ICTs for Persons with Disabilities
Taking Stock and Identifying Opportunities

A National Conference and Exhibition

Session Briefs

09–10 September 2014
The Hans Hotel, 15 Barakhamba Road
Connaught Place, New Delhi 110001
Session 1: Aspirations of Youth

Session Brief

This session will bring together young persons with disabilities (PWDs) and administrators from various Indian universities and training institutes. They will discuss the practical challenges that young people face in learning environments. The session will document the needs and aspirations of youth, and explore the corrective actions that Indian institutes of learning ought to undertake.

According to the Census of 2011, India had a population of 26.8 million PWDs, of whom almost 33.8 per cent were in the age group 10–29. The National Youth Policy (2014) estimates that 34 per cent of India’s Gross National Income is presently contributed by people aged 15–29 years. Although PWDs constitute more than 2 per cent of India’s population today, their employment needs remain largely unmet, notes a study by the National Centre for Promotion of Employment for Disabled People. While the Persons of Disabilities Act (1995) reserves 3 per cent of all Government jobs for PWDs, it is widely agreed that PWDs’ training needs have not been adequately addressed.

Across India, young PWDs – faced with a wide range of barriers to access and communication – find themselves having to forego opportunities for education, training and employment, and thus being unable to integrate themselves into economic life. The needs and aspirations of young PWDs must be understood, and ICT-based solutions and services developed accordingly to help improve their lives. In order to do so, it is necessary for administrators of academic and training institutes and solutions providers to enter into a dialogue with young PWDs. The session seeks to facilitate a constructive dialogue between these stakeholder groups.

Broad Goals

- To sensitize administrators at universities and training institutes about the need to improve service quality and technological support for an enhanced learning experience
- To involve young PWDs in the decision-making processes that affect their lives

Thematic Areas of Discussion

- Gaps in educational / training facilities for PWDs in terms of ICT availability and use
- Accessibility of study material (the use of Braille formats, audio books etc)
- Reviewing the National Youth Policy in terms of the role ICTs could play for young PWDs

Expected Outcomes

- Recommendations for an enabling ICT environment and standards for PWDs across universities / training institutes
- Recommendations to strengthen the National Youth Policy (2014), with a particular focus on the use of ICTs by PWDs
Session 2: ICTs for Inclusive K-12 Education

Session Brief

This session will bring together school educationists, policymakers and organizations working for children with disabilities. It will identify gaps and discuss strategies for making schools and basic education more accessible. Current policies supporting inclusive education for persons with disabilities (PWDs) will be reviewed to identify the particular role that ICTs could play, and stakeholders will be expected to make recommendations for the improved implementation of existing policies and programmes.

According to a Ministry of Human Resource Development report on the status of education in India, only 47 per cent of Indian schools were accessible in 2007. The implications of these statistics for the literacy and learning of PWDs were reflected in a 2009 World Bank report, People with Disabilities in India: From Commitments to Outcomes, which noted that adult literacy rates for people with mild to moderate disabilities in India stood at a mere 50 per cent.

Basic education is a pre-requisite for higher education and employment, and should equally accommodate all students. With this fundamental principle in mind, the session will work to identify gaps and barriers in learning infrastructure, the development and dissemination of content, and the capacity building of teachers and students. The role of ICTs in each of these areas will be discussed in detail.

Broad Goals

- To take stock of the current status of school education for PWDs in India and to identify the physical and mental barriers to the inclusion of PWDs in school education
- To formulate policy recommendations and strategies for removing these barriers and promoting an enabling educational environment

Thematic Areas of Discussion

- Gaps in the availability and use of ICTs in schools
- Access: Delivery mechanisms, standards and devices
- Quality: Content design, quality standards, sensitization and capacity building of teachers
- Compliance: Monitoring and evaluation

Expected Outcomes

- Identification of gaps and opportunities
- Specific actions recommended for strengthening the role of ICTs in inclusive school education
- Strategies for the improved implementation of policies oriented towards the use of ICTs by children with disabilities
- A plan to create a national repository of learning materials using ICTs in a format accessible to young learners
Session 3: ICTs for Inclusive Higher Education

Session Brief

This session will reflect on the challenges faced by persons with disabilities (PWDs) at institutes of higher education in India, and will focus on the gaps that could be addressed by ICTs. By taking stock of the current situation, specific gaps and opportunities will be identified, and recommendations made for the improved implementation of existing programmes and policies.

According to a survey of mainstream education for students with disabilities in India by the National Centre for Promotion of Employment for Disabled People (NCPEDP), around 20 per cent of Indian universities do not follow the policy of maintaining a reservation of 3 per cent for PWDs. 33 per cent of Indian colleges are unaware of the Persons with Disabilities Act (1995). This general lack of awareness and sensitivity has often resulted in the neglect of students with disabilities by institutes of higher education.

Infrastructural barriers; the lack of accessible content, learning devices and equipment; and perhaps most importantly the limited availability of trained teachers and assisting staff are among the many obstacles to higher education that PWDs encounter in India. This session aims at identifying how ICTs could be used to strengthen learning infrastructure; and developing strategies for the effective integration of ICTs into higher education systems.

Broad Goals

- To identify major challenges faced by PWDs in securing admission to institutes of higher education and completing their courses
- To understand and initiate action on shortcomings in higher education policies for PWDs, which could be addressed by the integration of ICTs

Thematic Areas of Discussion

- Barriers to opportunities for higher education
- ICT-enabled dissemination of and access to content
- Development of standards for effective staff training and sensitization
- Support systems for using ICTs and ICT-enabled devices

Expected Outcomes

- Recommendations for universities / colleges to strengthen the role of ICTs in making higher education more accessible
- Strategies for improved implementation of policies that address the use of ICTs for learners with disabilities
- A plan to create an ICT-based national repository of learning materials using open standards
Session 4: Web Access and Compliance

Session Brief

This session aims to examine web accessibility and compliance (WAC), and its implications for citizens with disabilities. In light of the 2011 United Nations resolution declaring Internet access as a human right, stakeholders will take stock of the level of web compliance in India, and deliberate on different ways to make the web accessible and usable for persons with all categories of disabilities.

Websites and portals have emerged as the front end of Government initiatives. In 2010, the Department of Electronics and IT (Ministry of Communications and IT, Government of India) formulated a draft National Policy on Electronic Accessibility which called for all online information and service providers to make their products and services accessible for persons with disabilities (PWDs). This included recommendations to develop websites which would conform to the Web Content Accessibility Guidelines (WCAG 2.0) of the World Wide Web Consortium.

The web has become an increasingly important resource for access to education, employment, recreation, commerce and healthcare. Web accessibility would allow PWDs to perceive, understand, navigate, and interact dynamically with the web. This would contribute significantly to the participation of PWDs in social and economic life. In order to make websites accessible, compliant and user-friendly, it is necessary to understand the needs of PWDs and existing barriers to access. This session will identify these challenges, discuss possible solutions, and formulate policy recommendations to make the web friendly for PWDs.

Broad Goals

- To understand the need for WAC with particular reference to PWDs
- To identify steps for the practical implementation of WAC norms, and to promote related tools, solutions and standards
- To develop recommendations and initiate the process for entrenching WAC at the policy level

Thematic Areas of Discussion

- Accessibility and compliance of Government websites offering e-services to citizens
- Corrective actions to make the web accessible for PWDs
- Cost effective and open source tools to enable access
- Language exclusion as a barrier to online access
- Inclusion of PWDs in the citizen engagement framework for e-Governance
- Government projects on e-delivery for citizens (with a focus on PWDs)

Expected Outcomes

- Identification of cost-effective tools, solutions and standards to enable WAC, particularly for websites offering e-services to PWDs
- Recommendations for entrenching WAC at the policy level
Session 5: Employment and Professional Growth for PWDs in an ICT-enabled Economy

Session Brief

This session will focus on employment opportunities in India for persons with disabilities (PWDs). It will review the status of un/employment of PWDs; critically analyse the implementation of policy in this area; assess the specialized skill sets different categories of PWDs possess; and identify sectors where PWDs could be employed and make a valuable contribution. Stakeholders will investigate the role of ICTs in strengthening skill development programmes for PWDs; building market linkages for PWDs; and helping enhance their performance at the workplace.

Data from the National Sample Survey Organization (NSSO) showed that as of 2002, only 26 per cent of PWDs in India were employed. As PWDs constitute more than 2 per cent of India’s population it is necessary to acknowledge and understand their skills and productivity, create jobs for them, and help them identify employment opportunities.

At the same time, a support system for training and skilling PWDs needs to be put in place. ICTs have a major role to play in building the professional capacity of PWDs; providing them information about livelihoods; linking them to employment services and job openings; and creating an enabling workplace environment that allows them to work with dignity.

Broad Goals

- To understand the specialized skills of PWDs and identify jobs for them in different sectors
- To devise standards and policies for the inclusion of PWDs in all work environments
- To investigate the role of ICTs in: skill development; building linkages between PWDs and employment opportunities; and enhancing PWDs’ workplace performance

Thematic Areas of Discussion

- Policies and implementation mechanisms to ensure employment opportunities for PWDs
- An ICT-enabled skill development ecosystem for PWDs
- ICT-based linkages between PWDs and livelihood information, employment services and job openings
- ICT support for PWDs at the workplace
- Opportunities for skill development, training and certification of PWDs in the IT-enabled services sector
- Corporations that employ PWDs: Perspectives and challenges

Expected Outcomes

- Recommendations to strengthen existing labour laws, create standards for equal employment opportunities, and ensure an accessible and inclusive work environment
- A plan to develop ICT-based training and employment services for PWDs
- A report on the skills and employability of PWDs in the ICT/ITES sector
Session 6: ICT-enabled Participation of Persons with Disabilities in Arts and Cultural Life

Session Brief

Drawing on Article 27 of the Universal Declaration of Human Rights (‘Everyone has the right freely to participate in the cultural life of the community, [and] to enjoy the arts ...’), this session will focus on the need for persons with disabilities (PWDs) to be included in cultural life, and be allowed to appreciate the arts. The discussion will examine the current status of access to cultural heritage and arts by PWDs; good practices and specialized services for PWDs; and the possibility of developing an ICT-based platform to build awareness and share solutions to enable the participation of PWDs in socio-cultural activities.

All members of society must be granted equal opportunities for personal development and participation in the socio-cultural life of their community. PWDs in India, however, often find themselves unable to engage with the arts and cultural life. The accessibility of museums, heritage sites, and other cultural centres needs to be greatly improved. Every attempt must also be made to encourage artistically inclined PWDs to express themselves through painting, sculpture, music and other forms of artistic expression.

The session will examine the challenges that PWDs face, and the role of ICTs in enabling access to cultural life. The session will also explore the possibility of developing an ICT-based platform where stakeholders can collaborate to build awareness and create innovative solutions for PWDs’ engagement with art and culture.

Broad Goals

- To identify barriers to participation in arts and cultural life for PWDs
- To explore the development of an ICT-based platform to address related issues, build awareness, and share tools and solutions to enable the participation of PWDs in socio-cultural activities

Thematic Areas of Discussion

- Access to cultural institutions, heritage sites and museums
- Identification of available ICTs, and the proposed development of infrastructure, assistive technologies and expertise to allow access for PWDs

Expected Outcomes

- Policy recommendations that support the use ICTs to access the arts and cultural life
- A voluntary consortium comprising PWDs, institutions of culture and heritage, and technologists/engineers
- Proposal to develop an ICT-based platform allowing stakeholder engagement, awareness-building and the sharing of tools and solutions
- An action plan for using ICTs and assistive technologies for PWDs to participate in cultural life
Session 7: Available Assistive Technologies and Solutions: Review and Analysis

Session Brief

This session will critically examine how different devices and technologies can be used or developed to enhance the lives of persons with disabilities (PWDs). The current level of usage of ICTs by PWDs will be analysed, and gaps and barriers understood. Stakeholders will be expected to propose and initiate solutions and next steps based on the above analysis.

During this session, stakeholders working towards the development of ICT-based solutions for PWDs will have an opportunity to showcase their work and receive feedback about the practicality, usability and implementation of their devices and solutions. A range of technologies will be discussed, including applications for mobile phones, computers and laptops and specialized systems such as Braille and touch recognition systems.

The discussion of available technologies will lead to the formulation of policy recommendations and standards for training and support for the use of ICTs / ICT-enabled devices. The session will also provide a platform to develop strategic plans for the design, implementation and propagation of new ICTs.

Broad Goals

- To understand and analyse the current usage and importance of specific ICTs and assistive technologies for PWDs
- To develop policy recommendations, standards and long-term plans for the efficient use and implementation of both available and new ICTs for PWDs

Thematic Areas of Discussion

- How mobile phones and computers can be made more accessible and affordable
- Barriers to developing ICTs and ICT-enabled devices and implementing solutions for PWDs
- Gaps in the planning and design of assistive technologies and ICT-enabled devices
- Developing standards for effective training and support for using ICTs / ICT-enabled devices
- Incorporating special language systems and alternative communication technologies (Braille, Touch and Bliss Symbols) in public amenities and services

Expected Outcomes

- A thorough understanding of available ICT-based solutions for PWDs and the potential for developing new solutions
- Formulation of policy recommendations and standards for usage and implementation of ICTs
Session 8: Findings from the Knowledge Mall

Session Brief

This session will follow up on the Knowledge Mall for ICTs and Assistive Technologies. It will bring together persons with disabilities (PWDs), technologists and Government bodies working for the empowerment of PWDs, in order to verify whether existing technologies meet the needs of the PWDs, and how they can be refined to do so more effectively.

Running during the two days of the National Conference, the Knowledge Mall is an exhibition for technologists from across India to showcase existing assistive technologies and ICT-based solutions for PWDs. The Mall will allow all participants at the Conference to closely observe and analyse the technologies on display. The closing session of the Conference will offer a common platform to PWDs, exhibitors / technologists and Government bodies (or users, designers and facilitators). Technologists will receive direct feedback from their target consumers and other stakeholders about how certain products and services can be improved.

Broad Goals

- To bring together PWDs, Government bodies and technologists to critically examine whether available technologies adequately meet the needs of PWDs; and to discuss how they might be developed further to enhance their utility
- To examine how emerging technologies could be developed, upscaled and taken to market

Expected Outcomes

- Action research: The session seeks to identify shortcomings of existing technologies for PWDs and discuss how they might be refined and developed. The session will also explore the possibility of taking up emerging and new technologies for development, with the involvement of domain experts and members of the Open Knowledge Community.