

Chapter 2

How ICT–Enabled Systems Can Enhance Opportunities of Education for Persons with Disabilities

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ABSTRACT

The chapter provides an overview of the use of ICT tools to enhance education for persons with disabilities in developing countries. The chapter per the authors begins by presenting the international legislation on education and ICT access for persons with disabilities, and then provides both a typology for ICT usage in education for persons with disabilities as well as case studies. The authors then discuss how digital information derived from usage of ICT tools can be used to inform inclusive educational policies and programs. Finally, the chapter describes current challenges and opportunities, and provides recommendations for scaling up ICT in developing countries as a mean to improve education for persons with disabilities.

DISCLAIMER: The opinions presented are those of the author and not necessarily those of the United Nations.

1. INTRODUCTION

In 2015, the United Nations (UN) General Assembly adopted the 2030 Agenda for Sustainable Development which contains a set of 17 sustainable development goals and 169 targets to be achieved by 2030.

DOI: 10.4018/978-1-5225-2621-6.ch002

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In this Agenda, countries worldwide recognized that all persons with disabilities should have access to lifelong learning opportunities that help them acquire the knowledge and skills needed to exploit opportunities and to participate fully in society. In addition, two targets call for, by 2030, (i) ensuring equal access to all levels of education and vocational training for persons with disabilities, and (ii) building and upgrading education facilities that are disability sensitive and provide safe, non-violent, inclusive and effective learning environments for all (UN, 2015).

The latest global estimates of the global prevalence of disability by WHO and the World Bank (2011) pointed to 15%. This suggests that in 2015, 1.2 billion persons may have been living with disabilities worldwide (UN DESA, 2015). Among younger generations, prevalence tends to be lower: 5% among the 0-14 years old and 14% among those 15-59 years old. Schools as well as lifelong educational training will thus face the challenge of including a significant percentage of students with disabilities.

Evidence suggests that persons with disabilities are less likely to receive education. Children and young people with disabilities (6 to 17 years old) are less likely to start school (Filmer, 2008). Those who attend school are less likely to complete the full education cycle compared to their non-disabled peers (Mitra, Posarac & Vick, 2011). WHO and the World Bank (2011) estimated that only 53% of the people aged 18-49 with disabilities had completed primary education, compared to 67% of those without disabilities. Disabled students also have lower transition rates among grades in some countries (Filmer, 2008) and, on average, tend to spend one or two years less in schools than their non-disabled peers. School enrollment rates tend to depend on the type of impairment; on average children with physical disabilities have more chances of being in school than children with intellectual or sensory impairments (UNESCO, 2010).

The reasons of low school enrolment and attendance are diverse. Recent studies point to the structural failure of education systems to provide sufficient support for disabled children to attend school as the main reason behind the current inequality between educational outcomes of non-disabled and disabled children (Mitra, 2016). One key aspect is inaccessibility of schools and educational materials (WHO and the World Bank, 2011). Another aspect is lack of teacher training in teaching students with special needs. Also, difficulties in communication with classroom mates may lead to isolation and may create an environment which is not inviting for students with disabilities. Even children with disabilities which are in school can still face exclusion due to inaccessible programs, and the inability to participate in the same way as their classmates due to the absence of reasonable accommodations.

Recent developments suggest that information and communication technologies (ICTs) may be of value in addressing these challenges. The World Bank Group defines ICTs as the hardware and software for the collection, storage, processing, transmission, and presentation of information (information technologies) as well as the physical telecommunication systems and the services that utilize them (information and communications infrastructure) (*The World Bank Group*, n.d.). Programs and initiatives from both the public and private sector have used ICTs to remove barriers experienced by persons with disabilities, allowing them to participate in life on an equal basis with others (ITU and G3ict, 2012). These possibilities of ICT use are also reaching the education field, where new efforts are being forged to fight education disparities between persons with and without disabilities through ICTs. In particular, since 2006, there has been a surge in the publication of research on ICT-supported learning for people with disabilities (IstemicStarcic, 2014).

ICTs have also been designated as one of the most effective ways to advance and ensure the call for inclusive education for persons with disabilities (UNESCO IITE & the European Agency for Develop-

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