

Chapter 12

Catering for Personal Autonomy with E–Mentoring Supported by Recommendations

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ABSTRACT

This chapter presents a technology solution based on a recommender system supporting people with intellectual disabilities in their work integration and independent life, in the scope of the CISVI and AMI4Inclusión research projects. Information and Communication Technologies are essential for supporting personal autonomy and improving the quality of life of disabled people. The technology can contribute in a twofold way: (1) facilitating the work of the human mentor when training people with intellectual disabilities and (2) automatically offering them advice and recommendations in response to certain cues/actions detected in the environment.

INTRODUCTION

Education and work are inextricably linked to people's lives in our society, and they are the

key agents towards successful social integration. However, people with disabilities still find barriers to inclusion in employment and education which weigh against independent living. One approach to help them overcome these barriers is through mentoring. A mentor is someone who

DOI: 10.4018/978-1-60566-206-0.ch012

supervises the career and development of another person through teaching, advising and providing psychological support. Nevertheless, this definition is limited because it does not take into account certain relationships and obstacles such as organizational structure, geographic location, interpersonal skills and the challenging nature of work. The use of Information and Communication Technologies (ICT) to provide electronic mentoring, or e-mentoring, may help overcome these problems (Hamilton et al., 2003). Moreover, this mentoring behaviour can not only be supported, but also reproduced by the technology. In this way, the systems perceive what the users are doing in the environment and can support personal autonomy. Technology can be used to support this twofold approach: (1) facilitating the mentoring work for human mentors, and (2) reproducing some of this support and offering it dynamically when certain user actions are detected in the environment. In particular, this chapter presents how this can be achieved with the use of a recommender system developed for educational purposes.

The objective of this chapter is to present a technology solution based on a recommender system to support the needs of people with intellectual disabilities towards their integration into work and independent life. First, we comment the background that supports the need for researching in ICT to support personal autonomy and improve the quality of life of disabled people. Next, we comment on the research work carried out in the scope of the CISVI and AMI4Inclusion projects, where the aDeNu research group is engaged in fostering independent living through ICT. Next, we comment how personal autonomy can be supported through recommendations offered within the mentoring approach from both perspectives: the mentor and the mentored. Finally, future trends are commented, and conclusions are provided at the end of the chapter.

BACKGROUND

According to article 26 of the Universal Declaration of Human Rights, “everyone has the right to education” (UN, 1948). More recently, the “Convention on the Rights of Persons with Disabilities”, approved by the General Assembly of the United Nations (UN, 2006a), in its article 4 takes account of all major legal and political instruments for the safeguarding of the rights of disabled people including those relevant for their participation in education. In Europe, the Ministerial Conference “ICT for an inclusive society” in Riga resulted in a common Ministerial Declaration in 2006 (EU, 2006a), where the prominent role of ICT in education is mentioned in the preamble, as well as the need for accessibility to services available through a range of devices. Many barriers to access education are mentioned along with service design and personal capacity. The needs of older workers and elderly people and the need to enhance e-accessibility and usability are also addressed here.

These initiatives have great relevance and impact in contemporary society since about six hundred million people in the world live with a functional diversity, or so called disability. They are supposed to have the same rights and obligations as any other member of the society, but unfortunately, due to the lack of support to specific needs, they usually face obstacles that prevent them from enjoying their rights. In Europe, the estimated percentage of the population with intellectual disabilities is about 3% (Inclusion@eu, 2004).

The European Ministerial e-Inclusion Conference of Vienna, in 2008 recognises the progress and success already achieved in the field of e-Inclusion in Europe and, at the same time, the challenges that still remain. The conclusion is that, in these difficult economic times, it is more than ever essential to support vulnerable people

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