Technology Innovation for Persons With Disabilities in Brazil

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EXECUTIVE SUMMARY

The results of the Brazilian Census 2010 show that of a total population of 193 million people, approximately 46 million people of Brazil's total population have some kind of disability. Brazil is one of the world's leading IT markets and the largest IT market in Latin America. This chapter presents a program started by the Government of the State of Sao Paulo through its Secretariat for the Rights of Persons with Disabilities (SEDPcD) in 2013 that aims to promote the rehabilitation and social inclusion of persons with disabilities. Adopting the application of the concept and instruments of the knowledge economy as core strategy and through the application of ICT-based assistive technologies, the program develops solutions to a level where they can be applied massively in a cost-effective way.

PERSONS WITH DISABILITIES IN THE STATE OF SAO PAULO, BRAZIL

Definitions of Disability

The definition of Disability in the Convention on the Rights of Persons with Disabilities (CRPD) can be found in Paragraph (e) of the preamble of the Convention: *"Recognizing that disability is an evolving*

concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others". Article 1 further specifies that: *"Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others"*. (United Nations, 2008)

These definitions constitute the legal foundation of Accessibility Rights:

1. It confirms the abandonment of the traditional "medical" definition of disability which focused exclusively on a person's impairment;
2. It clearly establishes the "social" definition of disability which results from the interaction between persons with impairments and attitudinal and environmental barriers, a notion that emerged in the later part of the 20th century;
3. It affirms that the full and effective participation of disabled persons in society can only occur if those barriers are removed.

Accessibility Rights, including to Information and Communication Technology, are established to ensure that persons with disabilities enjoy a "full and effective participation in society on an equal basis with others" and become an integral part of Human Rights.

The "medical model of disability" – the model most widely understood and interpreted today – considers disability "a physical, mental, or psychological condition that limits a person's activities," linked to various medical conditions and viewed as a problem residing within the affected individual. While the medical model is the construct for disabilities that we are historically most accustomed to using, over time the international community has largely come to recognize that the medical model is not a sufficiently effective or empowering conceptual framework for promoting the full inclusion of persons with disabilities in society. As a result the paradigm of disabilities is expanding to include both the medical model as well as the more recently defined "social model of disability."

Unlike the medical model of disability, the social model of disability views disability as "arising from the interaction of a person's functional status with the physical, cultural, and policy environments," an approach which closely follows the work done by the UN Washington Group on Disability Statistics (more information is available at: https://www.washingtongroup-disability.com/).

According to the social model, disability is the outcome of the interaction of a person with his or her environment and thus is neither person- nor environment-specific. Within the social model, then, a disability results when a person attempts to communicate, yet does not understand or speak the national or local language. Similarly, a disability results when someone who has never before operated a phone or computer attempts to use one – with no success. In both cases, a disability has occurred, because the person was not able to interact with his or her environment.

Compared to the medical model of disability, the social model of disability inevitably encompasses more of the global population in more situations and under more circumstances. And it is based on the energetic and compelling leadership of the Washington Group on Disability Statistics and the World Bank's Disability and Development team, along with the United Nations' Declaration on the Rights of Persons with Disabilities in December 2006, that the disabilities paradigm – and the way we view accessibility - has begun to shift.

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