	39%	13%
Specific ICT Products and Services	86%	55%	44%	37%

Table 25: Cross-tabulated results by level of income per capita

Countries' Commitments

The percentages of countries that have a constitutional article, law or regulations defining the rights of persons with disabilities are: 100 percent in the Americas, and 75 percent in Europe, 77 percent in Africa, and 79 percent in Asia-Pacific. It is important to mention that African countries show a high level of compliance in this regard. This might be attributed to the involvement of persons with disabilities and their representative organizations being consulted in the evaluation of laws and policies (82 percent) and to having a designated focal point within government dedicated to CRPD matters (100 percent).

Countries' Capacity to Implement

In regard to the capacity to implement, it is encouraging to see that the majority of the surveyed countries have in place a government body specifically dedicated to persons with disabilities: 85 percent in Africa, 86 percent in the Americas, 69 percent in Asia-Pacific and 92 percent in Europe. In this respect it is important to mention that low- income countries have almost the highest results (91 percent). Africa has the highest level of implementation of nationwide conferences in the field of digital access for persons with disabilities organized by governments across the regions: 64 percent in Africa, 57 percent in the Americas, 29 percent in Asia-Pacific and 40 percent in Europe. Government focus seems to be least dependent upon levels of income per capita and human development.

The lack of statistics or data accessible for the general public about digital access by persons with disabilities is a common factor among all regions: 0 percent in Africa, 0 percent in the Americas, 8 percent in Asia-Pacific and 8 percent in Europe.

Countries' Implementation and Impact

The implementation and impact results exhibit a high variability. In terms of accessible government web sites by level of human development: 93 percent of the very high human development countries, 64 percent of the high human development countries, 30 percent of the medium human development countries and 9 percent of the low human development countries. In terms of alternative input devices (head-trackers, joy sticks, etc.), income per capita appears to influence the variability: 100 percent in high income economies, 71 percent in upper-middle economies, 56 percent in lower-middle economies and 10 percent in low income economies. Concerning library for the blind or providing e-books services, medium human development countries present a much higher level of implementation (90 percent) than high human development countries (82 percent). In terms of providing services to the general public in accessible and usable formats, there is much effort needed in lower-middle and low income economies. These economies have no level of compliance in this respect.

Opportunities for Improvement in Countries' Capacity for Implementation: Critical Success Factors Analysis

As noted earlier in this report, the overall degree of compliance with CRPD ICT accessibility provisions has been assessed in terms of: (a) Leg #1 – Countries' Commitment at 67 percent; (b) Leg #2 - Countries' Capacity for Implementation at 32 percent; and, (c) Leg #3 – Countries Implementation and Impact at 45 percent. It is obviously important for countries to establish a foundation of government law, regulation and policies in the area of digital accessibility that comports with the CRPD. To give real meaning and effect to that foundation, countries must develop and apply their capacity to implement their CRPD commitment. What lessons can be learned from country respondents who have demonstrated some success in their capacity to implement? What opportunities exist for countries to increase their capacity for implementation?

The following opportunities are identified and based on a statistical analysis of countries' survey responses. Ordinal regressions [10] were performed in SPSS (statistical software) to explore the relationship between independent variables: government framework, involvement of DPOs, funds provided to help persons with disabilities in the digital access arena and dependent variables, such as policies covering specific application areas and policies covering accessibility for specific ICT products or services. Only relationships with P values < 0.05 were chosen to establish that an effect between the independent and dependent variable exists. While no definite policy model can be inferred from any one of those specific results, the continuous strong relation between certain capacity to implement variables and outcomes demonstrate the benefits for States Parties of implementing those processes.

Each of the following six independent variables has an effect on several important areas of ICT accessibility compliance:

1. **Countries that have a government body specifically dedicated to persons with disabilities are more likely to have in place:**
   - Accessibility programs for fixed line telephony (p value 0.010)
   - Accessible web sites (p value 0.011)
   - Regulation that promotes programs advocating for ICT accessibility in transportation public address systems and services (p value 0.019)
   - Policies and programs for accessible television (p value 0.028)
   - Sign language for news and other important live programs, or emergency announcements (p value 0.038)

2. **Financial support for DPOs and NGOs working in the field of digital accessibility for persons with disabilities has an effect on regulation or programs promoting accessibility for:**
   - Closed captioning or sign language interpretation implemented by TV broadcasters (p value 0.002)
   - Captioning of pre-recorded programs or movies (p value 0.003)
   - Transportation public address systems and services (p value 0.006)
   - Fixed line telephony (p value 0.028)
   - Use of Assistive Technologies or provisions for reasonable accommodation in rehabilitation services (p value 0.030)
   - Wireless telephone handsets with accessibility features available (p value 0.032)

10. Ordinal regression is a statistical technique to predict behavior or relationship of a dependent ordinal variable with a set of independent variables. The p- value refers to the likelihood or probability of occurrence of a given result; a lower p- value means less chance of having an incorrect hypothesis.

3. **A systematic mechanism to involve DPOs working in the field of digital accessibility to the drafting, designing, implementation and evaluation of laws and policies has an effect on regulation or programs promoting ICT accessibility for:**
   - Transportation public address systems and services (p value 0.003)
   - Use of assistive technologies or provisions for reasonable accommodation in Rehab services (p value 0.008)

4. **Countries that have government funds allocated to programs in support of digital accessibility are more likely to have in place:**
   - Transportation public address systems and services (p value 0.001)
   - Regulation or programs for ICT accessibility in fixed line telephony (p value 0.008)
   - Policies and programs for accessible television (p value 0.06)

5. **A systematic review mechanism (regular report of progress etc.) by the Country of the existing legislation and/or policies concerning digital accessibility has an effect on regulation that promotes programs advocating for ICT accessibility for:**
   - Reasonable accommodation in Independent Living (p value 0.019)
   - Sign language for news and other important live programs, or emergency announcements (p value 0.037)
   - Copyrights exceptions for digital access to cultural material (p value 0.056)

6. **Country participation in the work of international standards development organizations related to digital accessibility has an effect on regulation or programs promoting ICT accessibility for:**
   - Digital talking books (p value 0.001)
   - Fixed line telephony (p value 0.002)
   - Reasonable accommodation in Primary and Secondary Education (p value 0.004)

"While no definite policy model can be inferred from any one of those specific results, the continuous strong relation between certain capacity to implement variables and outcomes demonstrate the benefits for States Parties of implementing those processes."

Implications for Stakeholders

Stakeholders involved in promoting and implementing the ICT accessibility provisions of the CRPD will derive from the present report their own conclusions and possible action steps. The following recommendations are limited in scope, but refer to essential areas of progress to realize the ICT accessibility provisions of the CRPD.

Ratifying Countries

- Mainstream disability rights and accessibility in all areas of the government and e-government in particular.
- Better implementation and monitoring mechanisms. Ratifying countries should develop systematic measurements of the levels of ICT accessibility for persons with disabilities. While progresses are made with laws and regulations that have been passed, there are important gaps between legislation and implementation, as suggested by the subjective assessment of the respondents to this survey. Data is required to support policy development and programs.
- Involve DPOs and NGOs when discussing policies and programs related to ICT accessibility. User's perspectives are essential to the proper design and implementation of accessibility services for persons with disabilities. Such approach can benefit specific areas of the information infrastructure (telecom, broadcasting, e-government), as well as specific applications and services (education, workplace, rehabilitation services, private sector services).
- While some countries have been supporting DPOs and NGOs, support, funding and recognition of the work accomplished by DPOs and NGOs needs to be increased.
- National governments should work with local governments as many essential ICT based services are rendered by local government entities.
- Develop collaborations with the private sector. As mentioned last year, a holistic and coordinate approach can help research and development. It is a good way to promote innovation and lower costs. In countries where text-to-speech or voice recognition is unavailable in local languages, governments should aggregate the needs of various departments and those of telecom service providers to help the private sector develop such tools. Private sector companies providing ICT accessibility or assistive solutions should be given the opportunity to compete for the development of local languages tools and their long term maintenance and support.
- Participate in international accessibility standards development or at least be aware of their evolution to incorporate them in national policies and programs.
- Implement public procurement rules to ensure that all ICT products and services purchased by public entities are accessible.

International Organizations

- Mainstream ICT accessibility in all activities including external communications, publishing, web sites, organization of meetings and internal workplace accommodation. Efforts similar to those of organizations, such as WHO or the ITU to promote internal ICT accessibility should be encouraged.
- Include ICT accessibility as a condition to fund projects including ICT components.
- Continue efforts in promoting ICT accessibility among key constituents at country level. Meetings organized by the ITU, UNDESA, UNESCO, ILO, WHO, the World Bank or WIPO on various aspects of ICT accessibility have had a positive impact on decision makers among country level stakeholders as demonstrated by the high percentage of African countries which mention in this survey having benefited from local conferences and seminars on ICT accessibility.

- Promote good practices and institutional reforms to ensure that persons with disabilities are involved in policy-making for ICT accessibility. As demonstrated by the regression analysis performed with this survey results, participation of DPOs in policy-making is a critical success factor for the implementation of the ICT accessibility provisions of the CRPD.
- As country reports are filed with the Committee on the Rights of Persons with Disabilities, check States Parties' capacity to implement including their support and involvement of DPOs in policy and program development should be a priority.
- Promote methodologies to measure the actual availability of accessible ICT products and services at country level, such as accessible web sites, accessible mobile phones and services or captioned TV.
- Enhance coordination among international organizations of knowledge resources, pilot projects, and joint awareness-raising and capacity building programs aimed at policy makers in order to help States Parties develop more holistic and effective ICT accessibility policies.
- Continue ICT accessibility standardization work, promote the ITU-G3ict Toolkit for Policy Makers, promote ICT accessibility among telecom regulators, service providers and the private sector, leverage practical guides and capacity building programs developed by ITU and G3ict to implement accessible television or accessible mobile phone services.
- Promote the WHO-World Bank World Report on Disability published in 2010, excellent source about what works to overcome barriers to health care, rehabilitation, education, employment, and support services, and to create the environments which will enable persons with disabilities to flourish.

Disabled Persons Organizations

- As emphasized in the survey, Disabled Persons Organizations are already doing a tremendous amount of advocacy work in the field, including by providing critical user feedback to develop ICT accessibility programs and policies in some countries. It is recommended that they advocate being involved and consulted in the work of government and the private sector and ICT accessibility issues in all countries.
- Disabled Persons Organizations involvement in consultations should be funded by governments and DPOs should use the present report to demonstrate the need for such support and funding by their governments. Such support should also include as needed capacity building in ICT accessibility matters and the participation of DPOs in international standard development organizations.
- Disabled Persons Organizations should proactively engage private sector leaders with the potential to improve ICT based services for persons with disabilities such as telecom operators, broadcasters, financial services, major web based services and web development organizations.
- Lobby for Assistive Technologies to be made available, supported and promoted in essential application sectors such as Education, the workplace and rehabilitation services.
- Overall, leverage international benchmarks such as this CRPD ICT Accessibility Progress Report to further promote the need for governments and the private sector to focus on ICT accessibility issues.

Private Sector

- While the private sector has contributed many solutions to implement the ICT accessibility dispositions of the Convention, more efforts are required to develop a greater awareness of those solutions.
- Private sector marketing and product development executives need to better analyze and leverage demographics and user needs from an accessibility perspective.
- The incorporation of accessible features in the design of products and services needs to be generalized.
- Training of engineers and personnel in accessibility matters is essential for the private sector to succeed in delivering CRPD compliant products and services. Efforts to systematize such training are critical to achieving progress.
- Service providers in the area of mobile telephony, TV, publishing and web services can have a huge positive impact on large populations of senior users and persons with disabilities by implementing proven accessibility solutions. Those need to be implemented and promoted in all countries by emphasizing the business value of those solutions as well as their contribution to CRPD compliance.

Academia

- Education is a leading application sector and ICT accessibility solutions in most countries. Academic institutions should continue to lead efforts in promoting reasonable accommodation leveraging latest Assistive Technologies.
- Academia should seek more collaboration with mainstream private sector ICT companies to ensure that solutions developed in the context of academic work may be effectively marketed to all persons with disabilities.
- Academia should lead the way in making basic courses on ICT accessibility mandatory for all engineering degrees in computer sciences and related domains.
- Finally, academia can play a very useful role in providing training, conferences for IT professionals and events to raise awareness about ICT accessibility.

ANNEX I

LIST OF COUNTRIES SURVEYED

Americas	HDEV Ranking	Income Economies Ranking	Region
Argentina	Very High	Upper Middle	Americas
Brazil	High	Upper Middle	Americas
Dominican Republic	Medium	Upper Middle	Americas
Honduras	Medium	Lower-middle	Americas
Mexico	High	Upper Middle	Americas
Peru	High	Upper Middle	Americas
United States	Very High	High Income	Americas

Africa	HDEV Ranking	Income Economies Ranking	Region
Burkina Faso	Low	Low-income	Africa
Egypt	Medium	Lower-middle	Africa
Gabon	Medium	Upper Middle	Africa
Kenya	Low	Low-income	Africa
Malawi	Low	Low-income	Africa
Mali	Low	Low-income	Africa
Mauritius	High	Upper Middle	Africa
Nigeria	Low	Lower-middle	Africa
Rwanda	Low	Low-income	Africa
Sierra Leone	Low	Low-income	Africa
South Africa	Medium	Upper Middle	Africa
Tanzania	Low	Low-income	Africa
Tunisia	High	Upper Middle	Africa
Uganda	Low	Low-income	Africa

Asia-Pacific	HDEV Ranking	Income Economies Ranking	Region
Azerbaijan	High	Upper Middle	Asia-Pacific
Bangladesh	Low	Low-income	Asia-Pacific
China	Medium	Upper Middle	Asia-Pacific
India	Medium	Lower-middle	Asia-Pacific
Indonesia	Medium	Lower-middle	Asia-Pacific
Japan	Very High	High Income	Asia-Pacific
Malaysia	High	Upper Middle	Asia-Pacific
Myanmar	Low	Low-income	Asia-Pacific
Nepal	Low	Low-income	Asia-Pacific
New Zealand	Very High	High Income	Asia-Pacific
Pakistan	Low	Lower-middle	Asia-Pacific
Philippines	Medium	Lower-middle	Asia-Pacific
Qatar	Very High	High Income	Asia-Pacific
Syria	Medium	Lower-middl	Asia-Pacific
Thailand	Medium	Upper Middle	Asia-Pacific

Europe	HDEV Ranking	Income Economies Ranking	Region
Armenia	High	Lower-middle	Europe
Belgium	Very High	High Income	Europe
Czech Republic	Very High	High Income	Europe
Denmark	Very High	High Income	Europe
France	Very High	High Income	Europe
Germany	Very High	High Income	Europe
Italy	Very High	High Income	Europe
Montenegro	High	Upper Middle	Europe
Portugal	Very High	High Income	Europe
Romania	High	Upper Middle	Europe
Russia	High	Upper Middle	Europe
Slovakia	Very High	High Income	Europe
Spain	Very High	High Income	Europe
Sweden	Very High	High Income	Europe
Turkey	High	Upper Middle	Europe
United Kingdom	Very High	High Income	Europe

Table 26: List of countries surveyed by region

ANNEX II

DETAILS RESULTS FOR PEER COUNTRIES COMPARISONS BY REGION, HUMAN DEVELOPMENT AND INCOME

The following cross-tabulated results will allow stakeholders involved in promoting ICT accessibility to make useful comparisons between their current level of compliance in comparison to the average compliance of peer countries identified by region, human development or income per capita.

For instance, using a theoretical case for the purpose of this explanation, advocates of a medium human development and low income country from the Americas region may be interested to evaluate how much is already done by peer countries in matter of accessible voting with electronic voting machines. The following tables will document the fact that accessible electronic voting has already been promoted by:

- 40 percent of low income ratifying countries;
- 33 percent of medium human development ratifying countries; and
- 50 percent of ratifying countries in the Americas.

The above example about accessible electronic voting can serve as a potentially useful benchmark to advocate for similar steps in their own country.

To facilitate the consultation of cross-tabulated results, all data points are displayed along the same original order of the three legs of the survey – country commitments, capacity to implement and actual results.

Tables presented correspond to cross-tabulations by:

- Region
- Human Development (UNDP Human Development Index) [11]
- Income per capita (World Bank Data) [12]

11. http://hdr.undp.org/en/statistics/hdi/
12. http://data.worldbank.org/country

States Parties Level of CRPD ICT Accessibility Compliance by Region	Africa	Americas	Asia-Pacific	Europe
1 - Assessment of the Country's Commitment				
1.1 General Legal and Regulatory Framework				
Provide services to the general public in accessible and usable formats	8%	57%	29%	67%
Ensure that PwDs and their representative organizations are consulted	82%	57%	62%	75%
Laws, policies or programs that promote awareness-raising about the CRPD	38%	43%	43%	50%
Designated focal point within government for matters relating to the CRPD	100%	100%	100%	92%
Constitutional article, law or regulation defining the rights of PwDs	77%	100%	79%	75%
Define public procurement rules policy promoting accessible ICTs	8%	57%	21%	33%
Definition of "Reasonable Accommodation "for the Rights of PwDs	62%	43%	54%	50%
Definition of accessibility which includes ICTs in the laws	15%	57%	46%	42%
Promote access for PwDs to ICTs and systems	46%	86%	50%	82%
Ensure that government communications to public using ICTs are provided in accessible formats, sign language or Braille	31%	71%	50%	67%
Facilitate access by PwDs to Assistive Technologies	50%	29%	50%	92%
1.2 Policies Covering Specific Application Areas				
Emergency Response Services	8%	50%	43%	53%
Primary and Secondary Education	23%	33%	64%	80%
Higher Education	25%	50%	57%	67%
Rehabilitation Services	42%	50%	57%	57%
Health Services	8%	50%	25%	40%
Voting System	31%	50%	38%	33%
Judicial Information and Legal Proceedings	17%	33%	17%	36%
Independent Living	25%	33%	43%	60%
Reasonable Accommodation at Workplace	38%	33%	50%	73%
Community Services	27%	33%	36%	67%
1.3 Policies Covering Target Groups				
Children	15%	43%	43%	85%
Women	8%	14%	9%	23%
Elderly Person	0%	29%	23%	46%
1.4 Policies Covering Specific ICT Technologies				
Television	55%	83%	62%	66%
Automated Transaction Machines and Kiosks	27%	50%	36%	27%
Public Building Displays	8%	33%	38%	23%
Web Sites	31%	83%	57%	80%
Transportation Public Address Systems and Services	18%	67%	29%	64%
Wireless Telephony and Services	15%	33%	36%	36%
Digital Talking Books	0%	50%	54%	50%
Sign Language for News/Live Programs, or Emergency Announcements	58%	67%	50%	53%
Fixed Line Telephony	8%	67%	46%	43%
Accessibility of TV Sets and Remote Controls	17%	0%	14%	20%
Captioning of Live Programs	17%	50%	43%	27%
Captioning of Recorded Programs or Movies	8%	50%	29%	33%
Video or Audio Description for Blind Users of Television	8%	50%	14%	40%
1.5 Policies Covering Accessible and Assistive ICTs				
Research and Development of UD Goods, Promotion of their Availability or Use, and Promotion of UD	15%	43%	38%	43%
Incorporation of Accessibility Features at an Early Stage of New Product Development	0%	14%	31%	31%
Promotion and Monitoring Accessibility Standards for ICT	15%	43%	31%	43%

Table 27: States Parties level of CRPD ICT accessibility compliance by region

States Parties Level of CRPD ICT Accessibility Compliance by Region	Africa	Americas	Asia-Pacific	Europe
2 - Assessment of the Country's Capacity for Implementation				
Government Focus				
Government Body specifically dedicated to PwDs	85%	86%	69%	92%
Government Body specifically dedicated to ICT	69%	43%	54%	77%
Government Fund allocated for Digital Access	38%	29%	27%	25%
Systematic Review Mechanism of Laws concerning Digital Access	25%	14%	15%	15%
Statistics or Data available about Digital Access for PwDs	0%	0%	8%	8%
2.2 Support of DPOs and NGOS				
Government Financial support for DPOs and NGOs	17%	43%	64%	50%
A Forum for the Active Cooperation between NGOs	38%	29%	23%	54%
Mechanism to Involve DPOs in the Development of Laws	23%	14%	8%	23%
Awards for PwDs provided by Government	23%	0%	17%	50%
Awards for PwDs provided by Industry	0%	0%	9%	33%
Awards for PwDs provided by Civil Society	15%	0%	27%	50%
Awards for PwDs provided by Gov. Civil Society and Industry	0%	14%	9%	8%
2.3 Capacity Building				
Mandatory Training Programs about Digital Access for PwDs	0%	14%	33%	27%
Nationwide Conferences in the field of Digital Access for PwDs organized by Government	64%	57%	29%	40%
Nationwide Conferences in the field of Digital Access for PwDs organized by Private Sector	8%	33%	17%	23%
Nationwide Conferences in the field of Digital Access for PwDs organized by Civil Society	15%	50%	67%	54%
Country participation to the work of International Standards Development Organizations	36%	43%	50%	58%
3 - Assessment of the Country's Implementation and Impact				
3.1 Telecom and Media Services				
Programs to facilitate the Usage of Telephony by PwDs	0%	33%	29%	53%
Wireless Telephone Handset with Accessibility Features	25%	50%	75%	38%
Closed Captioning/Sign Language Interpretation by TV Broadcasters	38%	67%	69%	67%
Sign language for news, emergency communications/ live announcements	31%	67%	54%	47%
Captioning of Live Programs	15%	50%	17%	47%
Captioning of pre-recorded programs or movies	8%	17%	17%	53%
Video or Audio Description for the Blind	0%	17%	8%	47%
Accessible Government Web Sites	15%	83%	43%	80%
Accessible Web Sites among the top 10 Commercial and Media Ones	0%	17%	33%	42%
3.2 Computers				
PC Operating System Most Used in the Country Official Language That Supports Text to Speech and Voice Recognition Capabilities	31%	50%	57%	73%
Screen Readers Available in the Main Language	42%	83%	57%	80%
Screen Reader in Minority Language of the Country	15%	17%	17%	25%
Alternative Input Devices Available	23%	80%	71%	87%
3.3 Specific ICT Products and Services				
Library for the Blind or providing e-books Services	54%	100%	86%	93%
Assistive Technology Available to PwDs at Major Universities	31%	83%	54%	64%
Accessible Public Electronic Kiosks or ATMs	23%	50%	36%	50%

States Parties Level of CRPD ICT Accessibility Compliance by UNDP Human Development Index	Very High	High	Medium	Low
1 - Assessment of the Country's Commitment				
1.1 General Legal and Regulatory Framework				
Provide services to the general public in accessible and usable formats	92%	36%	11%	0%
Ensure that PwDs and their representative organizations are consulted	62%	82%	75%	60%
Laws, policies or programs that promote awareness-raising about the CRPD	54%	45%	33%	42%
Designated focal point within government for matters relating to the CRPD	92%	100%	100%	100%
Constitutional article, law or regulation defining the rights of PwDs	77%	82%	100%	67%
Define public procurement rules policy promoting accessible ICTs	46%	27%	22%	8%
Definition of "Reasonable Accommodation "for the Rights of PwDs	62%	55%	22%	64%
Definition of accessibility which includes ICTs in the laws	62%	50%	22%	8%
Promote access for PwDs to ICTs and systems	92%	82%	44%	33%
Ensure that government communications to public using ICTs are provided in accessible formats, sign language or Braille	85%	45%	44%	33%
Facilitate access by PwDs to Assistive Technologies	92%	45%	33%	55%
1.2 Policies Covering Specific Application Areas				
Emergency Response Services	80%	27%	20%	9%
Primary and Secondary Education	73%	55%	50%	36%
Higher Education	73%	45%	60%	18%
Rehabilitation Services	71%	36%	50%	45%
Health Services	57%	27%	11%	9%
Voting System	47%	27%	33%	27%
Judicial Information and Legal Proceedings	50%	18%	10%	18%
Independent Living	67%	36%	33%	27%
Reasonable Accommodation at Workplace	87%	27%	50%	27%
Community Services	80%	27%	22%	27%
1.3 Policies Covering Target Groups				
Children	100%	27%	44%	8%
Women	25%	10%	11%	8%
Elderly Persons	64%	20%	0%	0%
1.4 Policies Covering Specific Technologies				
Television	86%	50%	60%	50%
Automated Transaction Machines and Kiosks	40%	36%	30%	20%
Public Building Displays	38%	27%	20%	11%
Web Sites	93%	64%	60%	18%
Transportation Public Address Systems and Services	64%	45%	33%	20%
Wireless Telephony and Services	43%	27%	40%	9%
Digital Talking Books	62%	27%	50%	9%
Sign Language for News/Live Programs, or Emergency Announcements	80%	18%	60%	50%
Fixed Line Telephony	62%	36%	40%	9%
Accessibility of TV Sets and Remote Controls	27%	9%	10%	10%
Captioning of Live Programs	53%	18%	30%	20%
Captioning of Recorded Programs or Movies	47%	27%	30%	0%
Video or Audio Description for Blind Users of Television	60%	9%	10%	10%
1.5 Policies Covering Accessible and Assistive ICTs				
Research and Development of UD Goods, Promotion of their Availability or Use, and Promotion of UD	60%	30%	22%	17%
Incorporation of Accessibility Features at an Early Stage of New Product Development	36%	10%	22%	8%
Promotion and Monitoring Accessibility Standards for ICT	47%	50%	22%	8%

Table 28: States Parties level of CRPD ICT accessibility compliance by UNDP Human Development Index

States Parties Levels of CRPD ICT Accessibility Compliance by Level of Human Development	Very High	High	Medium	Low
2 - Assessment of the Countries' Capacity for Implementation				
2.1 Government Focus				
Government Body specifically dedicated to PwDs	93%	90%	56%	83%
Government Body specifically dedicated to ICT	71%	70%	67%	42%
Government Fund allocated for Digital Access	33%	40%	33%	18%
Systematic Review Mechanism of Laws concerning Digital Access	29%	20%	0%	18%
Statistics or Data available about Digital Access for PwDs	7%	0%	11%	0%
2.2 Support of DPOs and NGOS				
Government Financial support for DPOs and NGOs	62%	45%	44%	25%
A Forum for the Active Cooperation between NGOs	54%	55%	22%	17%
Mechanism to Involve DPOs in the Development of Laws	21%	9%	11%	27%
Awards for PwDs provided by Government	50%	20%	11%	17%
Awards for PwDs provided by Industry	33%	0%	13%	0%
Awards for PwDs provided by Civil Society	50%	10%	25%	17%
Awards for PwDs provided by Gov. Civil Society and Industry	8%	10%	13%	0%
2.3 Capacity Building				
Mandatory Training Programs about Digital Access for PwDs	20%	17%	45%	0%
Nationwide Conferences in the field of Digital Access for PwDs organized by Government	43%	50%	55%	33%
Nationwide Conferences in the field of Digital Access for PwDs organized by Private Sector	31%	11%	22%	8%
Nationwide Conferences in the field of Digital Access for PwDs organized by Civil Society	69%	44%	56%	17%
Country participation to the work of International Standards Development Organizations	73%	33%	55%	25%
3 - Assessment of the Countries' Implementation and Impact				
3.1 Telecom and Media Services				
Programs to facilitate the Usage of Telephony by PwDs	67%	18%	20%	0%
Wireless Telephone Handset with Accessibility Features	69%	36%	44%	33%
Closed Captioning/Sign Language Interpretation by TV Broadcasters	87%	64%	70%	10%
Sign language for news, emergency communications/ live announcements	67%	45%	60%	10%
Captioning of Live Programs	60%	30%	10%	10%
Captioning of pre-recorded programs or movies	47%	30%	20%	0%
Video or Audio Description for the Blind	60%	0%	0%	0%
Accessible Government Web Sites	93%	64%	30%	9%
Accessible Web Sites among the top 10 Commercial and Media Ones	64%	20%	11%	0%
3.2 Computers				
PC Operating System Most Used in the Country Official Language That Supports Text to Speech and Voice Recognition Capabilities	73%	73%	50%	18%
Screen Readers Available in the Main Language	100%	55%	67%	27%
Screen Reader in Minority Language of the Country	45%	10%	20%	0%
Alternative Input Devices Available	100%	73%	60%	18%
3.3 Specific ICT Products and Services				
Library for the Blind or providing e-books Services	100%	82%	90%	45%
Assistive Technology Available to PwDs at Major Universities	77%	55%	50%	27%
Accessible Public Electronic Kiosks or ATMs	64%	45%	20%	18%

States Parties Level of CRPD ICT Accessibility Compliance by Income per Capita	High Income	Upper-Middle Income	Lower-Middle Income	Low-Income
1 - Assessment of the Countries' Commitment				
1.1 General Legal and Regulatory Framework				
Provide services to the general public in accessible and usable formats	92%	38%	0%	0%
Ensure that PwDs and their representative organizations are consulted	58%	80%	57%	78%
Laws, policies or programs that promote awareness-raising about the CRPD	50%	44%	29%	45%
Designated focal point within government for matters relating to the CRPD	92%	100%	100%	100%
Constitutional article, law or regulation defining the rights of PwDs	75%	88%	86%	73%
Define public procurement rules policy promoting accessible ICTs	42%	38%	0%	9%
Definition of "Reasonable Accommodation "for the Rights of PwDs	67%	44%	29%	70%
Definition of accessibility which includes ICTs in the laws	58%	53%	0%	18%
Promote access for PwDs to ICTs and systems	91%	81%	14%	36%
Ensure that government communications to public using ICTs are provided in accessible formats, sign language or Braille	83%	50%	29%	36%
Facilitate access by PwDs to Assistive Technologies	100%	44%	29%	50%
1.2 Policies Covering Specific Application Areas				
Emergency Response Services	86%	33%	0%	10%
Primary and Secondary Education	79%	47%	44%	40%
Higher Education	71%	47%	56%	22%
Rehabilitation Services	77%	33%	44%	56%
Health Services	62%	20%	13%	11%
Voting System	50%	33%	13%	40%
Judicial Information and Legal Proceedings	55%	20%	0%	22%
Independent Living	71%	29%	33%	30%
Reasonable Accommodation at Workplace	93%	40%	22%	40%
Community Services	86%	20%	25%	33%
1.3 Policies Covering Target Groups				
Children	92%	31%	29%	9%
Women	27%	13%	0%	10%
Elderly Person	69%	13%	0%	0%
1.4 Policies Covering Specific Technologies				
Television	85%	64%	33%	67%
Automated Transaction Machines and Kiosks	43%	27%	33%	25%
Public Building Displays	42%	20%	22%	13%
Web Sites	93%	60%	56%	20%
Transportation Public Address Systems and Services	69%	50%	11%	22%
Wireless Telephony and Services	46%	20%	44%	10%
Digital Talking Books	67%	27%	44%	10%
Sign Language for News/Live Programs, or Emergency Announcements	79%	40%	33%	67%
Fixed Line Telephony	58%	47%	22%	10%
Accessibility of TV Sets and Remote Controls	29%	13%	0%	11%
Captioning of Live Programs	50%	33%	11%	22%
Captioning of Recorded Programs or Movies	50%	33%	11%	0%
Video or Audio Description for Blind Users of Television	57%	20%	0%	11%
1.5 Policies Covering Accessible and Assistive ICTs				
Research and Development of UD Goods, Promotion of their Availability or Use, and Promotion of UD	57%	40%	0%	18%
Incorporation of Accessibility Features at an Early Stage of New Product Development	38%	13%	14%	9%
Promotion and Monitoring Accessibility Standards for ICT	50%	40%	14%	9%

Table 29: States Parties level of CRPD ICT accessibility compliance by income per capita

States Parties Level of CRPD ICT Accessibility Compliance by Income per Capita	High Income	Upper-Middle Income	Lower-Middle Income	Low-Income
2 - Assessment of the Country's Capacity for Implementation				
2.1 Government Focus				
Government Body specifically dedicated to PwDs	92%	87%	43%	91%
Government Body specifically dedicated to ICT	77%	73%	43%	45%
Government Fund allocated for Digital Access	36%	40%	29%	10%
Systematic Review Mechanism of Laws concerning Digital Access	31%	13%	14%	10%
Statistics or Data available about Digital Access for PwDs	8%	7%	0%	0%
2.2 Support of DPOs and NGOS				
Government Financial support for DPOs and NGOs	67%	50%	29%	20%
A Forum for the Active Cooperation between NGOs	58%	44%	14%	18%
Mechanism to Involve DPOs in the Development of Laws	23%	13%	0%	27%
Awards for PwDs provided by Government	55%	13%	14%	18%
Awards for PwDs provided by Industry	36%	0%	14%	0%
Awards for PwDs provided by Civil Society	55%	7%	29%	18%
Awards for PwDs provided by Gov. Civil Society and Industry	9%	7%	14%	0%
2.3 Capacity Building				
Mandatory Training Programs about Digital Access for PwDs	21%	18%	44%	0%
Nationwide Conferences in the field of Digital Access for PwDs organized by Government	46%	53%	44%	36%
Nationwide Conferences in the field of Digital Access for PwDs organized by Private Sector	25%	21%	14%	9%
Nationwide Conferences in the field of Digital Access for PwDs organized by Civil Society	67%	43%	71%	9%
Country participation to the work of International Standards Development Organizations	80%	47%	33%	27%
3 - Assessment of the Country's Implementation and Impact				
3.1 Telecom and Media Services				
Programs to facilitate the Usage of Telephony by PwDs	71%	27%	0%	0%
Wireless Telephone Handset with Accessibility Features	75%	40%	38%	25%
Closed Captioning/Sign Language Interpretation by TV Broadcasters	86%	80%	33%	11%
Sign language for news, emergency communications/ live announcements	64%	60%	33%	11%
Captioning of Live Programs	57%	36%	0%	11%
Captioning of pre-recorded programs or movies	50%	29%	11%	0%
Video or Audio Description for the Blind	64%	0%	0%	0%
Accessible Government Web Sites	93%	60%	22%	10%
Accessible Web Sites among the top 10 Commercial and Media Ones	60%	31%	0%	0%
3.2 Computers				
PC Operating System Most Used in the Country Official Language That Supports Text to Speech and Voice Recognition Capabilities	79%	67%	33%	20%
Screen Readers Available in the Main Language	100%	64%	56%	20%
Screen Reader in Minority Language of the Country	50%	14%	11%	0%
Alternative Input Devices Available	100%	71%	56%	10%
3.3 Special Services				
Library for the Blind or providing e-books Services	100%	80%	78%	60%
Assistive Technology Available to PwDs at Major Universities	83%	53%	44%	30%
Accessible Public Electronic Kiosks or ATMs	69%	40%	11%	20%

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