From Exclusion to Empowerment

UNESCO
United Nations Educational, Scientific and Cultural Organization

Conference Proceedings

From Exclusion to Empowerment: Role of ICTs for Persons with Disabilities

**An international conference
24-26 November in New Delhi, India**

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Role of ICTs for Persons with Disabilities

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This document is conference proceedings which includes most of the papers presented and discussions of the speakers at the International Conference "From Exclusion to Empowerment: Role of ICTs for Persons with Disabilities" held on 24-26 November 2014 in New Delhi, India by UNESCO Communication and Information Sector and the Governmen of India.

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Conference Purpose

The New Delhi Conference was conceived and organized as a hands-on UNESCO initiative to gather in one place the most comprehensive understanding and insights into the needs of persons with disabilities, along with illustrations of the latest cutting edge mainstream and assistive Information and Communication Technologies (ICT); the aim being to define and recommend to the world community specific policies, programmes and solutions for implementing the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and other relevant normative instruments to provide access to information and knowledge for persons with disabilities.

UNESCO took the initiative for the international Conference under those specific Action Lines of the Geneva (World Summit on the Information Society (WSIS) Plan of Action, for which it carries prime responsibility: Access to Information and Knowledge (C3); E-Learning and E-Science (C7); Cultural diversity and identity (C8); Media (C9); and Ethical Dimensions of the Information Society (C10), UNESCO's Intergovernmental Information for All (IFAP) strategic priority information accessibility of the Strategic Plan , UNESCO's Strategy on Communication and Information (37 C/5 2014-2015) and UNESCO's Medium-term strategy for 2014-2017 (37 C/4).

Conference Background

There are more than one billion persons with disabilities around the world today. The World Disability Report[i], published by the World Health Organization and the World Bank, states that 15% of the world population has some form of disability. Moreover it is estimated that one household in every four contains a member with a disability – which means as many as 2 billion people live in close contact with disability.

Disability as such, despite these statistics, did not feature in the original (2000) Millennium Development Goals (MDGs), although the MDGs did indeed target such issues as educational deprivation, the status and health of women, child mortality, poverty reduction and the quality of the environment – all of which not only interconnect with but can often exacerbate problems already faced by persons with disabilities.

So the New Delhi Conference initiative can be seen as a response to the challenge – ethical and practical - of international normative 'catch-up' delineated in various Articles of the UNCRPD; equal rights and non-discrimination(Article 5); protection of women and children (Articles 6 and 7); awareness-raising (Article 8); facilitation of access to information, products and services, including mobile devices and the internet (Article 9); equal recognition before the law, justice and security of the person (Articles 12-16); empowerment to exercise freedom of expression as well as to enjoy access to information (Article 21); assurances around health and rehabilitation (Articles 22 and 23); promotion of inclusive education systems and lifelong learning (Article 24); the right to work, on a fair and equal basis with others (Article 27), participation in political and public life (Article 29), participation in cultural life, recreation, leisure and sport (Article 30); facilitate cooperation of persons with disabilities in assessing scientific and technical knowledge (Article 32) targeted at affordable solutions, based on reasonable access and universal design.

Subsequent studies and actions, triggered by the UNCRPD, have raised the profile of disability issues within the normative framework of the UN system, so that at its 65th

Session the General Assembly adopted the Resolution "Realizing of MDGs for persons with disabilities for 2015 and beyond" and the Secretary-General stated in his 2014 Report that "within the mainstream development framework disability has been authenticated as a cross-cutting development issue, and was so specified in the 2013 Report: "*A Life of Dignity for all: accelerating progress towards the Millennium Development Goals and advancing the United Nations Development Agenda beyond 2015*".

Conference Structure

In planning the New Delhi Conference UNESCO reflected and leveraged the growing impetus within the UN system towards tackling disability issues. It also worked on the principle that "......disability is not defined on an individual basis but rather through an ecological model in which disability is seen as an evolving concept reflecting the interaction between the individual ....and social attitudes and the physical, economic and political environment that hinders the full and equal participation of persons with disabilities in society" (UN Department of Economic and Social Affairs Report, 2011). This approach can be called 'ecological' because it offers a model for analysis and action which includes medical factors but also goes much wider, embracing a range of cross-cutting issues which reflect the full scope of the UN Millennium and Post-2015 Development Goals. The close link between the socio-economic environment and the presence of disability issues is highlighted by such statistics as that 80% of persons with disabilities live in isolated rural areas in developing countries and that 168 million children with disabilities have not completed primary school education.

The appreciation that disability issues are dynamic, linked with environmental, socio-cultural, economic, political factors and susceptible of being objectively addressed - rather than static and simply a disabled person's burden - fundamentally affected the way in which UNESCO planned and shaped the Conference, opening up a range of constructive options, affording UNESCO a handle on the specifics and a set of criteria for choosing topics which could trigger change and attract speakers who were informed and engaged.

As illustrated in the figure 1 below, this resulted in the identification of three distinct yet complementarily thematic Conference Tracks:
- Partnership and Sustainable Development (Track I);
- Accessibility and Technology Solutions (Track II);
- Access to Information and Knowledge (Track III).

The Conference agenda also included eight high-level discussion-panels and a session to address the public-private partnerships in India as well as a special capacity building workshop for a number of young persons with disabilities on the usage of inclusive and accessible mainstream ICTs to access information as a part of the TechnoCamp.

An integral part of the international Conference was a Film Festival "We care – Film fest 2014-2015" and an exhibition of accessible mainstream ICTs.
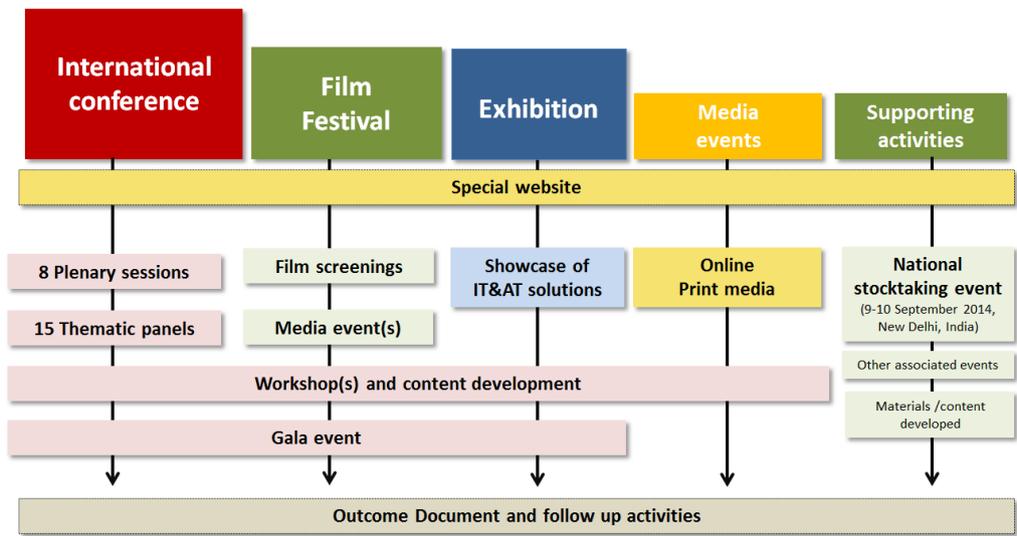
Figure 2. Overall structure of the international event

Conference Outcomes

The Conference was attended by some 700 participants from 80 countries, alongside the special 'We Care' film festival themed around disability issues, an ICT solutions-oriented exhibition and a special workshop. All regions and stakeholder groups were represented, including UN system organizations, intergovernmental and international organizations, governments, private sector, media, academia, technical and professional communities, civil society organizations and not the least, many people with disabilities.

As described in the figure 2 below, the High-level dialogues were held at plenary level and in 15 parallel sessions, divided into three thematic discussions on partnerships and sustainable development, accessibility and technological solutions, and access to information and knowledge. A total of 8 hours information and ideas sharing, learning, discussion and debate, i.e. 24 hours across 15 Parallel Sessions for the three tracks combined.

The high level drafting group, basing on the inputs provided by the rapporteurs and moderators of the sessions, prepared an Outcome Document entitled "The New Delhi Declaration on Inclusive ICTs for Persons with Disabilities: Making Empowerment a Reality". Moderators and Rapporteurs for the individual Sessions supplied their reports which - with the assistance of three Co-Chairs, one for each Track, – were edited and passed to the Conference Outcome Drafting Group, chaired by Dr. Lenin Moreno, the United Nations Special Envoy for Disability Issues.

On the final day of the Conference the draft Outcome Statement was submitted to a Plenary Session; comments were invited from participants, for incorporation in the final text, including those received after the conference via our online consultative process.
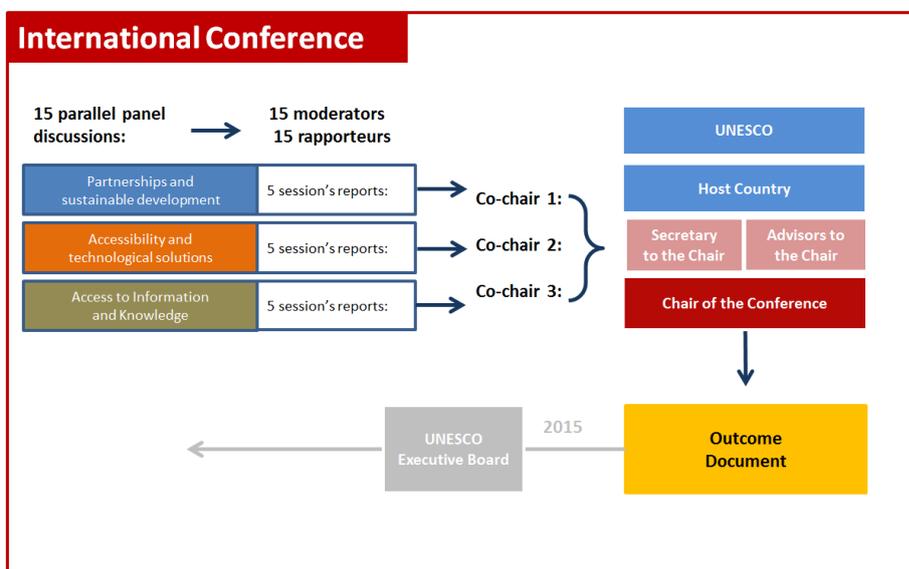

Figure 3: Preparatory process of the Outcome document.

Plenary sessions

Plenary session 1. Opening ceremony of the international conference

Chair: Dr. Indrajit Banerjee, Director, Knowledge Societies Division,
           Communication and Information Sector, UNESCO

Distinguished speakers:
- **Shri Ravi Shankar Prasad, Honourable Minister of Communications and Information Technology, the Government of India**
- **Shri Thawaar Chand Gehlot, Honourable Minister of Social Justice and Empowerment, the Government of India**
- **Smt. Smriti Zubin Irani, Honourable Minister of Human Resource Development, the Government of India**
- **Ms. Irina Bokova, Director-General, UNESCO**
- **Mr. Shigeru Aoyagi, Director and UNESCO Representative to Bhutan, India, Maldives and Sri Lanka**
- **Opening film of the We Care Filmfest 2014**

Dr Banerjee extended a warm welcome to all the guests, including the three Honourable Ministers of the Indian Cabinet, the two Keynote Speakers and all the distinguished Conference participants. He recalled the inspirational journey, lasting more than a year - with the encouragement of the UNESCO Director-General, Ms Irina Bokova – which had brought the Conference to fruition. It was a journey on which he and his colleagues had been privileged to meet some of the most exceptionally abled people and those striving to empower them from around the world.

All were gripped – at the outset of the Opening Session - when they witnessed the face and heard the voice – in a specially recorded message from Cambridge University - of one of the world's most celebrated scientists, Professor Stephen Hawking: *"Please listen to me; I am speaking for the people you cannot hear..........without technology, I would not be able to ask for a cup of tea, let alone speak of my theory of the universe"*.

The 1 billion people with disabilities in the world today, who find themselves on the fringes of society, are the stark representation of the exclusion which characterizes our world today. The positive news is that today we have the means, through ICTs especially, to alleviate or solve many of their problems. The bad news is that is far too many solutions are not fully shared or systematically implemented. Quite simply the purpose of this Conference is to bring together all the stakeholders to share best practices, solutions and knowledge.

Thanking the Government of India for hosting the Conference and welcoming, in particular, the participation of four Cabinet Ministers of the Indian Government, including Shri Mr. Vijay Sampla, Minister of State for Social Justice and Empowerment.

Dr Banerjee noted that in March 2014 the Indian Government had announced to the world the eradication of polio. With this upbeat message, he then invited the Honourable Ministers and H.E. the Director-General of UNESCO to give their addresses of welcome.

Speech of the Honourable Minister of Communications and Information Technology, Shri Ravi Shankar Prasad

Noting the Prime Minister's policy commitment and his own personal portfolio responsibilities - in the field of ICT, the Minister declared the aim of bridging the digital divide in India.

3D represents three key words: democracy, demand and demography. Demography, in particular, means plugging the gap between rural India and urban India, as a crucial part of bridging the digital divide.

India + IT= India tomorrow. Key aspects of this concept would be the delivery of e-education, e-health and e-commerce. The spirit of this enterprise would be serving poor people and people with disabilities, providing adequate quantities of computers, printers and other pieces of equipment, available digitally in those languages around India in which they could be best accessed. India having ratified the United Nations Convention on the Rights of Persons with Disabilities [UNCRPD] in 2007, the challenge now must be to implement it on a universal basis. That was not only the country's and the government's, but also his personal challenge, as Minister of Communications and Information Technology.

Speech of the Honourable Minister of Social Justice and Empowerment, Shri Thawar Chang Gehlot

Expressing his pleasure at participating in the Conference, the Minister said that his Government was focussing on a seven-point agenda related to the disability sector:

1. Enactment of the Rights of Rights of Persons with Disabilities Bill, to fulfil the international obligation of having ratified the UNCRPD;
2. Using technology to deliver low cost home-based education through e-learning;
3. Issuing a Universal ID card for each and every person with disability, so as to receive government benefits;
4. Developing specific income generation models to promote economic independence;
5. Ensuring access to public facilities, public buildings and transport;
6. Aid and support to voluntary organizations;
7. Tax relief for family members taking care of people with disabilities.

According to the 2011 census 2.21 % of the Indian population have disabilities[ii]. This is the background to the setting up in 2012 of the Department of Disability Affairs, quite deliberately within the Ministry of Social Justice and Empowerment. This Department has been responsible for several new initiatives.

The Department is now establishing the National Institute of Inclusive and Universal Design, the Indian Sign Language and Training Centre, the National Institute of Mental Health Rehabilitation, a Centre for Disability Sports and one for Disability Research. The Artificial Limbs Manufacturing Corporation of India (ALIMCO) produces a wide range of cost-effective standards-certified devices which have provided assistance to 4.2 million people since its inception in 1974.

Speech of the Honourable Minister of Human Resources and Empowerment, Smt. Smriti Zubin Irani

> The Minister focussed on the enabling power of universally accessible education which, she said, "will help to determine your future, realize your dreams and ensure equality among citizens".

In the next academic session the Government in partnership with the best Indian universities will offer undergraduate, graduate and postgraduate courses to all citizens of India. This emphatically embraces those citizens with special needs and abilities. The task implies making such children and young persons feel that they are part of inclusive schools and educational institutions. A special programme has been created for those who cannot pursue higher education – backed by scholarship funding and tuition support.

> Echoing the Prime Minister's own words, the Minister said: "Mind is never a problem, mindset is. Once we decide to do something, we can go miles ahead".

India has decided that, through IT, education will be spread to the remotest corners of the country. Education will be made accessible to those where the greatest challenges are presented, so that those who are excluded today can be empowered tomorrow.

Speech of the Director-General of UNESCO, Her Excellency Ms Irina Bokova

The Director-General, in expressing her pride in the conception and delivery of the Conference and welcoming all participants, reminded her audience that the promotion of the rights of persons with disabilities is at the heart of UNESCO's values and activities. She noted the words from UNESCO's constitution that "since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed".

In the spirit of working actively towards inclusive knowledge societies, UNESCO's 1994 Salamanca Declaration highlighted the urgency of providing education, within the education system, for children, young people and adults with special needs. In this spirit, and across the range of major issues, UNESCO is in the forefront of agencies striving to secure ratification and implementation of the United Nations Convention on the Rights of Persons with Disabilities (UNCPRD). This emphasis was underlined at the 2013 High-Level Meeting of the UN General Assembly on the Realization of the Millennium Development Goals for Persons with Disabilities.

Thanking public partners and IT companies present in New Delhi for their support, Ms. Bokova issued the challenge that "leaders in the public sector, the private sector and civil society must come together and commit to creating an enabling environment for persons with disabilities".

She added that this event , with its three distinct dimensions – the Conference itself, the Film Festival and the ICT Exhibition – offered a unique platform for show-casing cutting-edge, ground-breaking technological solutions, of broad application, standardized and delivered at reasonable cost, and capable also of targeting the wide diversity of conditions facing persons with disabilities. She concluded by expressing her gratitude and admiration to all members of the disability community for their continued courageous efforts, despite the challenges and barriers which they encounter every day.

Chair: **Ms. Lise Grande, UN Resident Coordinator and UNDP Resident Representative in India**

Keynote speakers:
- **Dr. Karan Singh, Member of India's Upper House of the Indian Parliament, the Rajya Sabha**
- **Sir Phillip Craven, President of the International Paralympic Committee (IPC)**

Keynote speech of Dr. Karan Singh, Member of India's Upper House of the Indian Parliament, the Rajya Sabha

No task could be more worthwhile than addressing the challenges of disability. Not only does disability come in many shapes and sizes: visual, audial, psychological, mental – and multiple; but the scale of the problem is tremendous. Even taking the lowest estimate of 5% of the population in India, that would be 60 million people. And at 15%, as some Conference documentation attests, that would mean more human beings than in the whole of Western Europe.

Dr Singh drew upon his work as a former Minister of Health and also dug deep into his personal experience as someone who himself overcame physical disability, and also witnessed with wonder his late wife establish the Centre for Mentally Handicapped Children, enabling such children to develop their skills and become useful members of society.

Dr Singh identified a number of levels at which society, using all its forces, had to face the challenge:
- Medical, modern technologies, using low-cost treatments;
- Commitment throughout government, including gender sensitivity;
- Deploying the full power of the law, to revise existing and implement new legislation;
- A massive public relations campaign, involving the media and the arts, to change societal attitudes;
- Preventive measures, wherever possible, to stop or treat disability, based on the right to enjoy a healthy life.

Finally the fight against disability, in Dr Singh's view, was a question of the mind as well as of the body. This was true for the individual who could benefit from such solutions as yoga and meditation; and it was true for society, the body politic – national and global. Jawaharlal Nehru, addressing the General Assembly half a century ago, said that "UNESCO represents the conscience of humanity"; that was, and still is, the challenge confronting us.

 Keynote speech of Sir Phillip Craven, President of the International Paralympic Committee (IPC)

Sir Phillip began by expressing his appreciation of the title chosen for the Conference, which illustrates the awakening of the individual and the start of his journey to empowerment. Speaking from his wheelchair at the front of the stage he summoned up onto the wide screen powerfully moving pictures from the London Paralympics,

reminding everyone of the assessment given by Lord Sebastian Coe, Chair of the Organizing Committee for the London 2012 Olympic and Paralympic Games, on the "seismic effect in shifting public attitudes" brought about by the Paralympians' sporting achievements. Said Lord Coe:

"I don't think people will ever see sport the same way again.
 I don't think they will ever see disability in the same way again"

Sir Phillip described the principles underlying the Olympic movement and reminded everyone of how the London 2012 Olympics and Paralympics had been organized as naturally complementary twin pillars of the Olympic Movement, He aligned them with the need for a positive attitude on the part of the individual athlete or indeed any person with a disability, from a starting point of "standing tall" to address whatever life throws at him or her.

He reinforced the words already heard by Ministers of the Host Government :
"Mind is never a problem, mindset is. Once we decide to do something, we can go miles ahead."

Plenary session 3. High level panel discussion

Moderator: Dr. Andrew Taussig, Former Trustee, the International Institute of Communications, UK

Rapporteur: Dr. Dianne Chambers, Associate Professor, Coordinator of Special Education Coordinator, University of Notre Dame Australia, Australia

High Level Speakers:
- **Ms. Kim Simplis-Brown, Special Envoy of the United Nations for Women and Children, and First Lady of Belize, Belize**
  - **Dr Lenin Moreno, Former Vice-President of Ecuador and Special Envoy of theUnited Nations for Disability and Accessibility Issues**
- **H.E. Mr. Ali Al-Tarrah, Ambassador and Permanent Delegate of the State of Kuwait to UNESCO, the State of Kuwait**
- **Mr. Antônio José Ferreira, National Secretary for the Rights of Persons with Disabilities, Secretariat of Human Rights for the Presidency of the Republic of Brazil, Brazil**
- **Lord Colin Mackenzie Low, Member of the House of Lords, the Parliament of the United Kingdom and Vice-Chairperson of the Royal National Institute for the Blind (RNIB) and President of the European Blind Union, United Kingdom**
- **Ms. Stuti Kacker, Secretary, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Government of India**
- **Mr. Jinuk Shin, Vice-President and Head of Corporate Citizenship Group, Samsung Electronics Co. Ltd, South Korea**
- **Ms. Eve Andersson, Lead Accessibility Engineering, Google, USA**
- **Mr. Chalapathy Neti, Director Educational Transformation, IBM Global Research, India**
- **Ms. Ruth Warick, Second Vice-President of the International Disability Alliance (IDA) and President of the International Federation of Hard of Hearing People, Canada**

Main points from remarks of High Level Panellists

Ms. Kim Simplis-Brown
- The ability to access information is the greatest gift.
- Googling is now part of our vernacular: we are reliant on technology, yet the isolation of so many communities, inadequate access to electricity and poverty remain major challenges – for example in Belize, car ramps, therapy and inclusive education are all at an early stage of roll-out.

Dr. Lenin Moreno
- Despite, a few years ago, marvelling at the potential assistive impact of technology, he now perceived it as stagnating. Wheelchairs existed two hundred years ago. It appears almost that the purpose of technology is to produce expensive toys and add new, unnecessary functions to ICT devices.
- He expressed disappointment at the failure to seek design input from persons with disabilities; scientific knowledge is the property of all human beings. It is the duty of governments to apply science and technology to disability, using the full range of inputs.

H. E. Mr. Ali Al-Tarrah

- Human rights are not just about political perspectives: they are about the enforcement of concrete rights. A serious issue exists about the global distribution of persons with disabilities: linking disability and poverty.
- Noted the Kuwaiti Government's initiative, in the establishment of an International Excellence Centre in Kuwait, aimed at incentivizing inventive and assistive solutions for persons with disabilities.

Mr. Antônio José Ferreira

- Accessible America and similar meetings very important for boosting collaboration between countries- the same applies to technical cooperation between Portuguese-speaking (Lusophone) countries. Progress must be seen as integral to the post-2015 Development Goals.
- Universal design is a key-enabler; as are personal contacts and individual help – spoken from Mr Ferreira's own experience.

Lord Colin Mackenzie Low

- Article 24 can and should be used to help the visually impaired. 4.4 million of the 6 million visually impaired children worldwidereceive no education.
- The UN Global Impact of Communication Technology (UN EFAVIC) initiative helping 100,000 children, but just scratching the surface; UK former PM Gordon Brown setting an example of personal involvement.
- Essential ingredients of progress are 'K-C-C' – Kit, Content and Confidence.

Ms. Stuti Kacker

- Highlighted India as illustrating the importance of a vibrant voluntary sector; even so there is a massive problem of 'unevenness' in terms of the provision of facilities, with technologies available for certain categories of disabilities and not for others.
- Whilst a government fund exists for those who cannot afford (e.g.) tricycles and wheel chairs, and there is a state-owned company making artificial limbs, the diversity of disability, with so many individual personal situations, remains a massive challenge.

Mr. Jinuk Shin

- Samsung's product offer to people with disabilities derives from its across-the-board philosophy of serving rich and poor alike in the most environmentally and user-friendly ways, equipping mobile devices with interfaces which enable them to control connected TV screens, washing machines and central heating systems. It's in this spirit that Education, Employment and Healthcare are the main categories for the Citizenship Programmes of Samsung's 'Smart School', Tech Institute, Solve for Tomorrow and Care Drive.
- Specific applications are a technology that automatically detect sounds, such as a baby's cry, and converts them into visual form so that hard-of-hearing people receive an alert on their smart-phone or wearable device. Another great product is 'Eye-Can', developed by a group of volunteers at Samsung's Creative Lab: a low-cost computer mouse, controlled by the user's eye, building on Eye-Writer and allowing control of an on-screen keyboard through blinking and eye movement. Hitherto a comparable product would cost around $100,000; Samsung is giving 'Eye-Can' software away basically for free and it can be brought into operation for around $50.

Ms. Eve Andersson

- What Google can contribute to assist and empower people with disabilities is based on its search tools – specifically screen-readers and refreshable Braille displays – smarter algorithms and predictive devices, with answers straight on the page, are examples.
- It's all about building knowledge, with the awareness that there's a long way to go; though 'Googling' is part of today's vocabulary for countless millions, the greater part of the world's population is not yet on the internet at all.

Mr. Chalapathy Neti

- In making the needs and wishes of people with disabilities into a reality, compliance methodology is important. IBM has appointed a Chief Disability Officer.
- ICTs offer the capability to lower the cost of education by a factor of 10. For the record, there an estimated 900 million mobile phones in India.

Ms. Ruth Warick

- Told her personal story of being fired after one week in a job because of a hearing impairment. Dealing with disability issues requires a mixture of awareness-raising, ethical frameworks at all levels and standards enforcement.
- ICT devices need to be thoroughly impregnated with the Assistive Technology mentality. This principle covers the phone, the web and the TV set. Canada passed legislation that manufacturers must put the T-Switch (telecoil + headset) into all phones.

Plenary session 4. Official inauguration of the international film festival
      "*We Care FilmFest*" 2014"

Chair: **Ms. Stuti Kacker, Secretary Department of Disability Affairs,**
                 Ministry of Social Justice and Empowerment, the Government of India

Panel Speakers :
- **Mr. Satish Kapoor, Founder and Director, Brotherhood and WE CARE FilmFest (India)**
- **Mr. Shigeru Aoyagi, Director and UNESCO Representative to Bhutan, India, Maldives and Sri Lanka and UNESCO Office in New Delhi**
- **Ms. Kiran Mehra-Kerpelman, Director, UN Information Centre for India and Bhutan**
- **Mr. Nagesh Kukunoor, Eninent Film-Maker, India**
- **Mr. Awanish K. Awasthi, Joint Secretary, Department of Disability Affairs, Ministry of Social Justice and Empowerment, the Government of India**
- **Mr. Govinda Nihalani, Distinguished Film-Maker, India**
- ***Vote of Thanks by* Mr. A. Parsuramen, Founder, Global Rainbow Foundation, Mauritius**

~~~~~   followed by Screening of Films   ~~~~

Plenary session 5. New Opportunities for Enhanced Partnership between the Public and Private Sector

Joint Session organized by UNESCO, national public and private partners

Chair: Ms. Stuti Kacker, Secretary, Department of Disability Affairs, Ministry of Social Justice and Empowerment, the Government of India

Rapporteuur: Mr. Pavan Duggal, Advocate, Supreme Court of India, and Head of Pavan Duggal Associates, President of Cyberlaws.net and President of Mobilelaw.net

Panel Speakers :
- Mr. DPSingh, Vice President and Head of Human Resources, IBM India and South Asia
- Ms. Vineeta Dixit, Public Policy & Government Relations, Google India
- Ms. Sreela Das Gupta, Diversity and Inclusion at BPS, Tata Consultancy Services (TCS)
- Ms. Madhu Khatri, Associate General Counsel, Microsoft Corporation India Pvt. Ltd.
- Mr. Ashutosh Chadha, Director, Corporate Affairs South Asia, Intel Technology India Pvt.Ltd.
- Shri Awanish Kumar Awasthi, Joint Secretary, Department of Disability Affairs , Ministry of Social Justice and Empowerment, Government of India
- Dr. K.V.S. Rao, Director, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Government of India
- Prof. Rabhat Ranjan, Information Technology, Forecasting and Assessment Council, Department of Science and Technology, the Government of India
- Representatives of the National Association of Software Companies (NASSCOM), India

Main points from remarks of panel session no 5

Prof. Rabhat Ranjan, Mr Ashutosh Chadha and Ms Madhu Khatri
- Three early speakers in the session underlined the essential complementarity of the role played by each of the two.

Ms. Vineeta Dixit
- Highlighted the importance of cooperation between all stakeholders, both private sector companies, civil societies and public sector, in order to find particular solutions, Universal design principle, which could be applied across the countries.
- Discussed the importance of working with public sector on reinforcing and implementing standards. She also noted that working with public sector should be a parallel process to set up the standards and reinforce their implementation.

Prof. Rabhat Ranjan
- There were three necessary dimensions: digital skills, connectivity and accessibility; and (said Ms.Khatri) two possible ways of partnership: (i) introducing new technology and making it more accessible, (ii) creating incentives and policies to encourage companies.

Dr. K.V.S. Rao
- This point was underlined, on the Government's behalf, by Dr. Rao who said that policies and laws traditionally focused on physical disability were now being dramatically expanded to focus on the needs of the enquiring mind and themes such as education, information and recreation.

Ms. Sreela Das Gupta
- From Tata Consultancy Services Ms Gupta paid the compliment of saying that this Conference in New Delhi was the most accessible she had ever been to.

DP Singh
- DP Singh from IBM backed this up, pointing out that IBM was one of the first in the region to employ persons with disabilities, to appoint a Chief Accessibility Officer and to highlight the urgency of bringing ICTs into rural areas, to open up the world of information, data and research to persons with disabilities in a countryside context.

Rapporteur's comments:
- The Rapporteur, Mr Pavel Duggan emphasized that an important prerequisite to successful partnerships between the public and private sectors is a legal framework which is transparent and inspires confidence.
- The legal foundation for inclusiveness and accessibility is enforcement of certain rights such as those set out in the UN Convention applying to education, information and healthy living.
- A key part of creating confidence and building capacity, Pavel Duggan emphasized, was establishing more robust and systematized data and serious sharing of material within and between countries.
- Corporate business (he added) is, increasingly, the driving player in the initiation and negotiation of public private partnerships and the models supporting them.

Plenary session 6. TechnoCamp – best practical solutions for the Inclusion of Persons with Disabilities. A series of presentations by students with disabilities and their teachers

Chair: Mr. Mark Coppin, Anne Carlsen Center, North Dakota, USA

Speakers: Students with disabilities who attended the Techno Camp, and their teachers

Main points from remarks of panel session no 6

- The Session was opened by the Chair, Mr Mark Coppin who had set up the Conference 'techno-camp' in which children and young adults from India had been brought into a classroom where some of the latest assistive technology was on display and its relevance to their personal needs demonstrated in practice. Mark Coppin told participants that 15 students were given access to computers, tablets and various mobile devices, so that they could discover their creative side and potential – thus revealing the creative power of the latest ICT advances.

- He expanded on this in replying to a question from Ms Cecile Guidote-Alvarez, Director of "Earthsavers", UNESCO's Artists for Peace, the Philippines about what the sphere of the arts can do to raise empowerment for persons with disabilities.

- Thanks for the Technocamp were expressed by Mr. Armoogum Parsuramen, Founder-President, Global Rainbow Foundation and former Director and Representative of UNESCO to India, Bhutan, Maldives and Sri Lanka. He said he particularly appreciated the focus on changing mindsets towards the positive: he uttered – longingly – the quotation: "The day is not far when 'disability' will fall out of our dictionary". Knowing from his experience the limitations imposed by resources limits upon the number of such seminars and technocamps, he said that nevertheless a special effort should be made to 'spread the message' to rural areas.

- Mark Coppin concluded by thanking everyone for their interest, leaving the session and conference representatives overall with the thought that those attending might themselves go out and look for local app developers who would makes apps relevant to the individual needs of students – as well as other groups and individuals.

The Parallel Sessions
Thematic track I : Panerships and sustainable development

Parallel session 1. Partnership for Disability-inclusive Development

Moderator: Mr. Jaco Cilliers, Country Director, United Nations Development Programme (UNDP), India

Rapporteur: Ms. Aiko Akiyama, Social Affairs Officer, Social Development Division, United Nations Economic and Social Commission for Asia and the Pacific, Thailand

Ms. Wanphen Sreshthaputra, Social Affairs Officer, UNESCAP South and South-West Asia Office, New Delhi

Panel Speakers :
- **Mr. Paul Comyn, Senior Vocational Training and Skills Development Specialist, ILO Decent Work for South Asia, International Labour Organization, Thailand**
- **Mr. Sameer Sharama, Senior Advisor, Regional Office for Asia and the Pacific International Telecommunication Union (ITU), Thailand**
- **Ms. Aiko Akiyama, Social Affairs Officer, Social Development Division, United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Thailand.**
- **Ms. Subhalakshmi Nandi, Programme Specialist, Women's Economic Empowerment (UN WOMEN), India.**
- **Ms. Amita Tandon, Educational Specialist, United Nations Children Fund (UNICEF), India**
- **Mr. Anirban Sarma, National Officer, UNESCO Office in New Delhi, India**
- **Ms. Viniti Mehra, Protection Associate, the Office of the United Nations High Commissioner for Refugees (UNHCR)**

Main points from remarks of parallel session no 1

- UN Country Team in India reported and compared notes on progress in accomplishing mainstreaming of disability development trends and projects.
- Acknowledged problems posed by the complexity and diversity of disability, but – on the positive side – the unprecedented potential for improvement contained in the unfolding ICT revolution.
- Came up with a series of recommendations, identifying in each case both the recommended action points and the relevant actors involved:
- A professionally designed media-awareness campaign, to combat unhelpful stereotypes, and situations of discrimination, not just affecting persons with disabilities but also other disadvantaged groups: women, girls, refugees, uprooted displaced populations *(Action*: Media in collaboration with government and civil society).
- "Get counted to count" – a drive to assemble better data, learning from the Incheon Strategy to "make the right real" for persons with disabilities in Asia and the Pacific, rigorously track project progress; explore use of UNHCR card to identify needs of refugees with disability problems (*Action*: Governments, UN entities).
- Share useful knowledge at the national, sub-national and community levels (*Action*: UN entities, organizations of persons with disabilities, governments, private sector).

- Harness national and regional cooperation to implement action through strategic partnerships: this requires components of the UN system aligning their aims and actions with each other and the governments concerned: includes assuring access for people with disabilities to all UN-organized meetings. Policy dialogue with governments - covering such areas as gender, ICT applications, education, culture and labour
- Must aim at mainstreaming disability in policy priorities (*Action*: UN entities, organizations of persons with disabilities, private sector, trade unions).

Parallel session 4. Partnerships and Sustainable Development: From Policy to Implementation

Moderator: Ms. Stuti Kacker, Secretary, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Government of India

Rapporteur: Ms. Ruth Warick, President of the International Federation of Hard of Hearing

Panel Speakers:

- **Mr. Awanish K Awasthi, Joint Secretary, Department of Disability Affairs, Ministry of Social Justice, the Government of India**
  - **Shri D. R. Sarin, Chairman and Managing Director, Artificial Limbs Manufacturing Corporation of India (ALIMCO)**
- **Mr. T. D. Dhariyal, Deputy Chief Commissioner, Office of the Chief Commissioner for Persons with Disabilities**
- **Mr. Shri P.C. Das, Chairman and Managing Director National Handicapped, Finance and Development Corporation (NHFDC)**
- **Dr. Dharmendra Kumar, Director, Institute of Physically Handicapped (IPH)**
- **Ms. Anuradha Dalmia, Director, National Institute for the Visually Handicapped (NIVH)**
- **Dr. Neeradha Chandra Mohan, Director of National Institute for Empowerment of Persons with Multiple Disabilities**
- **Ms. Aloka Guba, Former Chairperson of National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities**
- **Dr. Shailja, Head, Dept of Special education, National Institute of Mentally Handicapped**
- **Dr. A. K. Singh, Director, Ali YavarJung National Institute for the Hearing Handicapped**

Main points from remarks of parallel session no 4

Mr. Awanish Awasthi

- Provided an overview of the Department of Disability Affairs, recently established in 2012, to ensure that disability issues get their due attention with greater effectiveness in the Government.   Highlighted Digital India initiative including a scheme to provide comprehensive technology and assistive aids to be launched in December 2014. India will complete its first country report on the status of persons with a disability by end of the year.
- According to the 2011 Census, 2.2% of the population – 26 million persons – have a disability but he noted that stigma means a lot of people do not self-identify and this is particularly the case for a lot of older persons. A major government initiative will be to introduce a disability identification process allowing for data collection besides benefiting individuals as proof of eligibility for services with transferability across the country.

Shri D. R. Sarin

- Noted that the agency was established in 1972 and has facilities across the country to provide devices for children and adults. It was noted that the website for the agency provides consumers with direct access to the largest manufacturers in the country.

T. D. Dhariyal

- Described the Office's role in safeguarding the rights of persons with disabilities and noted a web-based tracking system that enables complainants to track the status of their issue.
- Drew attention to a regulatory role of the Rehabilitation Council of India in ensuring that persons in the rehabilitation and special education fields have the necessary qualifications. Current challenges are (a) the digital divide between urban and rural areas, (b) the absence of adequate ICT systems within State Commissions (c) the lack of affordable, accessible and adaptive ICTs and (d) the lack of website accessibility.

Shri Das

- Discussed his Corporation's role in providing financial support to communities and for initiatives to help persons with disabilities, as well as developing a national job portal for people with disabilities.

Dr. Dharmendra Kumar

- Provided examples of assistive devices and technologies that are promoting individual independence, illustrating empowerment through ICTs; devices need to be cost effective, user friendly, durable and available at a common, publicized location.

Ms. Anuradha Dalmia

- Reinforced the relevance of Article 9 of the CRPD about access to information. Underlined the role of libraries as a gateway to knowledge, citing a contractual arrangement with *Bookshare.*
- The Institute for the Physically Handicapped has set up an awards program to recognize exemplary websites, one award each for government and the private sector. A number of other initiatives and specific devices were mentioned with the speaker noting that great strides had been made in the last 10 years.

Dr. Neeradha Chandra Mohan

- Cited sports and recreation, alongside education, as areas where adaptations are important because of their importance in building up individual self esteem. For persons with disabilities, technology makes things possible.

Ms. Aloka Guha

- Said that a driving force behind establishing her organization was concern about "What happens to my child after I die?" She also expressed concern about the lack of staff retention at upper levels of education.
- Noted that the numbers of identified children with autism has increased enormously over the years. ICT offers a means for education and employment for such individuals. It helps to build confidence and comfort and is completely non-judgmental.

Dr. Shailja

- Described the elements of curriculum-based support packages developed for students who are mentally handicapped, to enhance their learning, noting that each individual has a personal plan with progress monitoring provided. The e-learning framework includes computer- aided solutions for persons with mental

retardation. The 'kit' contains tools for parental use and the curriculum is applicable for inclusive schools, not just special schools.

Dr. A. K. Singh
- Outlined his Institute's programs including hearing screening on the web which asks 10 questions to help identify a hearing loss. Noted that hearing screening plays a key role for inclusion as detection of a disability is a first step toward programs and services for inclusion. He referred to other ways in which technology is being used in Institute programs.

Rapporteur's comments:
- The session provided an overview of governmental programs and services, focusing on areas related to information, communications, assistive technology, technology and education.
- Evidence suggests that care standards are raised by certification and regulation of the profession.
- The statistic about the number of self-identified persons with disabilities being at 2.2% suggests that there is a huge number of persons who do not identify.
- The population that does not self-identify may be best reached by a 'universal design' approach, although some may remain beyond the reach of governmental services and programs.

Parallel session 7. UNDESA-UNESCO Forum. Inclusion of Disability in the Post-2015 Global Development Agenda

Moderator: Ms. Daniela Bas, Director, Division of Social Policy and Development, Department of Economic and Social Affairs, UN DESA

Rapporteur: Dr. Abeer Shakweer, Minister's Advisor for Social Responsibility and Services, Ministry of Communications and Information Technology, Egypt

Panel Speakers
- **Mr. Fernando Ribeiro, Special Advisor of National Secretary for Promotion of Rights for Persons with Disabilities, Brazil**
- **Ms. Emmie Pakkala, UNICEF Uganda**
- **Ms. Akiko Ito, Chief, Secretariat to the Convention on the Rights of Persons with Disabilities, UN DESA**
- **Mr. Hiroshi Kawamura, Past President and Board Member of the DAISY Consortium**
- **Dr. Ashish Kumar Mukherjee, Vice-President,Asia-Pacific, Rehabilitation International, and Director-General, Indian Spinal Injuries Centre, India**
- **Mr. Javed Abidi, Chairperson of Disabled People's International, and Honorary Director of the National Centre for Promotion of Employment for Disabled People (NCPEDP), India**

Main points from remarks of parallel session no 7

Ms. Daniela Bas
- Ms Daniela Bas (Moderator) introduced the session, throwing the focus forward towards the post-2015 dimension of the disability discussion;
- She urged that full advantage be taken of the chance to share news both about advancements and issues which remain outstanding.

Mr. Fernando Ribeiro
- He listed what he considered key tools for achieving inclusion and sustainable development.
- Better pricing, more standardized design resulting in more accessible assistive technology, using input from those who know – namely people experiencing disabilities themselves.
- Improved cross-sectoral cooperation to deliver fulfilment of human rights for persons with disabilities, especially in the field of education.

Ms. Emmie Pakkala
- The speaker brought UNICEF's experience in improving information reach in rural areas through solar power and computer 'kiosks' installed in youth centres. She underlined the value of public-private partnerships and urged holistic solutions wherever possible.

Mr. Hiroshi Kawamura
- He gave a positive account of the benefits persons with disabilities could derive from the e-publishing opportunities enhanced by the latest ICTs, facilitating knowledge distribution in accessible formats.

Mr. Javed Abidi

- Javed Abidi, noting that 80% of people with disabilities live in the poor regions of the world, said that unfortunately the technologies suited to tackling disability issues were still very discriminatory in impact, even if not in intention.
- He quoted Mr. Wu Hongbo, Under Secretary-General of DESA "ICTs and particularly the Internet are crucial for achieving sustainable goals".

Dr. Ashish Kumar Mukerjee

- He described the situation as follows: "Technologies are links to civilization. For the majority of people technologies make things simpler, for persons with disabilities technologies make things possible".

Ms. Akiko Ito

- Speaking from the global perspective of the UN Department of Economic and Social Affairs (UNDESA), co-sponsor of the Session, Ms. Akiko Ito underlined the importance of knowledge and data-sharing.
- She described the Tokyo Development Learning Center (TDLC), set up in 2004, which covers the Asia-Pacific Region and works alongside the World Bank's Global Development Learning Network (GDLN).The aim is precisely is facilitate dialogue on disability issues between countries at a variety of different stages of development.

Parallel session 10. Inclusive Policies at the National Level: Experiences from Around the World

Moderator: Mr. Armoogum Parsuramen, Founder-President,
                           Global Rainbow Foundation, Mauritius

Rapporteur: Ms. Christine Hendricks, Executive Director,
                           Jamaica Council for Persons with Disabilities, Jamaica

Panel Speakers:
- **Dr. Abeer Shakweer, Minister's Advisor for Social Responsibility and Services, Ministry of Communications and Information Technology, Egypt**
  - **Mr. Antonio José do Nascimento Ferreira, National Secretary for the Promotion of the Rights of People with Disabilities, Ministry of Human Rights of the Presidency of the Republic ofBrazil, Brazil**
- **Mr. Wasiyou Karimu, Director, Department of Persons with Disabilities, Ministry of Social Action, Women's Empowerment and Literacy, Togo**
- **Ms. Paula Sotnik, Senior Research Associate and Project Director, Institute for Community Inclusion, School for Global Inclusion and Social Development, University of Massachusetts, Boston, U.S.A**
- **Ms. Sonia Ghandi, Head of Research, Evaluation and Impact, Ofsted, U.K.**
- **Ms. Hazel Diaz Melendez, Director, Concessions and Telecommunication Norms, Ministry of Science, Technology and Telecommunications, Costa Rica**
- **Mr. Alyaa Aljeeb, Special Education Specialist, Special Education Department, Bahrain**

Main points from remarks of parallel session no 10

Dr. Abeer Shakweer - Egypt
- Steady progress for persons with disabilities since signing the CRPD - Policies committed to Inclusion, Accessibility, Employment and Equal Opportunity Focus on strong infrastructural base underpinning inclusion.

Mr. Antonio José do Nascimento Ferreira - Brazil
- Brazil commitment has led to an amendment in their Constitution as they focus on 'Living without Limits'. Inclusion based on 4 Pillars of Access to Education, Social Inclusion, Accessibility and Healthcare.

Mr. Wasiyou Karim - Togo
- As a small nation Togo like many developing countries face a number of challenges especially for persons with disabilities in rural areas accessing ICTs mainly due to financial constraints.

Ms. Paula Sotnik - USA
- The conversation around disability issues needs to include the 'unconverted' relevant professionals: e.g. architects, so as to ensure that people with disabilities are considered and included in plans and designs, from the outset: a push for universal and standardized design is needed.

Ms. Sonia Gandhi - UK
- Social model of Disability adopted in the UK as outlined in the UNCRPD; despite the similarities it is important to highlight differentiation as one size does not fit all.

Ms. Hazel Diaz Melendez - Costa Rica

- Legal framework is critical to the implementation of policies along with incentives for employing persons with disabilities

Mr. Alyaa Aljeeb - Bahrain

- In Bahrein persons with disabilities are fully catered to throughout their school life through mandatory primary level education for all students with special needs, including the exceptionally gifted and talented – equalization with differentiation. More targeted interventions and partnerships needed for smaller developing states.

Parallel session 13. Enabling enviroments and the Role of ICTs in implementation

Session organised by the World Bank and UNESCO

Moderator: **Mr. John Blomquist, Indian Program Leader (Social Inclusion)**
                        Lead Economist, the World Bank Group

Rapporteur: **Dr. Nicola Pitchford, Associate Professor, Faculty of Science,**
University of Nottingham, UK

Panel Speakers:
- **Ms. Alexandra Posarac, Lead Economist and Co-author of the World Disability Report, the World Bank**
- **Mr. Shailendra Sigdel, Statistical Cluster Advisor, UNESCO Cluster Office in New Delhi, Sri Lanka and Maldives, India and UNESCO Institute of Statistics, Canada**
- **Ms. Meera Shenoy, Advisor to the National Skills Development Association in India for Skilling and Employment, Founder and CEO, Skills4Jobs, India**
- **Ms. Maria Eugenia Sozio, Research Analyst,the Regional Centre for Studies on the Development of the Information Society (Cetic.br), UNESCO Category II Centre based in São Paulo, Brazil**

Main points from remarks of parallel session no 13

Ms. Alexandra Posarac
- The first World Disability Report was a landmark in substantiating the extent of disability, analysing its dynamic and suggesting approaches for tackling it.
- Although ICTs had the capability to bring solutions, they could also make things worse - if poorly designed or ineptly deployed – by raising barriers to access and inclusion.
- Universal design is a pre-requisite for progress – e.g. with smart phone apps for the blind, or on ramps which could help the elderly, pregnant women, travellers with heavy luggage as well as those commonly labelled 'disabled'.

Mr. Shailendra Sigdel
- Mentions specific problems with statistics-gathering: especially in developing countries: the non-reporting issue especially where data collection relies on self-reporting, where children do not attend school, and in so far as there is divergent conceptualization around disability. Disaggregated statistics needed – not average statistics
- Butan is the only country which adopts Washington group recommendation for identifying people with disability. UNESCO has done an exercise of the EFA review. For India there has been an increase of 1.46 million to 2.72 million - of children with special educational needs. Identification and proper mechanisms to bring children back into school has not been conducted properly. Estimates of one computer per 500 people in Nepal, Bangladesh, Myanmar and Cambodia, compared to one per 4 in Singapore.
- Targets should not be over-ambitious: a case for focusing on primary and secondary rather than tertiary education.

Ms. Meera Shenoy
- Experience – working with World Bank - across a network of 200 companies in India shows that there are major mindset issues for employers and potential employees.

An important ingredient could be a sensitisation / orientation workshop for first time employers of persons with disabilities: this should involve CEO/top team, supervisor, and peer level.

Ms. Maria Eugenia Sozio
- Reported on collecting data on persons with disability in Brazil. National census used; differentiated into 4 disability types: seeing, hearing, walking and mental/intellectual. 23.9% of the population have one of these disabilities. Brazilian Network Information Centre is responsible for monitoring and research projects as well as evaluating effectiveness of ICTs in supplying assistive technology.
- Data collection covers mobile device and internet access and literacy, as well as web-page standards compliance; first indicator shows only 1.14% of web pages meet W3C standards.

Rapporteur's comments :
- Does differential sensitivity in diagnosis across disabilities emphasise an increased prevalence of visual disabilities compared to other disabilities, especially mental/intellectual disabilities?
- Might there be response bias in self-report data (census, surveys) the extent of which might differ across different cultures? Some cultures might be less willing to admit to disabilities in the household, especially mental/intellectual disabilities. How does statistics collection deal with these issues?
- Self-report measures of functionality should be assessed and compared with clinical diagnostic measures of difficulties. Examination is needed of intra-country differences as well all average country levels.

Thematic Track II: Accessibility and Technological solutions

Parallel session 2: Promoting self-reliance and livelihoods for persons with disabilities

Moderator: **Ms. Shanti Raghavan, Founder, Enable India, India**

Rapporteur: **Mr. Marcus Goddard, Managing partner,**
                           Netexplo International Partner, France

Panel Speakers:
- **Ms. Sudesh Mukhopadhyay, Chaiperson, Rehabilitation Council of India, India**
- **Ms. Uma Tuli, Amar Jyoti Trust, Research and Rehabilitation Centre, India**
- **Mr. Marcus Goddard, Managing partner, Netexplo International Partner, France**
- **Mr. Ramesh C Gaur, University librarian, Jawaharlal Nehru University, India**
- **Mr. Rajaram Sharma, Joint Director, National Council of Education Research and Training, India**
- **Ms. Sharmishtha Atreja, Representative, Open Knowledge Community (OKC), India**
- **Ms. Avesta Chouhary, Digital Empowerment foundation, India**

Main points from remarks of parallel session no 2

Ms. Sharmishtha Atreja
- Reporting on the recent ICTs national conference organised by Open Knowledge Community (OKC)KC and DEF.
- The topics included inclusive education, aspirations of youth, enabling art and culture for persons with disability and young innovators. It had been decided to hold an annual session with a workgroup including policymakers on each issue.

Ms. Avesta Chouhary
- Followed up with statistics on disabilities on India, emphasising the rural/urban divide. She then gave examples of ICT-based assistive solutions in India.

Ms. Shanti Raghavan
- Emphasized the importance of wage employment and adequate livelihood for making inclusion happen. 'Enable India' believes that any person can do any job, given the right solution.
- Gave the example of a person who can only move her thumb but thanks to assistance and technology is a program manager at ECM.

Dr. Uma Tuli
- Described the Amar Jyoti Trust, using a barrier-free holistic approach on the Trust's campus providing education, medical care, outreach camps and employment as these are all interdependent. She gave examples of solutions including a tactile path for orientation.

Mr. Marcus Goddard
- Presented examples of digital tech that could empower persons with disabilities. Although cutting-edge tech is expensive, technologies like 3D-printing and the hacker/maker movement are making many solutions more affordable.

- Digital innovations can also increase empathy and inclusion of persons with disabilities by raising awareness.

Mr. Ramesh C Gaur
- Employability for graduates is a university goal, whether students are disabled or not. He gave the example of his university's Helen Keller unit for the visually disabled.
- He pointed out that access to available digital (therefore more accessible) content in *the relevant language* was more of a problem than technology.
- He has prepared a proposal to create national resources for the visually challenged.

Professor Sudesh Mukhopadhyay
Noted persons with disabilities of employable age in India represented 60% of the "disabled" population. According to World Bank figures, 51% of this population is not literate and only 8% reach class 8. Unemployment is highest amongst people with mental retardation. There is a digital divide actually within the disabled population.

The rapporteur summarized the following recommendations:

- For Government: (1) Ensure that new technologies are made accessible as they emerge. (2) Provide enabling grants for institutions. (3) Publish a blacklist of non-accessible government websites
- For Industry: (1) Focus on changing the mindset of employers who reject persons with disabilities (2) Have a systematic roster of disabled people in every company.(3) Develop ICT solutions for small farms, a huge proportion of India's rural population. (4) Make websites more accessible to visually impaired - more specifically, improve accessibility of 'CAPTCHAS' (= Completely Automated Public Turing test to tell Computers and Humans Apart)
- For Education (1) Create a national resource centre for university's digital archives to avoid duplicating work. (2) Provide training needed for university support staff to help them implement technological solutions. (3) Offer career counselling & spread knowledge of opportunities for PWD.

Parallel session 5. From Enrolment to Employment. Technical Support for Educational Institutions and Students with Disabilities

Moderator: **Mr. Mohammed Al-Tarawneh,**
Chairman of Cross Borders Development Consultants; UN Goodwill Ambassador for Peace & Development; Special Advisor to the Mayor of Greater Amman on Human Rights; Inaugural Chairperson and Current Member Of the UN-CRPD Committee - OHCHR, Geneva

Rapporteur: **Dr. Asish Kumar Mukherjee, Vice President - Asia Pacific, Rehabilitation International and Director General, Indian Spinal Injuries Centre, India**

Panel Speakers
- **Ms. Saima Hussein, Vice President - Asia Pacific, Rehabilitation International and Director General, Indian Spinal Injuries Centre, India**
- **Professor Dominique Archambault, Master in Technology and Disabilities, Professor, Université Paris 8, France Mr. Anil Joshi, Programme Director, Human Ability and Accessibility, IBM Research Lab, India**
- **Dr. Rehema Baguma, Director, Academic Affairs, Uganda Technology and Management University (UTAMU), Uganda**
- **Professor Alireza Darvishy, Head of the ICT Accessebility Lab, Zürich University for Applied Sciences, Switzerland**
- **Ms. Sugandha Sukrutaraj, The Downs Syndrome Federation of India (DFSI), India**
- **Mr. Mohamed Elhenawy, Executive Director, Training Center and Outreach Programs, the Egyptian ADVANCE Society for Persons with Autism and Other Disorders, Egypt**

Main points from remarks of parallel session no 5

Mr. Mohammed Al-Tarawneh
- Emphasized the importance of the issues related to Accessibility Technology for education institutes and persons with disabilities, and specifically that a definition of 'accessibility' had been formulated in Article 3 of the UN Convention [UNCRPD]

Ms. Saima Hussein
- Talked about ICT applications in relation to autism in terms of the Bangladesh experience; described the aims of the Dhaka Plan of Action, and specifically its six stages, predicated on the need to build human and financial capital in education and services.

Professor Dominique Archambault
- Highlighted the process of supporting students with disabilities at post-graduate level through university, many of whom only complete their course requirements through assistive technology.

Mr. Anil Joshi
- Focused on the role of IBM in transforming daily living for people who have had disabilities for decades.

- He described 'Spoken Web' (aka Worldwide Telecom Web) as a vital aid for persons who are disabled and/or underprivileged –mentioning health and education support to, for example, people with autism.

Dr. Rehema Baguma
- Described the situation in regard to accessibility and inclusive education in Uganda; she noted the unsuitability for conditions of many brands and products: mentioned a current project with UNICEF which had brought some progress towards educational inclusiveness.

Ms. Sugandha Sukrutaraj
- Spoke about the about the experiences of Down's Syndrome in the context of a vocational training programme; this has been very successful and has been expanding all over the India.

Mr. Mohamed Elhenaway
- Emphasized the role of mobile technology in ICT.
- The picture exchange communication system (PECS) has been successful in treating Autism. The system has been unique as part of an augmentative and alternative communication intervention package for Autism and Autism Spectrum disorders.

Parallel session 8. Inclusive and Innovative Technological Solutions for Sustainable Development

Moderator: Dr. Clayton H. Lewis, Department of Computer Science and Institute of Cognitive Science, University of Colorado, USA

Rapporteur: Dr. Pilar Orero, Centre for Ambient Intelligence and Accessibility, Universitat Autonoma de Barcelona, Catalonia, Spain

Panel Speakers:
- **Mr. Pete Denman, Designer, Intel Corporation Labs, USA**
- **Mr. Winston Wei, CEO, Founder SmarttPapers International, Singapore**
- **Dr. Nicola Pitchford, Associate Professor, Faculty of Science, University of Nottingham, UK**
- **Mr. Mohamed Khalifa, CEO, Khalifa Computer Group Companies, Egypt**
- **Mr. Sumit Dagar, Designer-technologist and Founder, Kriyate, India**

Main points from remarks of parallel session no 8

Mr. Pete Denman
- UX interaction - Design a technology and then find a solution: the commercial incentive angle matters
- Two approaches: get the technology ; tension between 'find a use' and user-centric: open source options : e.g. connected wheelchair project: customised features;
- Using Galileo Intel to develop APIs (application programme interfaces).

Mr. Winston Wei
- Explained the workings of publication compression for superfast download and transmission.
- Noted that an easy publication solution exists for different terminals: TV, IP, smartphone and tablets.

Mr. Mohamed Khalifa
- Described the operation of a Cloud Solution for people with hearing disabilities; and how technology can resolve communication issues in providing education for the deaf and hard-of-hearing.

Dr. Nicola Pitchford
- Noted the effectiveness of interactive-smart technology in supporting early learning, identifying key features of teaching persons with disabilities: intuitiveness, child-centred focus and one-to-one interaction;
- Emphasized the general need for sustainability in resourcing and developing programmes.

Mr. Sumit Dagar
- Described accessibility app for visually impaired people, working on touch screens - features included the use of gestures (technology still being refined).

Parallel session 11. Making Information Accessible for Persons with Disabilities

Moderator: **Dr. Stephen King, President of Daisy Consortium, United Kingdom**

Rapporteur: **Dr. Martin Mwongela Kavua, Lecturer,**
Department of Hearing Impairment and Communication Difficulties
(HICD), Institute of Special Education (KISE), Kenya

Panel Speakers:
- Mr. Dipendra Manocha, President, DAISY Forum of India and Member of the WBU Executive Committee, India
  - Mr. Richard Orme, International Council for the Education of Visually Impaired People, ICEVI Technology Initiative Lead, United Kingdom
- Ms. Eve Andersson, Lead on Accessibility Engineering, Google, USA
  - Mr. James Teh, Executive Director, NV Access Limited, Australia
  - Mr Gary Baxter, General Manager, NV Access Limited , Australia
- Mr. Martin Mwongela Kavua, Lecturer, Department of Hearing Impairment and Communication Difficulties (HIDC), Kenya Institute of Special Education (KISE), Kenya
- Mr. Ugo Falace, CEO, Centro Leonardo Education Sri, Italy
- Professor Balakrishnan, Computer Science and Engineering Department, Indian Institute of Technology (IIT Delhi), Delhi

Main points from remarks of parallel session no 11

Mr. Martin Mwongela Kavua
- Shared a sketch depicting an analogy between an automobile and a person, highlighting the ambiguity of declaring a person 'disabled' as opposed to a person 'with a disability';   followed up with a broad review of service provision in Kenya (his home country) Kenya had a Disabilities Act since 2003 – three years before UNCRPD;
- Noted that practical measures included connection of all public schools to the electricity grid;
- Proposed yardsticks for use in evaluating the appropriateness of ICTs for persons with disabilities. It included four elements which are: Availability, Affordability, Adaptability, Accessibility.

Mr. Dipedra Manoucha
- Drew attention to the challenge of making Braille available in more languages, as well as reviewing the DAISY India Report and the infrastructure deficiencies it revealed. Materials may be translated into Braille without consulting the publishers.

Ms. Eve Anderson
- Google seeks to organise world info and make it accessible for persons with disabilities;
- Mentioned - among various relevant features and applications - android with a built-in screen reader for dyslexics and visually impaired, magnification, captions for second language users, devices for coping with issues of limited muscle movement, front-facing cameras, keyboard shortcuts, captioning interface for synchronizing typed words with spoken words;
- Researchers are invited to apply for the up to $150K Google funding award for advances in accessibility.

Mr. James Teh
- Talked about NDVA (Non Visual Desktop Access) – a free desktop reader available in 40 languages – partners are sought – Persons with disabilities themselves are mainly running it.

Mr. Richard Orme
- Picked out particular current problems – low enrolment, poor quality of educational provision: developing countries should learn from developed countries on accessibility and quality. Lessons to be learned in relation to the quest for funding and engagement with stakeholders.

Mr. Ugo Falace
- Dyslexia is a major factor in children displaying low motivation and dropping out of school; described a dedicated books project focusing on large print and easier lay-out' thereby easing dyslexia difficulties.

Professor Bukhakrishnan
- He gave an overview of ASSISTECH and what they do. For the visually impaired there is a Bus-ID device and a Smart Stick or Cane. Someone can be directed or guided to a bus door, making use of the bus route/service number.
- There are tactile navigation devices and also refreshable Braille cells. But there are challenges around sustainability of production and engaging major corporate players in a committed way.

Parallel session 14. Learning Differently for Peace and Sustainability: Gaming, Apps and Innovation

Moderator: Ms. Anamika Gupta, Programme Officer, Mahatma Ghandi Institute for Peace and Sustainable Development, India

Rapporteur: Dr. Susan D. Moisey, Programme Director and Associate Professor, Centre for Distance Education, Athabasca University, Canada

Panel speakers:
Dr. Clayton H. Lewis, Department of Computer Science and Institute of Cognitive Science, University of Colorado, USA
Mr. Devesh Kumar, Founder D Labs and NASSCOM Awarded Youth Developer, India
Mr. Jeff Poblocki, Director of Technology, Gow School, USA
Mr. Pranshu Singhal, Head of Sustainability, Nokia India Sales Private Limited, a subsidiary of Microsoft Mobile, India

Main points from remarks of parallel session no 14

Dr. Clayton H. Lewis
- Observed that - since games and online simulations are almost never inclusive of persons with disabilities – the Raman process should be adhered to, i.e. the separation of process from content.
- This means that the visually impaired should access the same spatial data base, but reach it through interrogating devices/posing questions in a different way from persons without these disabilities. Those with disabilities can thus create their own accessible technologies with support from such cooperative organizations as GPII.net

Mr. Jeff Poblocki
- Described the suite of software which his school uses to provide preparation for students with learning disability. They use Kurzweil 3000 fair text-speech, Dragon recognition software for speech to text, and Inspiration software for concept mapping.

Mr. Pranshu Singhal
- Drew on the Nokia experience to compare current status with future possibilities.

Mr. Devesh kumar
- 3 out of 10 students in India, 1 in 5 in the United States have dyslexia.
- Dyslexia - 'the gift of mystery' - takes many forms, may affect perception of letters, orientation, hearing and time. A low-cost, non-invasive solution is needed.

The rapporteur summarized the following recommendations:
- Separate content from presentation, and make re-configuration possible.
- Protect students' self-esteem, build on what students want to do.
- We need more games and more open source resources.
- Stop forcing the students to be who they are not and do what they do not want to do.

Thematic Track III. Access to Information and Knowledge

Parallel session 3. Implementing Inclusive Education to meet the Educational Needs of Persons with Disabilities: The Role of ICTs

Moderator: Professor R. Govinda, Vice-Chancellor, National University for Educational Planning and Administration (NUEPA), India

Rapporteur: Mr. Ian Kaplan, Director, Enabling Education NetworkCIC, School of Education, University of Manchester, UK

Panel Speakers:
- **Dr. Lava Deo Awasthi, Director General, Department of Education, Ministry of Education, Nepal**
- **Ms. Rosangela Berman Bieler, Chief, Disability Section, Program Division, UNICEF**
  - **Dr. Asis Goswami, Chairholder, Chairholder, UNESCO Chair in Inclusive Adapted Physical Education and Yoga, and a Dean, Faculty of General and Adapted Physical Education and Yoga, Ramakrishana Mission, Vivekananda University, India**
- **Ms. Miryam Bonadiu Pelosi, Assistant Professor, Department of Occupational Therapy, Federal University of Rio de Janeiro, Brazil**
- **Ms Maja Stojanovic, Volunteer, UNICEF, Drama Faculty, University of Montenegro, Montenegro**

Main points from remarks of parallel session no 3

Ms. Miryam Bonadiu Pelosi
- In Brazil they are working with regular schools to consider different children's potential and needs – they are working with sign language outside of regular schools for part of the day and then inside regular schools for the rest of the day. Both models – special schools and general education - have been looked at. "We understand that children with mental impairments need more attention and children with hearing impairments also – more than merely looking at every child individually";
- Work is proceeding with e-learning instruction for teachers – in schools' 5th class; focussing on helping children who can't understand all the details, helping them to gain confidence with something that fits their needs and abilities.

Dr. Ian Kaplan
- There is a degree of consensus about the target of children with disabilities having some part of their education in the general school environment – that doesn't mean all children sitting in the same classroom all the time. A carefully judged measure of integration is needed.

Dr. Asis Goswami
- The government of India has taken up the issue of devoting more accessible resources for children with disabilities at the level of higher education.

Ms. Rosangela Berman Bieler

- Urges UNICEF and other international organizations to partner country-level organizations in such costly areas of provision as sign language facilities.
- Governments should take responsibility for making textbooks accessible in multiple formats, across localities.

The rapporteur summarized the following recommendations:

- In terms of equity in education – policy makers are very proactive talking about equity for marginalised linguistic and ethnic groups, but not so much in terms of children with disabilities, as a group.
- The 'bright young things' in ICTs are in Bangalore helping out in the corporate environment, but they need to be deployed in the learning research environment. We need to do more research to better understand people with disabilities.
- A big issue exists around ensuring equal access to the job market and other aspects of society if we are measuring children differently with divergent assessment criteria.
- Most countries have moved far in terms of policy, but in terms of the actual level of participation of children with disabilities in schools there is a long way to go. Policies don't necessarily get translated in to action.
- Teachers' capabilities still need a lot of work – for all teachers, not just specialist teachers, to be inclusive teachers. We need more research in learning theories, ICT, brain mapping, cognitive processes and learning processes'.
- While our expectation is for the state to act, there is also a need for communities to change their mind-set. Social campaigning and social advocacy is just as important as pressuring the government In terms of ICTs.
- Is ICT a magic bullet? ICT is a bullet, but it is not magic. The need is to move from assistive technologies to empowering technologies. We are only using 10% of the capability of empowering technologies.

Parallel Session 6: Ensuring Freedom of Expression for Persons with Disabilities through Inclusive ICTs

Moderator: Mr. Basheerhamad Shadrach, Coordinator for Asia, Alliance for Affordable Internet

Rapporteur: Ms. Barbara Bukovska, Senior Director for Law and Policy, Article 19, UK/Czekh Republic

Panel Speakers :
- **Ms. Cecile Guidote-Alvarez, Director, Earthsavers Dream Ensemble, UNESCO Artist for Peace, The Philippines**
- **Dr. Jacob Dahl Rentdorff, Department of Communications, Business and Information Technologies, Roskilde University, Denmark**
- **Mr. Sanjeev Katara, Scientist, National Informatics Centre, Department of Electronics and Information Technology (DeitY), Ministry of Communications and Information Technology, the Government of India, India**
- **Dr. Pilar Orero, Centre for Ambient Intelligence and Accessibility, Universitat Autònoma de Barcelona, Catalonia, Spain**
- **Mr. Anand Dhuri, Sales Director(Indian Subcontinent), Scytl, India**

Main points from remarks of parallel session no 6

Ms. Barbara Bukovska
- Freedom of Expression for persons with disabilities is at the heart of human rights/empowerment issues represented by freedom of expression as articulated through Article 19;
- Mass media themselves need to be proactive in producing more diverse content as well as greater accessibility . The corporate private sector needs to heighten its involvement and resource/intellectual investment;
- Digital divide - in (i)the degree to which persons with disabilitiesare deprived of access to digital technologies and (ii) the inadequate deployment of e of universal design in computers and on the web;
- Lack of compatibility - mainstream digital devices and systems are often incompatible with assistive devices and assistive technology. Cost of many technologies is a limiting factor for persons with disabilities who live in poverty both in developing and developed countries. Apart of the initial costs (that can already be prohibitive), the technology is developing at a fast pace and can quickly become design-obsolete or in need of an upgrade;
- Excessive copyright claims, e.g. only less than 5% of books published every year are available to the blind and visually impaired persons, although the Marrakesh Treaty has made an important contribution in this respect.

Dr. Jacob Dahl Rendtorff
- Ethical principles of public governance should be articulated in terms of human dignity and fulfilled citizenship.
- Five important meanings of autonomy capacities: (i) creating ideas and goals for life; (ii) moral insight,'self-legislation' and privacy; (iii) decision and action without lack of outer constraint; (iv) political involvement and personal responsibility in a democratic framework (v) the giving of informed consent.

Mr. Sanjeev Katara

- Described the framework for web portal accessibility developed by the World Wide Web Consortium (W3C) in Web Accessibility Initiatives (WAI) – 3 standardization methods to verify accessibility in authoring tools and explain how to make the authoring tools themselves accessible, so that people with disabilities can themselves create web content, and help authors generally create more accessible and appropriate web content.
- Discussed principles of WCAG 2.0 ("POUR") - perceivable - operable - understandable - robust.
- The Indian Government's National Informatics Centre (NIC) has developed the Guidelines for Indian Government Websites to ensure that websites are user-friendly and universally accessible to those using assistive devices/ technologies on an equal basis with other users.
- Ministry of Social Justice and Empowerment has introduced three National Awards for Best Accessible Web Site, one each for Government Organization/ Public Sector, Autonomous/ Local Govt. Bodies, and Private/ Non-Governmental Organizations.
- Standardization-focused quality certification is providing Website Quality Certifications for those agencies, which are implementing WCAG 2.0 guidelines.
- Technology Development for Indian Languages has developed Text-to-Speech system in six Indian Languages Hindi, Bengali, Marathi, Malayalam, Tamil and Telugu. The objective of the project is to develop and deploy a Text to Speech system for visually challenged persons.
- National Association of Software and Services Companies has provided several guidelines for increasing the Employability, improving Physical Accessibility, Web Accessibility and Assistive Technology for disabled persons.

Dr. Pilar Orero

- Detailed some practical examples from Catalonia region in Hybrid Broadcast Broadband TV, which combines broadcast, broadband and interactive techniques, permits personalised synchronised value-addition and allows access to services via IP - seamlessly integrated. It affords also extra options through accommodating a broad range of devices and formats, ensuring synchronisation and presenting a simple, good quality user interface, thereby motivating providers to make content accessible.

Mr. Anand Dhury

- Presented the project of e-voting of Scytl.
- Explained how Scytl provides pioneering technology and techniques that ensure ballots are free from tampering from the time they leave the printing office to the time they are tallied. These technologies such as voting receipts, digital signatures, and data encryption have been certified in many countries and successfully used in numerous elections across the globe.
- Discussed how the Scytl technology has been adapted (e.g. in India) for persons with disabilities – enabling them to participate in elections without assistance and fully guarantee their privacy. The system supports multiple assistive devices to facilitate accessibility, from screen readers to sip and puff devices.

Ms. Cecile Guildote Alvarez

- The speaker highlighted the experience of the theatrical group in empowering persons with disabilities through the arts and performing theatre.

- She described personal experience that led her to work in this area during her studies and the efforts undertaken afterwards, regarding persons with a variety of disabilities. She called for further collaborative media and artistic ventures in this field.

Parallel session 9. Open and Distance Learning Services for Learners with Disabilities : The Right Perspective

Moderator: Prof. M. Aslam, Vice-Chancellor, Indira Gandhi National Open University, India

Rapporteur: Ms. Isabelle Turmaine, Director Information Projects and Services, International Association of Universities, France

Panel Speakers :
- **Dr. Dianne Chambers, Associate Professor, Coordinator Double Degrees/Special Education, University of Notre Dame Australia, Australia**
- **Dr. Susan D. Moisey, Program Director and Associate Professor, Centre for Distance Education, Athabasca University, Canada**
- **Prof. Narend Baijnath, Pro Vice Chancellor, University of South Africa (UNISA), South Africa**
- **Dr. Nor Aziah Alias, Director of Academic Development, Univeriti Teknologi MARA, Malaysia**
- **Professor Sudesh Mukhopadhyay, Chairperson, Rehabilitation Council of India**
- **Mr. Zahid Majeed, Assistant Professor, Department of Special Education, Faculty of Education, Allam Iqbal Open University, Pakistan**

Main points from remarks of parallel session no 9

Prof. M. Aslam
- Moderator offered a definition of distance learning as a modality that provides benefits to the whole of society and a response to emerging societal challenges, including training the huge number of teachers needed.
- He then described Indira Gandhi National Open University's [IGNOU] various audiences, including new learners that cannot afford traditional higher education and digital natives (i.e. those born and brought up in a pre-digital world). IGNOU offers 228 programmes, has 67 Regional centers, 54.000 students abroad, and a national center for disabilities studies as well as providing barrier-free access, material in braille, assistive technologies, and IGNOU is looking also at providing audio documents.

Dr. Dianne Chambers
- Set out guidelines on ODL for the inclusion of students with disabilities in learning. The Guidelines are conceived as a unique product launched by UNESCO with support from experts and different stakeholders. She offered definitions of accessibility terms: i.e. ODL [Open and Distance Learning], OER [Open Educational Resources], FOSS [Free and Open Source Software] and OA [Open Access].
- The drafting of the Guidelines started with research on areas examined in the literature on ODL and persons with disabilities. It showed that more people are enrolling into distance education. The Guidelines are organized in three action fields: (1) pre-requisites, (2) implementation actions and (3) monitoring processes; they address governments, institutions, instructors, and quality assurance bodies. The 2nd draft of these Guidelines is in preparation.

Dr. Susan D. Moisey
- The mission of Athabasca University, (reaching today 41,000 students from 57 countries and offering individualized and cohort-based learning models) includes

the "removal of barriers that restrict access to and success in university level study" which is supported by the Canadian Charter of Rights and Freedoms and the Canadian Human Rights Act.

- The University has a students-with-disabilities policy in which students with disabilities are defined as having "verifiable and persistent disabilities". The university is now moving from counselor support to self-help and inclusive instructional design.

Prof. Narend Baijnath
- UNISA has 400,000 students from 120 countries. The challenge is to transform the architecture of an institution making it accessible to persons with disabilities'. Diversification of student support is especially needed in South Africa's context where physical access but not epistemological access is provided. Advances in ICTs reveal new inequities and inequalities.
- Inclusive organizational architecture is aimed at reaching the optimal configuration that would enable universities to achieve their social justice mission and include diversification of talents, access and design of technical platforms along with inclusive procurement management.

Dr. Nor Aziah Alias
- University Teknologi in Malaysia has 180,000 students but is at the initial stage for people with disabilities. Persons with disabilities are not intentionally marginalized from getting education as law covers for their rights, but a need exists for more pro-active actions in order to make universities become disability friendly.
- A technology supported learning model, shaped by one particular student, was described; also the University created a Facebook for persons with disabilities to feel supported and a part of the community.

Prof. Sudesh Mukhopadhyay
- Higher Education is defined by the stages that come before reaching it, so programmes were outlined for persons with disabilities, starting from basic school level - there is limited exposure of school students with disabilities to ICTs.
- Design, accountability and monitoring of ODL for persons with disabilities is a great challenge, course materials are not adapted to their needs, and it is to be hoped that the new copyright amendment (2012) could be of some help.

Mr. Zahid Majeed
- Persons with disabilities in Pakistan constitute 2.49% of the total population (1998 census), only 1% of them have access to education. Pakistan's Education Policy 2009 includes inclusive education at all levels, and there are many opportunities provided by the State, including double salary for special education teachers, to bring more people with disabilities into education.
- Yet, Allama Iqbal University is the only option for secondary school leavers with disabilities. In Pakistan persons with disabilities are theoretically entitled to free education. The university enrolls approximately 500 students per year, mostly physically handicapped but with no intellectual disabilities. It has a support system in line for effective learning. Its main campus is in Islamabad and it has regional centers. It has 1.3M students and 100 staff with special needs training.

Parallel session 12. Supporting Community Efforts to Create Inclusive Learning Spaces for All those Using ICTs

Moderator: Ms. Chafica Abou Khaled Haddad, Deputy Permanent Delegate of Grenada to UNESCO and Chair,Intergovernmental Programme Information for All (IFAP)

Rapporteur: Mr. Sergio Meresman, Inter American Institute on Disability, Uruguay

Panel Speakers :

- **Dr. Irmgarda Kasinskaite-Buddeberg, Programme Specialist, Knowledge Societies Division, Communication and Information Sector, UNESCO**
- **Dr. Scott W. Harrington, Director of the Youth Transition Project, Nevada Center for Excellence in Disabilities (NCED), University of Nevada, USA**
- **Dr. Nicola Pitchford, Associate Professor, Faculty of Science, Nottingham University, United Kingdom**
- **Dr. Ahmed Abdul-Aziz Alghareeb, Assistant Director of Special Needs School, Speech and Language Pathologist, The State of Kuwait Ms. Revathy Rugmini, Regional Representative for Asia, Leonard Cheshire Disability (LCD), India**
- **Mr. Nitendra Rajput, Senior researcher and research manager, IBM India Research Lab, India**

Main points from remarks of parallel session no 12

Dr. Irmgarda Kasinskaite-Buddeberg

- Inclusive Learning Lab (i2Lab) is an experimental concept linked with the vision of inclusive knowledge societies, founded on human needs and human rights.
- Challenge is to develop multi-disciplinary approaches to digital access, social dialogue and innovation. It is important to carry out a mapping exercise to identify mainstream technologies accessible by persons with disabilities.
- The concept of an Inclusive Learning Lab (i2Lab) suggested by UNESCO proposes a series of inter-related zones, each of which focus on one of the four pillars of knowledge societies, around a shared hub for diverse, dynamic and inclusive learning environment in formal and informal educational settings, libraries, community and youth centres and other social-public places. The purpose of the i2Lab is to provide a learning space which is inclusive, accessible, diverse and dynamic, where persons with disabilities can access learning by exploiting assistive technologies and inclusive ICTs that are available in the lab for all other persons.

Dr. Scott W. Harrington

- A mission exists to utilize i2Lab to build an inclusive approach to job-creation within communities.
- Customizing job openings for persons with disabilities will facilitate generation of support networks.
- A win-win situation for all concerned – including employers.

Dr. Nicola Pitchford

- Providing quality curricular education (evidence based) at basic/primary level is key (i.e. Early Childhood Development - ECD) through the very best software.
- Software can be adapted to any language in the world, and can be used in any open, accessible resource/community centre – subject to affordability, portability and mobility.

- Each child should work at its own pace in an inclusive, diversity-sensitive setting.
- Legislative back-up is needed to provide encouragement and enforcement for roll-out of ICTs which have 'universal design' specifications.
- Establishment of centers and development of products will follow such legislation as has happened in Kuwait.

Dr. Ahmed Abdul-Aziz Alghareeb
- Put direct question to session participants about whether anyone had personal experience of communications difficulty – arguing that effective communication is linked with personal self-realization.
- Told participants that experience within the State of Kuwait showed legislation which was a necessary condition for creating robust and effective centers of expertise.

Ms. Revathy Rugmini
- Focus on economic participation of people with disabilities.
- Networks and partnerships are key to connecting persons with disabilities to the appropriate job opportunities – that's what a Livelihoods Resource Center [LRC] is for. DAISY technology can help to provide a multiple format entry into education.
- LRC serves to connect persons with disabilities with job opportunities (6 months development/training program).
- Using Daisy technology to provide a multiple-format access way to necessary information for job-seekers + Creation of Jobability Centers [http://www.jobability.org/]

Mr. Nitendra Rajput
- Presented cutting-edge applications using 'gestural vocabulary': free form painting, Kinect application for autistic children and children with intellectual handicaps - including Vibrain- assistive mobile learning companion.
- Inter-sector understanding key to progress: shared perspectives between commercial companies, techno-scientific community, government, civil society and people with disabilities themselves.

Parallel session 15: Open Access Policies for the Inclusion of Persons with Disabilities

Moderator: Dr. Donal Fitzpatrick, Lecturer, School of Computing, Dublin City University, Ireland

Rapporteur: Mr. Anup Das, Centre for Studies in Science Policy, School of Social Sciences, Jawaharlal Nehru University, India

Panel Speakers :

- **Mr. Katsuhita Katsuhito Yamaguchi, Nihon University Junior College, Japan**
- **Dr. Anna Maria Cetto, Instituto de Fisica, UNAM, Mexico**
- **Mr. Masakuzu Suzuki, Institute of Systems, Information Technologies and Nanotechnologies (ISIT), Japan**
- **Dr. Rajeev Shrestha, Assistant Professor of Neuropharmacology, Associate Editor of Kathmandu University Medical Journal (KUMJ), Dhulikhel Hospital, Kathmandu University Hospital School of Medical Sciences, Dhulikel, Kavre, Nepal**
- **Dr. Sridhar Gutam, Senior Scientist(Plant Physiology) and Convenor, Open Access India, ICAR Research Complex for Eastern Region Research Centre Ranchi, India**
- **Ms. Barnali Chakraworti, Barnali Roy Choudhury Convenor, Open Access, India**

Main points from remarks of parallel session no 15

Mr. Katsuhita Katsuhito Yamaguchi

- The term 'Open Access', it was emphasized, had been coined in the 1990s to signify free online access to peer-reviewed research, subsequently endorsed by the global scientific community through the three Bs: the 2002 Budapest Open Access Initiative, the 2003 Berlin Declaration, relating to the Sciences and Humanities, and the 2003 Bethesda Statement on Open Access Publishing.

Dr. Anna Maria Cetto

- The speaker from Mexico shared Latin American success stories about the collation and diffusion of online information, such as Latindex, SciELO and Redalyc, covering the Ibero-American world and the Caribbean.

Ms. Barnali Chakraworti

- But challenges remained to solve. Open Access publishers – committed in principle to promoting the Creative Commons – are often not up to date with the technological advances which have produced, for example, better and speedier interface between smart phones and tablet PCs for the visually as well as hearing impaired.
- OA publishers and journal editors should be briefed and sensitized to the latest relevant guidelines such as W3C's "Web Content Accessibility Guidelines (WCAG) 2.0 and the ITU's "e-Accessibility Policy Handbook for Persons with Disabilities", as well as with the emergence of such new format journals as JoVE, the Journal of Visualized Experiments.

Dr. Yamaguchi and Dr. Suzuki

- Discussed their experimentation with scientific content creation and access using InftyReader and ChattyInfty software – also LaTex software which can embed mathematical expressions. The said that that Open standard-based DAISY and EPub formats were particularly good for persons with visual disability.
- Making use of the latest ICT devices and applications could be crucial in resolving the problem of the regrettably low participation of persons with disabilities in

higher learning, academic research and scientific careers. Affirmative action in this field is not intensive or effective enough in the Global South - e.g. India, where no more than 3% of scientists in top academic institutions are persons with disabilities.

Dr. Rajeev Shrestha
- Difficult user accessibility and convenience issues were discussed in some detail. Also mentioned was the entitlement of persons with disabilities - as themselves potential objects of research - to full disclosure under the UNESCO Universal Declaration on Bioethics and Human Rights, along with the WMA Declaration of Helsinki- Ethical Principles of Research on Human Subjects, last revised in 2013.
- In enforcing this entitlement an Open Access approach to relevant journals and documentation was felt to be crucial.

The rapporteur summarized the following recommendations:
- In this session which participants chose to call "Achieving the 'Last Mile' on Open Access to Scientific Information and Research", they were strongly aware of the powerful series of statements by the international community underlining the universal right to pursue the search for knowledge in a free and open environment.
- Emphatic mention was made of the 2006 UN Convention (especially Article 21 - Access to Information, Freedom of Expression and Opinion); the 2003 World Summit on the Information Society, with its call to build a people-centred, inclusive and development-oriented information society where everyone can create, access, utilize and share information and knowledge"; the Universal Declaration of Human Rights, including the right to "freedom of opinion and expression" as well as "to seek, receive and impart information an ideas through any media and regardless of frontiers"; and the 2013 Marrakesh Treaty to Facilitate Access to Published Works for Persons who are Blind, Visually Impaired or otherwise Print-Disabled.
- There is a need to work with publishers of scientific journals. Some participants pointed out that considerable work had been done with "mainstream" publishers, but those publishing scientific content, particularly i n the academic sphere, were an untapped market.

Plenary session 7. Discussions and Endorsement of the New Delhi Outcome Document / Declaration – Input to the Post-2015 Agenda

Moderator: Dr. Indrajit Banerjee, Director, Knowledge Societies Division, Information and Communication Sector, UNESCO

Panel Speakers:

- **Dr. Lenin Voltaire Moreno Garces, UN Special Envoy on Disability and Accessibility, Ecuador and the Chairman of the Drafting Group**
- **Ms. Safak Pavey. Member of the Parliament and Member of the UNCRPD Committee – OHCR, Turkey and the Co-Chair of the thematic track "Partnerships and Sustainable Development"**
- **Mr. Mohamed Al-Tarawneh P.E., M.A., Chairman of Cross-Borders Development Consultants (CBDC), Inaugural Chairperson and Current Member of the UNCPRD Committee –OHCHR, Geneva, UN Goodwill Ambassador for Peace and Development, Special Advisor to the Mayor of Greater Amman on Human Rights, Jordan, and the Co-Chair of the thematic track "Accessibility and Technological Solutions"**
- **Prof. Narend Baijnath, Pro Vice-Chancellor, University of South Africa (UNISA), South Africa, and former Honorary President of the National Council for Persons with Physical Disabilities in South Africa (NCPDSA), South Africa, and the Co-Chair of the thematic track "Access to Information and Knowledge"**
- **Dr. Andrew Taussig,Former Trustee of the International Institute of Communications, UK, and the Secretary to the Chairman of the Drafting Committee**
- **Host Country Representatives: Ms. Stuti Kacker, Secretary, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Government of India; Mr. Awanish K.Awasthi, IAS Joint Secretary, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Government of India; and Dr. K.V.S. Rao, Director, Department of Disability Affairs, Ministry of Social Justice and Empowerment, the Government of India**

The Draft Outcome Statement was read out. Observations and questions were invited from session participants.

Topics raised included:
- Cultural attitudes and the role of the media and the arts – noting the special contribution of the Film Festival;
- Priority for disability in government procurement procedures: the inclusion of elderly people among those treated as persons with disabilities:
- Individualizing assistive technologies and home installation requirements;
- Capturing/sharing knowledge about latest advances and techniques in distance learning, e.g. through CEMCA (Commonwealth Educational and Media Centre for Asia);
- Emphasis on the extent of need experienced by persons with disabilities in rural areas.

The Chair said the Drafting Committee would absorb all these points, and others subsequently submitted, into the final Outcome Document and Declaration.

Plenary session 8. Closing Session

Moderator: **Mr. Shigeru Aoyagi, Director and UNESCO Representative to Bhutan, India, Maldives and Sri Lanka**

Address by Ms. Lakshmi Puri, Assistant Secretary-General, Deputy Executive Director, UN Women

- Our combined work within the MDG process and in other contexts such as Beijing + 20 has revealed how exclusion and discrimination are part of the reality of the lives of women and girls'; moreover when it comes to the disabilities experienced by women and girls, the discriminatory and exclusionary factors tend to be intensified or duplicated. This experience of "double discrimination" is manifested in various ways: illiteracy, unemployment, gender-based violence.
- Disability can also be the result of gender violence. Battered women face a higher risk of suffering from mental and physical disability. Sexual assault can cause permanent disability.
- In relation to access to ICTs, evidence suggests that the digital divide experienced by people with disabilities is wider for women. Women's access to ICTs is around 16% globally but up to 40% in some regions. Some studies, furthermore, show that women use ICTs in a less sophisticated way than men.
- Women are also highly under-represented in the ICT sector, with only 10-15% in management positions, fewer in high level policy making positions in the public sector and women heading ICT businesses only receive 6% of venture capital funding.

UNESCO closing remarks by Dr. Indrajit Banerjee, Director, Knowledge Societies Division, Communication and Information Sector, UNESCO.

Annex I. Agenda of the International Conference
Annex II. The New Delhi Declaration