



United Nations Educational, Scientific and Cultural Organization UNESCO Institute for Information Technologies in Education



European Agency for Development in Special Needs Education

# ICTs IN EDUCATION FOR PEOPLE WITH DISABILITIES

**Review of innovative practice** 

#### **UNESCO Institute for Information Technologies in Education**

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#### FOREWORD

How Information and Communication Technology (ICT) can be used in the most effective ways for education of people with disabilities is currently high on the political agendas of all countries, particularly those who have ratified the United Nations Convention on the Rights of Person with Disabilities (CRPD, 2006). A number of the general principles included in the CRPD are directly linked to UNESCO's mandate. As the United Nations' leading agency for education, UNESCO is at the forefront of activities aimed at promoting quality education and lifelong learning for all society members, including disabled persons.

The educational needs of people with disabilities are extremely diverse. As with all other members of society, people with disabilities must acquire the knowledge and skills required for the community in which they live. However, they face additional demands (often referred to as special educational needs) caused by functional limitations that impact in different ways upon their ability as learners to access standard educational methods of instruction. These limitations often prevent educational progress and achievement.

In this context, the application of ICT is very important as it plays an essential role in supporting high quality education for learners with disabilities. The advantages of ICT usage in the teaching and learning process are based on the possibilities it offers for alternative means of communication, providing access to educational resources in a more convenient way and to enhancing learning motivation. By overcoming obstacles of time and space, supplementing vital human functioning and supporting the development of crucial skills, these technologies contribute to the increased effectiveness of educational processes by enabling people with disabilities to actively participate in meaningful learning experiences.

With this in mind, the UNESCO Institute for Information Technology in Education (UNESCO IITE) and the European Agency for Development in Special Needs Education (the Agency) agreed in 2010 to combine their expertise in this field and collaborate on the development of a *Review of innovative practice*. The intention for the review was to build on findings from past work – notably UNESCO IITE's activities in this area and in particular *ICTs in Education for People with Special Needs: Specialized Training Course* (2006) and the Agency's ICT in Special Needs Education project related work.

The goal of this Review therefore is to present concrete examples of the use of ICT in different educational settings in order to show the real possibilities of ICT as a tool for supporting learning and ultimately inclusion for people with disabilities.

The development of this review has been guided to a large degree by the UN Convention on the Rights of Persons with Disabilities (2006). The use of the term 'people with disabilities' is understood in this Review within the terms of the Convention:

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. (p. 5)

The principles and requirements impacting upon the use of ICT that are outlined within the Convention have been used as the basis for exploring a range of policy documents and literature in this area. In addition, the examples collected for this Review have been selected to illustrate how ICT in education for people with disabilities can be used effectively and in innovative ways in relation to four thematic areas that emerge from a consideration of the key messages within the UN Convention. These relate to ICT to support: personal access to information and knowledge, learning and teaching situations, personal communication and interaction, and finally, access to educational administrative procedures for people with disabilities.

ICTs in education for people with disabilities

This Review presents 12 Case Studies and over 20 Vignettes (short focussed illustrations of practice) linked to the four themes. These examples come from 18 different countries, covering Arabic speaking countries, Latin America, Commonwealth of Independent States (CIS) and European Countries.

On behalf of our respective organisations we wish to gratefully acknowledge the input of the many professionals from across the globe that submitted example information used as the basis for the Case Studies and Vignettes presented in Chapters 3 to 6 of this report. Without their contributions this Review would not have been possible and we wish to thank them for their contributions to this work.

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#### 1. INTRODUCTION

The UNESCO Institute for Information Technologies in Education (UNESCO IITE) and the European Agency for Development in Special Needs Education agreed in 2010 to collaborate on a joint project to develop a Review of Innovative Practice – a report presenting concrete examples of practice of the use of Information and Communication Technology (ICT) with people with disabilities in different educational contexts and settings. In particular, the Review was targeted at considering examples of practice that can be considered to be 'innovative' within the specific educational setting and wider societal context they were situated within.

The agreed goal of presenting different examples of practice was not to describe or examine the technological aspects of ICT usage in education. Rather the goal was to highlight the different possibilities and potential benefits of applying ICT in varied and potentially innovative ways in very different global educational contexts and settings for people with disabilities.

In order to achieve this goal, it was important that examples from a range of geographical and educational situations were considered. It was also necessary to ensure that examples from 'non-traditional' educational settings were collected as far as possible. Within the consideration of possible examples, innovation was considered as the use of 'everyday' technology in unexpected or untried ways within a particular educational setting or context, as well as the use of newly developed technologies for education.

In order to collect such potentially wide-ranging information, the international networks of contacts of UNESCO-IITE and the Agency were engaged to gather information on examples that may not usually be disseminated or published in such a widespread way. A very clear intention in framing the work was to use the Review of Innovative Practice – referred to from now on as the 'Practice Review' – as an opportunity for sharing messages from different stakeholders working in the field of ICT in education for people with disabilities who may not usually have the possibility to share their work internationally.

The aims of this Practice Review therefore are to use the collected examples in order to:

- Highlight a range of different purposes for using ICT in education for people with disabilities;
- Identify possible key messages for policy and practice in this area.

In addition, the presentation of different types of examples of ICT being applied in new, or unexpected ways in this field is also intended to act as a source of inspiration to practitioners and policy makers in considering possible innovative ways ICT can be used in education for people with disabilities.

The Practice Review does not aim to present highly technical information relating to ICT and its application in education. Decision makers and educators working in different educational situations with people with disabilities are considered to be the main target audience for this Practice Review. They are the professionals who are considered most likely to find concrete information on the effective utilisation of ICT most useful to their own work.

So as to put the Practice Review report into a clear context, the next section will provide a rationale for the approach taken as well as an outline of the methodology used for collecting examples and then an overview of the structure of the Practice Review itself.

### 1.1 Rationale for the approach taken

The Practice Review is a project initiated by UNESCO IITE under its programme of work examining the use of ICT in education of people with disabilities: