

EDICT 2010: Enabling Access to Education through ICT

27 – 29 October 2010

India Habitat Centre, New Delhi, India

Co-organized by

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Background

Persons with disabilities in India are often left out of mainstream schools and universities due to a variety of reasons, primarily the lack of awareness amongst educational organizations and teachers, near absence of infrastructural resources and lack of training in this regard. It is believed that barely two per cent of the 70 million disabled persons have access to education in India. Unless we take special efforts to remedy this situation by equipping teachers, educational institutions and the entire social infrastructure to adopt innovative, cost effective and technology based resources such as assistive technologies, ubiquitous Web, multiple platforms, social networks, online libraries and digital resources etc, they will continue to remain excluded from social participation.

Conference

Edict 2010 was organised by the Centre for Internet and Society, in collaboration with G3ict, UNESCO, ITU, WIPO, The Deafway Foundation, DEF and SPACE with the gracious support of The Hans Foundation and the Department of Information Technology, MICT, New Delhi. The main aim was to highlight existing policy and practical barriers for students and educational institutions in developing countries, showcase ICT based solutions which are presently being adopted around the world and point to existing knowledge resources and emerging trends in education. The conference focused on enabling education at all levels: primary, secondary, tertiary and



distance education and vocational training. The success of the conference was characterised by the fact that it brought together a wide range of stakeholders, including industry, special and mainstream educators, disability organisations, policymakers from the ministries of education (MHRD) and information technology (DIT), Technology developers and researchers, librarians and persons with disabilities, from several countries like India, USA, Switzerland, Japan, Nepal and Bangladesh, who were all experts with vast experience. Consequently, the sessions were extremely interactive, with a lot of inputs from the participants and it was commonly acknowledged that the sharing of information and learning was equal for both participants and speakers. The break-out sessions resulted in a lot of recommendations and insightful observations from the four groups.

The conference was inaugurated by Smt Vibha Puri Das, Secretary, Department of Higher Education, MHRD. Other special guests were Dr.Indrajit Banerjee, Director, Information and Communications sector, UNESCO and Mr. Andrew Tu from WIPO. Smt. Das released the first copy of the book, '[e-Accessibility Policy Handbook for Persons with Disabilities](#)', a book based on the G3ict-ITU on line e-Accessibility Toolkit for Policy makers , which was edited and published by CIS. Dr.Banerjee received the first copy. Smt.Das delivered the key note address; she outlined the situation with respect to education of persons with disabilities in India and highlighted some of the initiatives of the Ministry of Human Resource and Development. She especially drew attention to the NMEICT project of the MHRD, which is a huge fund for supporting initiatives which used ICT to promote higher Education through ICT. Till now, NMEICT has funded one disability related project for conversion of college level textbooks into daisy format in four languages. The project is being undertaken by IIT Calcutta. She concluded by inviting all persons and organisations present in the conference to apply to the fund for specific projects and said that the ministry would be happy to look at proposals for promoting education for persons with disabilities.

The key note address was followed by remarks from Dr.Banerjee, who gave an outline of UNESCO's initiatives around the world on education and underscored the importance of attaining the Milleneum Development Goal of Education for all for all developing countries and UNESCO's commitment to support countries in their efforts to do so. Mr.Andrew Tu talked about WIPO's commitment to securing access to reading materials for persons with print disabilities in accessible formats around the world and focused on the deliberations on a treaty for the print impaired at WIPO, with special emphasis on the Stakeholders' Platform initiative of WIPO.This was followed by a presentation by Axel Leblois, Executive Director G3ict, on the dispositions of the UNCRPD relating to digital accessibility.

Over the three days, there were presentations from Twenty-nine experts on a variety of topics, ranging from discussing challenges and solutions in educational institutions, to technology development and policy formulation and implementation. The profiles of the speakers are given in Annexure A. The conference was attended by 77 participants and was also attended by a large number of participants from other conferences taking

place in the hotel from time to time. The list of the 77 participants is given as Annexure B. The agenda of the three days is given below.

Agenda

EDICT2010: Enabling Access to Education through ICT-

How can accessible information and communication and assistive technologies for persons with disabilities be best deployed in schools and universities?

October 27-29, 2010

India Habitat Centre,

New Delhi, India

Enabling Access to Education through ICTs: How Can Accessible Information and Communication and Assistive Technologies for Persons with Disabilities be Best Deployed in Schools and Universities?

Wednesday, October 27, 2010

08.30 – 09.30 Registration opens

09.30 – 11.00 Opening session

- Welcome note from the organizers, CIS, G3ict, UNESCO, ITU and WIPO
- Key note address by Smt Vibha Puri Das, Secretary, Higher Education, Ministry for Human Resource and Development
- Introductory remarks by Dr.Indrajit Banerjee, Director, UNESCO
- Axel Leblois, Executive Director, G3ict

ICT Accessibility and Reasonable Accommodation in the Convention on the Rights of Persons with Disabilities, Implications of Article 9 and 24 for State Parties and Education Ministries

Moderator: Nirmita Narasimhan

11.00 – 11.30 Tea break

11.30 – 13.00 Why Accessible and Assistive Technologies Matter? – An Overview of ICT Barriers to Access and Solutions

This session showcased live examples and case studies of ICT accessibility issues and solutions in education. The speakers covered topics such as access to websites, published works and libraries, classroom materials and tests, hardware and software from school and university perspectives

Speakers

- Cyndi Rowland, Associate Director, Center for Persons with Disabilities

Visible and Hidden Barriers for Students and Faculty

- Dr. Sushmita Mitra, Director, Student Support Services, National Institute of Open Schooling

School Textbooks and Educational Resources – Making Distance Education Work

- Dr. Hemalata, Deputy Director, NCDS, IGNOU

Information Communication Technology (ICT) for Inclusion

- James Thurston, Senior Strategist for Global Policy and Standards, Microsoft

Accessibility Guide for Educators

Q & A discussion

Moderator- Ambassador Swashpawan Singh

13.00 – 14.00 Lunch break

14.00 – 15.30 Beyond Accessibility: Implementing Assistive Technologies for Students with Disabilities

This session included a demonstration of various assistive technologies for computers and mobile phones by developers from Code factory and a discussion of associated barriers and opportunities, discussion on policies on education for students with disabilities, challenges in universities, open knowledge resources and assistive technologies for the deaf

Speakers

- Dinesh Kaushal and Mukesh Sharma, Code Factory

World of Assistive Technologies

- Prof S R Mittal, Professor in Education, Department of Education, University of Delhi
- Sunil Abraham, Executive Director, Centre for Internet and Society

Open Educational Resources

- Arun Rao, CEO, The Deaf Way Foundation

ICT Applications in Deaf Education

- Prof Tanmoy Bhattacharya, Coordinator, Equal Opportunities Cell, Delhi University

Moderator: Mrs. Mala Ramadurai

15.30 – 16.00 Tea break

16.00 – 17.30 Shifting Paradigms for Accessible and Assistive Solutions: Can India Schools Leapfrog Current Solutions?

This session highlighted current and potential new developments in technology which could accelerate inclusion in education.

Speakers

- Prabir Purkayastha, President, Centre for Technology and Development, Chairperson of Knowledge Commons, Vice President, Delhi Science Forum and Chairperson of Program Review Committee on Perception and Control, ASTeC Programme, Ministry of Information Technology

Open Source Software and Proprietary Software, the Need for Interoperability

- Susan Schorr, Head, Special Initiatives Division, International Telecommunication Union BDT

Connecting Schools: Global Challenges and Solutions

- Claudio Giugliemma, President, Dominic Foundation (Switzerland)

Cloud based assistive solutions

- Professor Kenryu Nakamura, Research Center for Advanced Science and Technology

University of Tokyo

99 Tips in My Pocket In-Class Use of Mobile Phones for Students with Disabilities

Moderator: Noopur Jhunjunwala

- 17.30 Adjournment, Announcements for Next Day Program

Thursday, October 28, 2010

09.30 – 11.00 Morning Session – UNESCO-CIS Case Studies. Overview of accessible and assistive ICT solutions for Education.

This session covered a report on the UNESCO-CIS study on the level of adoption of ICT for education in the Asia Pacific region, presentation of how an open source hindi screen reader had been adapted to create a Nepali screenreader, presentation of the activities of Space and Inclusive Planet which were two of the organizations which had been chosen for the UNESCO case studies.

Speakers

- Nirmita Narasimhan, Programme Manager, Centre for Internet and Society

Presentation on UNESCO case study

- James Mathew- Insite, Project Coordinator of Insight

Insight ICT for the Differently abled

- Professor Mamoru Iwabuchi, Research Center for Advanced Science and Technology University of Tokyo

Development of ICT based Assistive Technology for Minority Languages

- Sachin Malhan, CEO and Co-founder, Inclusive Planet

The Global Social Library for the Visually Impaired

Moderator: Dr.Indrajit Banerjee

11.00 – 11.20 Tea break

11.20 – 13.00 Plenary Session with DAISY Speakers - The New Frontier for Access to Published Works: Success Stories and Roadblocks.

The session explored ways in which technology had facilitated new ways of publishing and accessing knowledge and dwelt on the important role of copyright in global dissemination of content.

Speakers

- Mr. Andrew Tu, Senior Advisor to Assistant Director General of WIPO
Facilitating Access to Copyright Works for Visually Impaired Persons – The WPO VIP Initiative

- Hiroshi Kawamura, President, DAISY Consortium
Daisy Consortium Presentation

- Viji Dilip, International Program Manager, Bookshare
The Bookshare Success Story

- Mr. Vivek, Mehra, MD and CEO Sage publications

- Dr. Sam Taraporevala, Associate Professor and Head of Department of Sociology,
St. Xavier's College, Mumbai

India's situation

- Discussion and Q & As

Moderator: Susan Schorr, Head , Special Initiatives Division, International
Telecommunication Union BDT

13.00 – 14.00 Lunch break

14.00 – 15.30 DAISY Best Practices for Educators

Implementing the DAISY standard in education has brought multiple benefits to educators and students alike. The panel covered latest trends, developments in DAISY use and practices.

Speakers

- George Kerscher, Secretary General of the DAISY Consortium and President of the
International Digital Publishing Forum

Latest Technical Developments and Sample Implementations such as in DAISY
Mathematics

- Prashant Ranjan Verma, Consultant, DAISY Consortium

Overview of Hardware and Software Tools for Authoring and Playback of DAISY Books

- Birendra Raj Pokharel, President, National Federation of the Disabled-Nepal,
Convener, DAISY Nepal Foundation, Vice Chair, DPI Asia Pacific and Chair, DPI South
Asia

Sharing of Experiences on Implementation of DAISY Book Production and Distribution
in Developing Countries

- Michael Katzmann, Chief of the Materials Development Division, National Library
Services for the Blind and Physically Handicapped, USA

Best Practices in Providing Accessible Materials to Persons with Disabilities

- Mr. N Ravi Shanker, Joint Secretary, Department of Information and Technology,
Ministry of Communications and Information Technology

Moderator: George Abraham, CEO, Score Foundation

15.30 – 16.00 Tea break

16.00 – 17.30 Break-out Sessions

Guidelines: Sunil Abraham

In this session, the participants were split into four groups, according to their interest and expertise and were asked to discuss and present their report in four slides on the following question during the plenary session on the next day:

1. Major take away points from the case studies and presentations
 2. Top 3 key success factors
 3. Top 3 obstacles
 4. Policy and program recommendations
- Group 1: Primary education
 - Group 2: Secondary education
 - Group 3: Tertiary education
 - Group 4: Vocational and lifelong learning

Moderators and rapporteurs were chosen by each group

17.30 Adjournment

19.30 Dinner for all participants at the Gymkhana Club co-organised by Daisy Forum of India, Bookshare and CIS

Friday, October 29, 2010

09.30 – 11.00 Developing an ICT Accessibility and Assistive Technology Support Ecosystem for Educators

The discussions revolved around the topics of centers of excellence and peer support, training the trainers, employing disabled persons as trainers, resources for field practitioners, role of universities, standards, public procurement with international and national examples.

Speakers

- Cyndi Rowland, Associate Director, Center for Persons with Disabilities
Impact of Lack of Accessible ICTs for Students with Disabilities – An International Perspective
 - Arun Mehta, President, Bidirectional Access Promotion Society
Opportunities and Challenges for Education in a Neuro-Diverse World
 - Joyojeet Pal, Visiting Assistant Professor, Polytechnic Institute of New York University and a Computing Innovation fellow at University of Colorado Boulder
Developing a curriculum in Disability Studies and Assistive Technology for higher education
 - Shanti Raghavan, Founder and Managing Trustee, Enable India
Centres of Excellence, Train the Trainers, Employing Disabled Persons as Trainers
- Moderator: Geet Oberoi

11.00 - 11.20 Tea break

11.20 – 13.00 Wrap-up session

Mr.S.S.Padmanabha, Director, Sarva Shiksha Abhiyan, State of Karnataka

Presentation on the implementation of SSA for special and integrated education in Karnataka

Presentation of group work, feedback and action points.

This session was presided by officials of MHRD: Mr.S.C.Kunthiya, Joint Secretary, Elementary Education, Ministry of HRD and Mr.Harvinder Singh, Director (TEL)

The four groups gave their presentations from the group work. Details are given in the conclusions section.

13.00 – 14.00 Closing lunch

Conclusion

The conference was highly engaging and enabled the attendees to explore the challenges and opportunities and equipped them with the tools needed to implement ICT solutions within their organizations. There was a very high level of expertise amongst educators in the conference which was apparent from the discussions, there were persons who talked about education for the blind, deaf, persons with mental disabilities etc with great authority and put forward insightful perspectives. From a technology standpoint, there was a notion that because of the huge investment which the Government was making in broadband, it would soon be possible to implement all the solutions which were being showcased in the conference and being deployed in other countries. There are many opportunities to leapfrog in India. In fact, many speakers considered cloud based technologies being adopted in school systems where there was broadband infrastructure available. There was a common consensus amongst all members present in the conference that universal accessibility could only be achieved with the involvement of all stakeholders; public-private partnership is key to ensuring that all private services and technology solutions are also accessible to persons with disabilities. Participants were very impressed with the innovative teaching methods and technologies in other countries, especially in Japan.



General Recommendations

- Calls for proposals for funding projects should be widely publicised: It was a common feeling of all the participants that even though there were several funds which could be tapped into for projects, there was little information about where these funds existed, how they could be applied for and used to fund different kinds of projects. Government should make more effort to ensure that information about funding opportunities should reach intended beneficiaries.
- Accessibility should be integrated into existing education projects: While it is important to initiate specific accessibility related projects, it is equally necessary to integrate accessibility into existing projects such as introducing creation and distribution of accessible content in existing ICT school programmes.
- Focus to be given to training students with disabilities: all the groups felt that training was a huge issue and that support for students through training was required. SSA Karnataka gave a good presentation showing how it addressed the issue of training on a large scale. The groups highlighted that the UNCRPD placed an obligation on the government to raise awareness amongst persons with disabilities.
- Priority attention should be given to the development of language based tools for all Indian languages, especially minority languages. This includes development of optical character recognition (OCR) and text to speech (TTS) software in different languages. This is critical for all levels and forms of education.
- Access to broadband services for persons with disabilities at affordable prices to be promoted to enable effective use of technology to access educational content.
- need to create accessible content and accessible open resources: . It was stressed that all study modules used by educators, and open educational resources must be in accessible formats in order to have the widest outreach to students. Cyndi Rowland gave an example where Federal grants would not go to programmes which created non accessible content.
- Public procurement should be used to promote accessibility.
- Government should focus on early intervention in education because very few disabled children actually enrolled in schools and even amongst those that enrol, a very miniscule percentage go on to complete secondary and higher education.

- Need to have a well developed ecosystem: All schools must be equipped with resources to teach disabled children.
- Solutions and teaching methods must be innovative and highly individualised. Common approaches to teaching disabled children are less likely to be successful.
- Periodic and ongoing trainings must be given to field practitioners with special emphasis on sharing information about solutions which have been successful or have failed in the past.

Specific Recommendations

- Training colleges for educators should include a course on disabilities and education for students with disabilities.
- Children with disabilities in CBSE, ICSE and all state boards should get at least three years to complete class 10th and 12th examinations.
- Children with disabilities should be allowed to give examinations with computers and in formats of their choice.
- Each child with a disability should get compulsory training in the use of computers using appropriate assistive technology and be provided these technologies free of cost or at subsidised rates.
- The government should launch a mandatory ICT training programme for all teachers in rural and urban areas to train them in the use of assistive technologies.
- Course materials for all classes should be provided in digital and other accessible formats in all schools for children with disabilities.
- NMEICT should fund development of text to speech software in all Indian languages so that the vast majority of Indian children who cannot read or understand English can continue to study in their native language; it is strongly recommended that such development projects also be entrusted to companies and organisations directly who have expertise in this area and should not be conditional on working with an IIT, IISC or other similar institution. The NMEICT should also fund other projects for the disabled, such as for content creation and so on.
- It is recommended that the Digital Library project, which is a praiseworthy and extremely important project for creating open resources to all existing regional and English books should be made accessible since it has the potential to benefit a very large number of persons with disabilities. At the moment, the project involves all the steps which are required to create accessible books, i.e., scanning and OCRing, however, despite the fact that OCR is done, the books are still uploaded as image files and not as accessible word or text or html files which can be read using screen readers. If this were done and we had access to TTS in Indian languages, we would have access to all the traditional Indian literature and manuscripts, which are invaluable to a researcher.
- It is strongly recommended that the web sites of all educational institutions, both public and private should be made accessible so that persons using screen readers can access information about the courses, admissions, read about the organisations and apply on line for admissions. It is also recommended that persons with disabilities should be given the flexibility to take on line examinations and that these should be designed in an accessible manner.
- It is recommended that all educational institutions and libraries should be made physically accessible for persons using wheelchairs.

What our Speakers and Partners Had to Say

- **Axel Leblois**, *Founder and Executive Director, G3ict*

"G3ict was most pleased to organize this very effective workshop with CIS: all stakeholders required to implement the dispositions of the Convention on the Rights of Persons with Disabilities in matters of accessible and assistive technologies in Education actively participated. Disabled Persons Organizations, governments, industry, schools, universities administrators and educators engaged in a very dynamic and practical exchange of experience which created a great learning opportunity for all participants. It also demonstrated that solutions, funding and expertise can be leveraged in India to leapfrog current implementation methods for accessible and assistive technologies. Many participants look forward to build on the momentum of the workshop to develop an ongoing national forum on accessible and assistive ICTs in education. It was clear from the discussions held with government officials that private-public cooperation including industry, education institutions and government agencies are likely to emerge as a result of this dialogue. A most inspiring workshop, among the most successful that G3ict has been involved with in terms of engaging key ICT accessibility stakeholders at a national level".

- **Joyojeet Pal**, *Visiting Assistant Professor, Polytechnic Institute of New York University and a Computing Innovation fellow at University of Colorado Boulder*

"There is an urgent need to teach disability studies in India across all levels of school and university. Ignorance and discrimination are so high that even the media does not attempt to mask its poor and misinformed portrayal of disabled people. This conference has started a welcome conversation in that direction."

- Dr. **Cyndi Rowland**, *Associate Director, Center for Persons with Disabilities*

"This meeting brought together an amazing array of individuals that included those with disabilities, those in education, those in Ministry positions, and experts from India and abroad. The energy was palpable and the work that began at this meeting will be felt throughout India for years to come. It is clear that this will be the first of many transformative meetings sponsored by CIS.

Annexure A - Profiles of Speakers

Axel Leblois, Founder and Executive Director of G3ict

Axel Leblois is the Founder and Executive Director of G3ict – the Global Initiative for Inclusive Information and Communication Technologies, a Flagship Advocacy Initiative of the United Nations Global Alliance for ICT and Development (UN GAID). Prior to creating G3ict, Axel Leblois spent over 25 years at the helm of information technology companies in the United States including as CEO of Computerworld Communications, CEO of IDC – International Data Corporation, President of Bull HN Worldwide Information Systems – formerly Honeywell Information Systems, CEO of ExecuTrain and co-founder and President of W2i, the Wireless Internet Institute. Axel Leblois is a Fellow of UNITAR, the United Nations Institute for Training and Research, and founding trustee of its North American affiliate CIFAL Atlanta. Over the past five years, Axel Leblois, as President of W2i, has developed several capacity building programs for the United Nations, including with the UN ICT Task Force, InfoDev (World Bank) and UNITAR in the context of the World Summit on the Information Society. In 2006, the Steering Committee of the Global Alliance for ICT and Development chaired by Craig Barrett, Chairman of the Intel Corporation, selected W2i's proposal to form G3ict to promote and help implement the digital accessibility agenda of the Convention on the Rights of Persons with Disabilities in cooperation with industry, international institutions, academia and organizations representing persons with disabilities. Axel Leblois holds an MBA from INSEAD and is a graduate of Sciences Po Paris. Write to him at axel.leblois@g3ict.org.

Cyndi Rowland, Associate Director, Center for Persons with Disabilities

Dr. Cyndi Rowland is the Associate Director at the Center for Persons Disabilities (CPD) housed at Utah State University. The CPD has a special distinction as one of only 68 University Centers of Excellence in Disability Research, Service, and Education across the U.S.A. The CPD is nationally known for its work on the accessibility of both the built environment and I CT. The focus of Dr. Rowland's expertise is accessible I CT. She directs WebAIM, as well as the National Center on Disability and Access to Education (See www.WebAIM.org and www.NCDAE.org), both viewed as important resources in accessible I CT. Dr. Rowland has engaged in research, tool development, education, as well as policy and standards work throughout her projects at national and international levels. She also participates with other groups in collaborative efforts to improve the accessibility of I CT worldwide. One of these is the National Public Inclusive Infrastructure (See www.NPII.org) which is working to create assistive technology that can live in the computing cloud for anytime, anywhere access for anyone by building accessibility and extended usability directly into the Internet's infrastructure.

Dr. Sushmita Mitra, Director, Student Support Services, National Institute of Open Schooling

Sushmita Mitra has a Ph.D. (Educational Technology) from IIT, New Delhi. She has been associated with the National Institute of Open Schooling, India right from its inception, and had experienced the unfolding of open schooling from concept to reality.

She holds the position of Director (Student Support Services) in NIOS. She was on deputation to Indira Gandhi National Open University (IGNOU) in the project titled Distance Education Programme (DEP) of District Primary Education Programme (DPEP), and to Indian Society for Technical Education, New Delhi in a Swiss Development Agency's Project for development of Technical Learning materials in Computer Science, Engineering and Electronics and Electrical Engineering. She is a Consultant for Commonwealth of Learning (COL), and has a number of publications to her credit. Email: sushmitam@hotmail.com

Dr.Hemalata, *Dy. Director,NCDS-IGNOU*

REHABILITATION QUALIFICATION: Special Educator (Mental Retardation);
Registration No-A05945 Working in National Centre for Disability Studies, IGNOU as Director.

James Thurston, *Senior Strategist for Global Policy and Standards, Microsoft*

James Thurston is a Senior Strategist for Global Policy and Standards at the Microsoft Corporation. As part of Microsoft's Trustworthy Computing Group, he contributes to the company's efforts to make products and services accessible for consumers with disabilities and the aging. James works with governments, consumer groups, non-governmental organizations, standards bodies and industry associations around the world to develop public policies and programs that promote digital inclusion through accessible technology. Prior to joining Microsoft, James affected global technology policy issues through several positions. He worked with the world's leading IT companies on a broad range of global regulatory issues at a high tech industry association. He was responsible for economic and technology policy for a United States Senator. He managed a technology deployment program for the National Institute of Standards and Technology of the United States government. James received a Bachelor of Arts degree from the University of Maine and both a Masters of Arts and a Masters of Public Administration from the University of Washington.

Srinivasu Chakravartula, *Accessibility Manager, Yahoo India*

Srinivasu Chakravarthula – graduated in Computer Science and is certified in 'assistive technologies'. He started his career as Head of the Braille Production Unit at National Association for the Blind, Karnataka Branch, Bangalore. He then moved on and taught Computer Science at The Manik Public School, Bidar and also set up the Computer Training Centre at Hyderabad and Maniknagar, Bidar. Srinivasu is currently working for Yahoo! India as Accessibility Manager and is responsible to lead and evangelize accessibility and its initiatives across Yahoo! India and South East Asia. Recently he spoke at Techshare India 2010 on Need for Web Accessibility in Developing Countries – Yahoo! Initiatives. Srinivasu is a member of World Wide Web Consortium (W3C) India's National Advisory Board and NASSCOM's Disability Working Committee and he is responsible to streamline accessibility related activities. He is also a member of the core committee for Yahoo! Employee Foundation India (YEFI). Srinivasu is associated with the social sector through the National Association for the Blind, India; Enable India,

Shri Manik Prabhu Sikshan Samiti and Success World. His hobbies include blogging, tweeting, listening to classical music, playing chess and swimming.

S R Mittal, *Department of Education, University of Delhi*

Ph.D. Awarded from Garhwal University on the topic "A Comparative Study of Personality Traits of Educated Blind & Sighted Youth. Working as Professor in Education, at Department Of Education University Of Delhi, Delhi-110007.

Arun Rao, CEO, *The Deaf Way Foundation*

Mr. Arun Rao is a Social Entrepreneur with passion for improving service delivery and creating policy to empower disadvantaged minority communities, specifically disabled people with a focus on deaf community issues. For the past 20 years, Mr. Arun C. Rao has been closely involved with the deaf community; he himself is a father of a deaf child. In 1990, he began a self help project for deaf youth and now oversees 62 deaf groups across the country. In 1996 he launched "The Deaf Way" a monthly publication for the Indian deaf community. This publication is distributed free across India to all institutions for the deaf. In 1997, he was on the working group of research on Indian Sign language culminating in creation of a comprehensive dictionary of ISL. Mr. Arun C. Rao also pioneered HIV/AIDS awareness programs for the deaf in 1997; setting up AHEAD (Awareness and Health Education for Adult Deaf). In 2001, he pioneered research in Sexual abuse of deaf persons. In that same year he pioneered the concept of Bi-lingual education with the inception of "The Deaf Way" Education centers. In 2002, he was named to the RCI expert committee on deafness. He founded the National Association of the Deaf in India in 2003. Serving as its President till 2007. He was instrumental in the founding process of the World Association of Sign Language Interpreters of which he remained a Governing Council member till 2007. He is currently President of the Welfare Association of Sign Language Interpreters in India and is engaged in advocacy work for the promotion of the profession of Sign Language interpreting. He has also presented papers on deaf education and Indian Sign language at numerous national and international events At present, Mr. Arun C. Rao, CEO The Deaf Way, is managing 6 Education centers across the country which include 93% deaf staff, both management and faculty.

Prof. Tanmoy Bhattacharya, *Coordinator, Equal Opportunities Cell, Delhi University*

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Prabir Purkayastha, *President, Centre for Technology and Development, Chairperson of Knowledge Commons, Vice President, Delhi Science Forum and Chairperson of Program Review Committee on Perception and Control, ASTeC Programme, Ministry of Information Technology*

Prabir is the president, Centre of Technology and Development, chairperson of Knowledge Commons, vice-president of the Delhi Science Forum and chairperson of the Program Review Committee on Perception and Control, ASTeC Programme, Ministry of Information Technology besides being a member of the National Steering Committee in the aforesaid ministry. He has done technical papers on real time software and optimisation, written extensively on policy issues on topics relating to science, technology, power and telecommunications that appeared in leading magazines and journals like Frontline and Economic and Political Weekly. He is also a co-author of Uncle Sam's Nuclear Cabin along with Ninan Koshy and MK Bhadrakumar, Leftword, New Delhi 2007 and Enron Blowout: Corporate Capitalism and Theft of the Global Commons with Prabir Purkayastha and Vijay Prashad, Leftword, New Delhi 2002. Prabir has also given lectures in the World Social Forum 2003, 2004, 2005 and 2007 and Nayuduamma Memorial Lecture in 2009. He was also invited to talk in the Alexandre de Gusmao Foundation and the International Relations Research Institute in the IBSA Academic Seminar conferences organised in Brasilia, 2006 and Rio de Janeiro, 2008.

Mr. Mandar Naik, *Director - Platform Strategy with Microsoft India*

Mandar Naik has been with Microsoft for over 10 years in various technical and leadership roles. He is currently Director , Platform Strategy with Microsoft India and is responsible for driving the value of the Microsoft Platform with customers across all segments. He has spent extensive time working with customers globally, helping them realize their potential through the optimum usage of existing capabilities & investments through interoperability, while embracing newer innovations like the Cloud. In his current role, Mandar spends a lot of time evangelizing the emerging Open Source Ecosystem on Microsoft's Client, Server and Cloud platforms and with telling the Microsoft "Openness" story around the business benefits of Microsoft's approach to standards, interoperability and open source software.

Susan Schorr, *ITU, Regulatory Officer of the Regulatory and Market Environment Division of the Telecommunication Development Bureau, ITU*

Susan Carroll Schorr joined the ITU in March 2000, serving as the Regulatory Officer of the Regulatory and Market Environment Division of the Telecommunication Development Bureau (BDT) of International Telecommunication Union (ITU). Her work focused on the use of market liberalization to promote universal access to ICT. She was named Acting Head of the RME in January 2008. Ms. Schorr, who organized the annual ITU Global Symposium for Regulators, also led the ITU team developing the joint ITU-infoDev ICT Regulation Toolkit. She is the architect of the Global Regulators' Exchange (G-REX), an online forum and hotline for regulators and policy makers, and developed the annual ITU publication, Trends in Telecommunication Reform, which has addressed key regulatory issues such as Interconnection Regulation, Effective Regulation, Promoting Universal Access To ICTs, Licensing in an Era of Convergence, Regulating in a Broadband World and NGN Regulation. She has also authored and edited a series of BDT case studies on effective regulation, interconnection dispute resolution, licensing, and convergence regulation as well as case studies providing feedback to

regulators from investors, consumers and the private sector. Ms. Schorr joined the BDT Special Initiatives Division (SIS) in January 2009, and has leveraged her wealth of experience in the information and communication technology (ICT) regulatory domain to promote access to and use of ICT by the Special Initiatives populations: women and girls, youth and children, indigenous peoples, persons with disabilities and people living in underserved and rural areas. Since joining SIS, Ms. Schorr has launched the latest BDT flagship initiative, Connect a School, Connect a Community, focused on connecting schools to ICT so that schools can also serve as community ICT centres for the Special Initiatives populations. Ms. Schorr has also contributed to the development of the joint ITU-G3ict e-Accessibility Toolkit, promoting the ICT accessibility agenda of the UN Convention on the Rights of Persons with Disabilities. Prior to joining BDT, Ms. Schorr practiced antitrust law as an associate in the Washington, D.C. law firm of Howrey & Simon, LLP (now Howrey Simon Arnold & White LLP). She graduated from the Georgetown University Law Center in 1987 cum laude and is a member of the California and D.C. bars. Ms. Schorr has also worked as a telecommunications journalist.

Claudio Giugliemma, *President, Dominic Foundation (Switzerland)*

Claudio Giugliemma (Swiss citizen born in 1966) is the founder and BoD Member of QualiLife Inc., a Swiss company specialized in the development and distribution of award-winning software solutions for the Health Care market. Claudio is a steering committee member of AIA (Assistive Interoperability Alliance) as well of the Voice for Innovation organization. In 2005, Claudio founded and is the president of Dominic Foundation, a Swiss Foundation with the goal of providing fully accessible and sustainable ICT for people in the Digital Divide group. In the same year, he has been asked to join the European Voices for Innovation organization. In 2009, Claudio joins as active member the ITU (International Telecommunication Union), which is part of the United Nations, as well as the G3ict (the Global Initiative for Inclusive ICTs), the UNESCO and the DCAD (Dynamic Coalition on Accessibility and Disability). With over 20 years of experience in ICT development, in the past twelve years he has focused with great success on eHealth, and in particular on accessibility and usability of ICT with great experience as CEO and CTO. In the year 2000, he founded QualiLife and as CEO for over 9 years he took the company to an international leading position; the company main goal is to provide a new generation of Unified Communication solutions for the Health Care market that can make all technologies fully accessible to anyone, regardless of age, location, ability and knowledge. This new approach has measurable increased the use of ICT in several areas, including the home, the work environment, in hospitals, retirement homes, and so on. Claudio Giugliemma believes that technology should serve the people, not the opposite; therefore he started to work and strongly supports ITU activities since 2008 with the WTISD-08 in Cairo. Write to her at claudio@dominic-foundation.org.

Professor Kenryu Nakamura, *Research Center for Advanced Science and Technology, University of Tokyo*

Kenryu Nakamura is a professor at RCAST (Research Center for Advanced Science and Technology) of the University of Tokyo, Japan. Prof. Nakamura has been conducting applied research of two types of technology to support people with disabilities: (1) assistive technology (AT) and (2) alternative and augmentative communication (AAC). He has also created a database of e-AT (electronic- and information technology-based assistive technology), namely, AT2ED. He is currently interested in good use of generally available mainstream technology, such as PC and mobile phones, as a form of AT.

Dr. Indrajit Banerjee, *Director, UNESCO*

Mr. Banerjee holds a Bachelor of Arts degree from the Sri Aurobindo International Centre of Education in Pondicherry, India (1985). He also obtained a Master of Arts degree from the Jawaharlal Nehru University, New Delhi, India (1988). Mr. Banerjee completed his doctoral degree at the Sorbonne University, Paris, France in 1994. Since January 2004, Mr. Banerjee was the Secretary-General of the Asian Media Information and Communication Centre (AMIC) in Singapore until his appointment as the Chief of Section, ICT in Education, Science and Culture at the Communication and Information sector of UNESCO in July 2009. Mr. Banerjee is an internationally recognized media and communications scholar and has edited ten books and published articles in some of the top international journals in the field of communications. He has also presented papers at over 50 international conferences around the world. After completing his doctoral degree, Mr. Banerjee undertook a stint as a post-doctoral research fellow at the University of Quebec in Montreal (UQAM). Following his term at UQAM, he was a faculty member at the University of Ottawa, the University Science Malaysia and the Nanyang Technological University in Singapore.

James Mathew- Insite, *Project Coordinator of Insight*

James is the Project Coordinator of Insight, an ICT centre for the differently abled, which was established in 2007. Insight is currently the most sought after place for ICT training by the Visually Challenged in Kerala. Apart from training, Insight also develops assistive technology, produces audio content, runs an activity lab for children with special needs etc. He was associated with the Free Software Foundation of India before joining Insight.

Professor Mamoru Iwabuchi, *Research Center for Advanced Science and Technology University of Tokyo*

Mamoru Iwabuchi is an associate professor at RCAST (Research Center for Advanced Science and Technology) of the University of Tokyo, Japan. Dr. Iwabuchi has been conducting applied research of two types of technology to support people with disabilities: (1) assistive technology (AT) and (2) alternative and augmentative communication (AAC). He has developed a PC-based multilingual communication system, UNICORN (UNIversal Communicator Over Remote Networks), a mobile phone-based communication tool (e-PP: Electronic Personal Profiler), and two visual timers (Lotus and Uz). He is interested in development of AT using existing and generally available mainstream technology, such as PC and mobile phones.

Sachin Malhan, *Inclusive Planet Services, CEO & Co-Founder*

Inclusive Planet is a venture that creates scalable technology and design solutions to the digital accessibility challenges of the differently-abled. We are committed to the vision that the digital world, from its simplest incarnation as an information directory to heavy web 2.0 and 3.0 sites and sophisticated workplace solutions can be made 'accessible' by elegant design and technology solutions. Aside from the accessibility consulting and design services that we provide to site owners and corporates we have create offerings for print-impaired users themselves – the first of these is inclusiveplanet.com which enables the blind to share and access accessible content and enables members to have conversations, make friends and create their own content channels. Inclusiveplanet.com has 4000+ members from over 75 countries sharing more than 10,000 conversations and 16,000 files of accessible content.

Viji Dilip, *International Program Manager, Bookshare*

Ms. Viji Dilip is Bookshare International Program Manager. Viji brings more than eighteen years of experience in the for-profit and non-profit sectors, as well as a unique combination of education and work expertise in both India and the U.S. to her work on developing Bookshare India. She has volunteered for many years with Vidyavrikshah, an organization serving the visually impaired in India, and with Recording for the Blind and Dyslexic in the United States. These experiences have given her a keen awareness of the challenges faced by India's underserved segments of society and of the need to provide tools that can empower people with disabilities to become independent and strong contributors to society. She has an MBA from San Jose State University, a CPA degree from AICPA and is a member of the Institute of Chartered Accountants of India.

Mr. Andrew Tu, *Senior Advisor to Assistant Director General of WIPO*

Mr. Andrew Tu has more than 25 years of experience in various ICT areas, and is a certified project management professional and an accredited ICT security expert. Mr. TU joined WIPO in 1999 as a staff member and has been involved in different ICT projects and activities mostly in collaboration with WIPO international partners and Member States' Offices. He is currently a Senior Advisor to Mr. Trevor Clarke, the Assistant Director General of WIPO on ICT project management matters. He is responsible for all ICT activities of the Culture and Creative Industries Sector and is the Project Manager of the ICT component of the WIPO initiative for Visually Impaired Person (VIP). He can be reached by email at andrew.tu@wipo.int

Vivek Mehra, *MD & CEO SAGE Publications India Pvt. Ltd.*

Mr. Vivek Mehra comes from a family of textile manufacturers who pioneered silk screen printing in India. His business education began in family owned textile mills long before formally beginning in New York. On his return to India in 1987 he spent four years working closely with the Central Food Technology Research Institute of India, Mysore and helped setup India's first commercial fruit dehydration and preservation unit in Bangalore. The Government of India acknowledged his efforts and thanks to him thousands of farmers across the grape growing belt of Central India today reap the

benefits. In 1990 he was awarded the Vijayshree by the Government of Maharashtra for simplifying complex dehydrating technology thus ensuring a brighter future for even small farmers. His work on minimizing the use of Sulphur based preservatives in dehydrated food has been acknowledged as a first in India. In 1999 he left the field of food processing to spend time on researching chemical formulations that had thus far remained the preserve of large corporations in the developed world. His work on ultraviolet detectable inks and gel based stamping systems laid the foundation for these product lines in India. He pursued his passion for writing by joining hands with IDC Technologies, an Australian company and a market leader in providing workshop based training to engineers and technicians. He set up an India based unit to support the demanding needs of producing courseware for the company. In 2003 he became a trainer and exclusively handled workshops in New Zealand, Canada and UK. He joined SAGE India as Deputy Managing Director in September 2005. He is in the last stages of his Ph.D. in Chemical Engineering, has an MBA in Marketing from Columbia University, New York and a B.Sc. in Textile Technology from the Fashion Institute of Technology, New York. On 1 December 2006, he officially became Managing Director and CEO of SAGE India. Since 1 January 2007, the company's revenues have grown 2.5 times and the profits have grown 3 times. SAGE India now has co-publishing arrangements in 4 regional languages. It sponsors 2 annual lectures—in applied Economics with the Madras Schools of Economics and in contemporary management with the Indian Institute of Management-Ahmedabad. SAGE India's books are routinely launched by the Vice President of India, the Prime Minister of India besides local heads of governments and business leaders. It has been co-publishing books regularly with reputed and international institutions—The World Bank, Asian Development Bank, and IDRC—Canada etc. SAGE India has recently published the first of a series of compilations on the great minds in marketing. The series is called 'Legends in Marketing' and includes the works of Jagdish Sheth, Philip Kotler, Kent Monroe, Richard Bagozzi, Gerald Zaltman, Yoram Wind, Naresh Malhotra and V. Anand. SAGE India publishes around 30 journals which includes globally reputed ones like Indian Economic and Social History Review (IESHR), Indian Journal of Gender Studies (IJGS) and Journal of Emerging Market Finance (JEMF). Its current acquisitions include – India Quarterly: A Journal of International Affairs (Ministry of External Affairs; Government of India), Indian Historical Review (Indian Council of Historical Research) and Global Journal of Emerging Market Economies (Emerging Markets Forum, Washington DC). It has recently signed with Cornell University to launch The Cornell Journal of Economics and Policy in 2011. SAGE India has tied up with various regional partners to co-publish original published works into regional languages. Currently SAGE India titles are being co-published in Marathi, Malayalam, Tamil, Hindi and Bengali. More recently, SAGE India has added another dimension to its publishing programme by signing a memorandum of agreement with the Central Compilation & Translation Press, China to publish Indian management books in Chinese and original scholarly works by Chinese scholars into English. As part of this landmark agreement SAGE India will publish (in English with world rights) a recently published bi-lingual edition of 'Tagore and China' by Prof Tan Chung a leading China scholar. We hope to bring this book out in May 2011 to coincide with Tagore's 150th birth anniversary.

Dr. Sam Taraporevala, *Associate Professor and Head of Department of Sociology, St. Xavier's College, Mumbai Director, XRCVC, St. Xavier's College Member, Sociology Board of Studies, University of Mumbai Member, Executive Council, Braille Council of India Member, General Council, National Institute for the Visually Handicapped (NIVH), Dehradun Chair, Committee on Copy Rights and Publisher Relations, DAISY Forum of India*

Dr. Taraporevala studied in Activity High School, Bombay and did his bachelor's degree from St. Xavier's College, University of Bombay in Sociology and Psychology. He was awarded • The India Open Merit Scholarship three years in a row (1978-1981) • The J. B. Petit Golden Jubilee Scholarship in 1978-79 for third place in the first year BA University Examination • The Curimbhoy Ebrahim Scholarship, 1978-79, for the second highest aggregate from the College at the university's first and second year BA examinations • Government of India National Scholarship two years in a row (1981-1982) for standing eleventh in the University of Bombay's BA Examination. At the post-graduate level, Dr. Taraporevala was awarded a number of scholarships like the K. M. Kapadia Prize in 1983 for ranking first in the university at the master's level as well as the Patrick Geddes Prize and the N. A. Toothi Prize in the same year for Urban Sociology and Social Research Methodology respectively. He completed his PhD from the University of Bombay on Religiosity in the Urban Setting: A Study of Parsi College Students in the City of Bombay with a fellowship from the University Grants Commission. Dr. Taraporevala also completed a Diploma in Human Resource Management from Indira Gandhi National Open University, Delhi in 1991, and in 2002 was awarded the Shri Lalji Mehrotra Foundation Award for Excellence by the National Society for Equal Opportunities for the Handicapped, India. Dr. Taraporevala is currently an Associate Professor and Head of Department of Sociology, St. Xavier's College, Mumbai. As study director for research projects at the department, he directed a number of projects like: • "An Evaluation of the Malaria Prevention and Awareness Programme" for the Impact India Foundation in 2003; • An investigation into social networks of the diamond industry in Bombay for the Department of Economics, Brown University, USA; • A study of port experiences of importers and exporters in Bombay for Metric Knowledge Management Services, Pune; and • "Prospects for Making India's Manufacturing Sector Export-Oriented" for Research and Information Systems for Developing Countries, New Delhi study for the Ministry of Commerce and Industries, Government of India As Honour's programme Coordinator for the Department of Sociology, Dr. Taraporevala organised subject related inter-disciplinary workshops, lecture series, study groups and seminars. He was on a sub-committee of the board of studies, Sociology to draft the final year BA Sociology syllabi for the new courses being offered and in 2005 was co-opted on to this Board. In addition he has served on various special committees including the Staff Council, Infotech Committee and Internal Quality Assurance Cell of St. Xavier's College. As a Member, Board of Studies he has been in charge of curriculum development for Sociology of Media Culture, and Society, Sociology of Human Resource Development and Sociology of Work for Third Year B.A at University of Mumbai. Dr. Taraporevala has been instrumental in setting up the Xavier's Resource Centre for the Visually Challenged, St. Xavier's College of which he

is currently Director with a view towards inclusive education at the undergraduate level. The centre, established in 2003, now boasts of state-of-the-art accessibility facilities for the visually challenged, its basic goal being a holistic development of the visually challenged and social advocacy on accessibility issues for the visually challenged focusing primarily on financial access and access to the printed word. To know more about the work of the XRCVC you can visit www.xrcvc.org. His work at the XRCVC has achieved him many accolades, some of these include the nomination in the 'Spirit of Mumbai Award' by the Hindustan Times acknowledging exemplarity work in the city of Mumbai. He has also been awarded the CNN IBN's Citizens Journalist award recognizing fearless reporting by citizens that is aimed at changing the system for a better tomorrow. He is also the recipient of The NCPEDP- Shell Helen Keller Award 2009 and also the NCPEDP Mphasis Universal Design Awards (Individual Category) 2010.

George Kerscher, Secretary General of the DAISY Consortium and President of the International Digital Publishing Forum

"in the Information Age, access to information is a fundamental human right" -UN 2001
He started innovations in information technology in 1987, and coined the term "print disabled." George Kerscher is dedicated to developing technology to make information not only accessible, but fully functional in the hands of persons who are blind or who have a print disability. He believes that properly designed information systems can make all information accessible to all people, and is working to push the evolving technologies in that direction. As Secretary General of the DAISY Consortium and President of the International Digital Publishing Forum (IDPF), Kerscher is a recognized international leader in document access. In addition, Kerscher is the Senior Officer of Accessible Technology at Recording for the Blind & Dyslexic in the USA, chairs the DAISY/NISO Standards committee, chairs the EPUB Maintenance working group, chairs the W3C's Steering Council for the Web Accessibility Initiative (WAI), and serves on the USA National Instructional Materials Accessibility Standard (NIMAS) Board.

Prashant Ranjan Verma, Consultant Training & Technical Support-DAISY Consortium

Prashant Ranjan Verma is consultant to the DAISY Consortium (www.daisy.org) for training, technical support and software testing and is responsible for conducting training in Digital Talking Books production and providing support to libraries taking up digital talking books production worldwide. He is also the ICT coordinator and faculty at the Resource Centre for Persons with Disabilities at the University of Delhi. His responsibilities include conduct of specialized training programs, production of accessible books, provision of technical advice and distribution of aids and assistive devices to persons with blindness or low vision, hearing impairment and mobility impairment. Mr. Verma is considered to be an expert in the application of Assistive Technology for visually impaired & as such plays an important role in setting up of computer centers for blind across the region, in designing training programs, preparing technical training books & in solving computer related problems of hundreds of blind persons through the Helpline service. He was previously the head of three important departments of NAB Delhi (www.nabdelhi.org) – Technology Training Center, Digital

Library and Braille Press. He is providing consultancy in the establishment of 100 IT labs for persons with disabilities all over India under a project funded by Ministry of Communication and Information Technology, Government of India. Some of his important project assignments are as follows: A. Technology Training Program for Employment Opportunities B. E-text Content Generation Project C. Daisy Digital Talking Book Production Project D. SAFA – Hindi Screen Reading Software Development E. Assistive Technology Helpline F. Braille And Large Print Unit G. Software Testing assignments from IBM, WEBEL, Orakawa Project H. Interest Free Loan Scheme He is the author of five books on assistance for computer training of visually impaired persons and has created several useful tools for persons with visual impairment, see www.prashant.myehome.in. . Recognition: Prashant Ranjan Verma was given the National Award for Empowerment of Persons with disabilities 2007 by President of India for his outstanding performance as a disabled Employee on 3 December 2007. He is the recipient of a gold medal for English text processing at Bilympics 2001.

Michael Katzmann, *Chief of the Materials Development Division, National Library Services for the Blind and Physically Handicapped, USA*

Michael Katzmann was born in Sydney Australia and graduated from the University of New South Wales in 1981 with a bachelor's degree in electrical engineering. He worked to 7 years as a design engineer at the television broadcaster ATN 7. In 1981 he moved to the United States where as a partner and chief engineer of Broadcast Sports Technology he designed camera systems for live television broadcasts such as auto racing, America's Cup yachting, Olympic and Commonwealth games. He designed components for camera systems used by NASA astronauts on the Space Shuttle and International Space Station. Over the years he has one seven Emmy awards for technical achievement. In 2005 Michael joined the National Library Service for the Blind and Physically handicapped, Library of Congress as the head of the Engineering section and in 2006 was appointed as the Chief of the Materials Development Division. In this role he helped guide the design and implementation of the Digital Talking Book program.

Sunil Abraham, *Executive Director, Centre for Internet and Society*

Sunil Abraham is the executive director of the Centre for Internet and Society in Bangalore. He is the founder of Mahiti, a social enterprise aiming to reduce the cost and complexity of information and communication technology for the voluntary sector by using free software. For three years, Sunil also managed the International Open Source Network, a project of United Nations Development Programme's Asia-Pacific Development Information Programme, serving 42 countries in the Asia-Pacific region.

Shanti Raghavan, *Founder and Managing Trustee - Enable India*

Shanti Raghavan is the Founder and Managing Trustee of Enable India, a non profit organization that works for the economic independence and dignity of persons with disability across India. Shanti Raghavan is transforming attitudes towards employment of the disabled by carefully assessing companies' visions and values, competitive pressures, and the skills required to face those challenges. She is creating a new

market in which the needs of the corporate sector are met by a growing group of disabled professionals who will dispel the myths and stereotypes about hiring persons with disability. Shanti holds a bachelor's degree in Electronics Engineering (B.E) from V.E.S.I.T, Mumbai University and master's degree (M.S) in Computer Science from Monmouth University, New Jersey, USA. She has 12 years experience in the software industry. At New Jersey USA she worked with AT&T, Lucent Technologies and ADP Brokerage Information Services Group. After her return to India in 1997, she worked as Program Manager and Engineering Manager with CyberCash India Pvt. Ltd, Tarang Technologies and GE Aircraft Engines IT (GTS). She also has part time teaching experience of more than ten years. Shanti is a social entrepreneur and is the recipient of the prestigious Ashoka fellowship awarded to social entrepreneurs across the globe for their innovative and practical ideas to bring about large-scale social change. Shanti Raghavan is also a recipient of the NCPEDP-SHELL HELEN KELLER AWARD IN 2005 for employment of disabled and couple of awards from Rotary Club for her work in development of persons with disability. She is also the recipient of the Karmaveer Puraskar award in 2007 and Sadguru Gnanananda Award in 2008. She is a visiting faculty at Centre for Social Initiative and Management. She has been a speaker for employment and training of the disabled at various conferences of NASSCOM, CII, Techshare and international conferences such as Indo-US conference.

Joyojeet Pal, Visiting Assistant Professor, Polytechnic Institute of New York University and a Computing Innovation fellow at University of Colorado Boulder

Joyojeet Pal is a visiting assistant professor at the Polytechnic Institute of New York University and a Computing Innovation fellow at University of Colorado Boulder. His work has been on children's use of shared computers. In the recent past, he has been working on the impacts of the UN Convention on the Rights of Persons with Disabilities on the availability of assistive technologies in the developing world. He is also interested in the media representation of technology. Joyojeet received his PhD in City and Regional Planning from the University of California at Berkeley and his Bachelor's in Commerce from Sydenham College, Mumbai.

Arun Mehta, President, Bidirectional Access Promotion Society (BAPSI)

My name is Arun Mehta, my age 56. I am married, and live in New Delhi. I obtained a B. Tech degree from IIT Delhi in 1975, a Masters in Computer Sciences from the State University of Stony Brook in two semesters thereafter with the equivalent of a 4.0 GPA. I then worked with Siemens AG in Erlangen, Germany for three years, designing the electricals, electronics and process control software for steel rolling mills. In 1979, I returned to Mumbai, India, where I designed and marketed hard wired and programmable solutions for a large variety of industrial control problems. In 1982 I joined the PhD program of the Ruhr University, Bochum, Germany, as a fellow of the Friedrich Ebert Foundation. My solution for a time-optimal crane controller demonstrated a 5% improvement in the throughput of a 35-ton grab crane at Hamburg-Wedel, and was also presented at the World Congress of the International Federation of Automatic Control in Munich, 1987. I was awarded the "Dr.-Ing" title the same year. On returning to India, I became the Managing Director of Indata Com Private Limited, in

which capacity I write software, teach, and provide consultancy services. My clients include Tata Iron and Steel Ltd, Jamshedpur, and the University of Pittsburgh, for whom I developed software that helps in the early detection of Alzheimers' disease. I have written extensively for publications in India, Pakistan, the US and Germany. In 2000, I started radiophony.com together with Vickram Crishna, a .com dedicated to audio-centric solutions to the problems of the under-privileged. At the request of Professor Stephen Hawking, I wrote eLocutor, free and open source software that allows persons as severely disabled as him to write and speak. I have taught programming as a volunteer at the National Association for the Blind, helping my students become members of international development teams of cutting edge software that will help improve the lives of not just the blind. Currently, my passion is software that might make it easier for children with autism, cerebral palsy and dyslexia to communicate, which is being made available free of cost at skid.org.in. This software received the Manthan Award in 2008. I have conducted three workshops, each a week long, with autistic children and their care givers, to find ways that persons with severe communication disorders might learn to use the computer to communicate. I mentor a few students at school and college level with severe disabilities, helping them with their computing problems, even writing special software to make it easier for them to communicate. From 1989 to 1991, I was President of the Indian section of Amnesty International, and have since been at the forefront of initiatives to improve cyber rights and telecommunications policy, to allow rapid spread of the benefits of information technologies to all segments of society. I am part of the ONI-Asia project, in which I am seeking to make the monitoring of Internet filtering in India sustainable. This year we started the Bidirectional Access Promotion Society, bapsi.org, of which I am currently President. It combines policy related work with technology development to help individuals with serious access issues. I moderate several Internet discussion groups, most notably india-gii@cpsr.org which brings together experts from academia, government, industry and the media to critically examine India's bumpy progress along the information highway. I am a professor and chairman of the computer engineering department at JMIT, Radaur, an engineering college in rural Haryana, 180 km from Delhi. I have taught Pascal, PL/1, Visual Basic, Ruby, Perl, C and C++ programming, as well as web technologies, including Ruby on Rails and software engineering. I have co-authored a book "Technology and Competitiveness", which was published by Sage, and compares the machine tool industries of Brazil and India. In 2007, O'Reilly published "Beautiful Code", in which the world's leading programmers, including Brian Kernighan and Matz, contributed a chapter each. In this Jolt-awardwinning book, I am proud author of a chapter on eLocutor, entitled "When a button is all that connects you to the world."

Presentations

1. Axel Leblois, Executive Director, G3ict spoke on ICT Accessibility and Reasonable Accommodation in the Convention on the Rights of Persons with Disabilities, Implications of Article 9 and 24 for State Parties and Education Ministries.

2. Associate Director, Center for Persons with Disabilities spoke on Impact of Lack of Accessible ICTs for Students with Disabilities – An International Perspective
3. Dr. Sushmita Mitra, Director, Student Support Services, National Institute of Open Schooling presented on School Textbooks and Educational Resources spoke on Learning Materials and Educational Resources: Making Distance Education Work. She spoke on the paradigm shift in education, National Institute of Open Schooling, perspectives and orientations towards learning in ODL system, instructional delivery system, efficacy of print materials and educational resources.
4. Dr.Hemalata, Deputy Director, NCDS, IGNOU spoke on ICT for Inclusion mentioning about ICT in general, ICT for persons with disabilities, what is Inclusion? Empowerment of Persons with Disabilities and ICT at Individual level.
5. James Thurston, Senior Strategist – Global Policy, Microsoft spoke on Microsoft’s approach to accessible education.
6. Dinesh Kaushal and Mukesh Sharma from Code Factory described the various accessibility features of being developed and used for mobile phones in India by Code Factory.
7. Prof S R Mittal, Professor in Education from the Department of Education, University of Delhi spoke on Challenges faced by Students with Disabilities in Higher Education.
8. Sunil Abraham, Executive Director from the Centre for Internet and Society spoke on Open Educational Resources
9. Arun Rao, CEO, The Deaf Way Foundation spoke on ICT Applications in Deaf Education. He elaborated on data entry operations, the software/BPO explosion, institutions and NGOs, innovative training, courses and challenges, where we are today and the way forward.
10. Prof Tanmoy Bhattacharya, Coordinator, Equal Opportunities Cell, Delhi University
Education of Students with Disabilities spoke about An Evaluation of the Indian Educational Policies.
11. The evening session on the first day was on Shifting Paradigms for Accessible and Assistive Solutions: Can India Schools Leapfrog Current Solutions? Prabir Purkayastha, President, Centre for Technology and Development, Chairperson of Knowledge Commons, Vice President, Delhi Science Forum and Chairperson of Program Review Committee on Perception and Control, ASTeC Programme, Ministry of Information Technology was the first speaker of this session.
12. Mandar Naik, Director - Platform Strategy with Microsoft India spoke about interoperability in accessibility, bridging the software worlds, Microsoft’s commitment to interoperability, accessibility interoperability alliance, Microsoft’s user interface automation, etc.
13. Susan Schorr, Head, Special Initiatives Division, Telecommunication Development Bureau BDT spoke on ITU’s role in promoting connected schools, global challenges to connecting schools for ITU members, solutions to school

- connectivity, ITU's role in promoting accessible ICTs, UNESCO Education Data, ILO Data, etc.
14. Claudio Giugliemma, President, Dominic Foundation (Switzerland) spoke on the Dominic Foundation, What is Cloud Computing, Lucy: A Solution to Simplify The Delivery of Assistive Technology, Built-In Accessibility Tools, Benefits of Lucy for Education, etc.
 15. Professor Kenryu Nakamura spoke on 99 Tips in My Pocket In-Class Use of Mobile Phones for Students with Disabilities, the current situation of special education in Japan, use of assistive technology in Japan, present situation of mobile phone in Japan, anxiety towards mobile phones among school teachers and administrators, technology bringing out children's potential, potential of mobile phones as a tool in special education, universal design and accessibility function, etc.
 16. James Mathew-Insite spoke on Insight ICT for the differently-abled, activities for the visually challenged, projects with other organizations, audio content, employability and research and development.
 17. Professor Mamoru Iwabuchi, Research Center for Advanced Science and Technology from the University of Tokyo spoke on development of ICT-based assistive technology for minority languages, present situation of AT, development of screen readers for minority languages, etc.
 18. Sachin Malhan, CEO and Co-founder, Inclusive Planet spoke on the global social library for the visually impaired.
 19. Mr. Andrew Tu, Senior Advisor to Assistant Director General of WIPO spoke about facilitating access to copyright works for visually impaired persons – the WPO VIP initiative.
 20. Hiroshi Kawamura, President, DAISY Consortium made the DAISY presentation.
 21. Viji Dilip, International Program Manager, Bookshare shared the Bookshare success story.
 22. Dr. Sam Taraporevala, Associate Professor and Head of Department of Sociology, St. Xavier's College, Mumbai spoke on print access: India story, Indian efforts to secure Right to Read and eliminate the book drought and the road ahead.
 23. George Kerscher, Secretary General of the DAISY Consortium and President of the International Digital Publishing Forum spoke on DAISY latest developments and support for and Math.
 24. Prashant Ranjan Verma, Consultant, DAISY Consortium spoke about overview of hardware and software tools for authoring and playback of DAISY books.
 25. Birendra Raj Pokharel, President, National Federation of the Disabled-Nepal, Convener, DAISY Nepal Foundation, Vice Chair, DPI Asia Pacific and Chair, DPI South Asia spoke on introducing DAISY in Nepal, the present status of DAISY implementation in Nepal, challenges in implementation of DAISY in Nepal, etc.
 26. Michael Katzmann, Chief of the Materials Development Division, National Library Services for the Blind and Physically Handicapped, USA spoke on Best Practices in Providing Accessible Materials to Persons with Disabilities.

27. Dr. Cyndi Rowland made a presentation on Visible and Hidden Barriers for Students and Faculty: Impact of Lack of Accessible ICTs for Students with Disabilities – An International Perspective.
28. Arun Mehta, President, Bidirectional Access Promotion Society made a presentation on Opportunities and Challenges for Education in a Neuro-Diverse World.
29. Joyjeet Pal, Visiting Assistant Professor, Polytechnic Institute of New York University and a Computing Innovation fellow at University of Colorado Boulder presented on developing a curriculum in disability studies and assistive technology for higher education.
30. Shanti Raghavan, Founder and Managing Trustee, Enable India made a presentation on Centres of Excellence, Train the Trainers, Employing Disabled Persons as Trainers.

All the presentations can be downloaded [here](#).

Annexure B - List of Participants

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Annexure C - Budget

<i>Details</i>	<i>Amount spent</i>	<i>Paid by</i>	<i>Total</i>
Travelling Expenses	288,776.00	UNESCO (Rs. 200,000)	
International Travel Expenses	43,263.00		
International Resource Person Travel		WIPO (\$4000)	
Accommodation	270,642.00	Department of Information and Technology (Rs. 200,000)	
Participants Kit	78,750.00	CIS	
Conference Dinner	120,000.00	CIS	
Creating DAISY CD for Accessibility Handbook (Paid to Saksham)	33,600.00	CIS	
Postage & Courier of Invitations	7,837.00	CIS	
a. India Habitat Centre-Delhi, towards venue for 3 days from 27/10/10 to 30/10/10 for Edict conference	238629.00	Hans Foundation	
b. Towards Publication of “e- Accessibility Policy handbook for Persons with Disabilities”	250000.00	Hans Foundation	488,629.00
Paid by			
Paid by UNESCO			
Total Expenses			16,00,181.00