The VODIE project: An extensive educational opportunity for vocational training of visually impaired individuals

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Abstract

Recent developments in educational technology offer many opportunities for blind-handicapped people in education and employment. The distance education system is one of the most preferred in these technologies. Within the scope of this system, various certification and training programs are performed by using learning management systems (LMS) and software considering visually impaired individuals. Vocational Education of Visually Impaired People via Distance Education (VODIE) project is aimed four goals: (1) Transferring a learning management system (LMS) that is suitable for the use of visually impaired individuals which is unavailable in Turkey, (2) developing the transferred LMS with addition of mobile access support and examination module, (3) creating and implementing an international certification program, and finally increase the accessibility and utilizing opportunities to information and communication technologies for visually impaired individuals. This article presents some experiences from the “VODIE” project of using accessible LMS and video conference system for visually impaired individuals. Also, transfer of innovation and developing new modules processes will be discussed.

Keywords: Visually impaired people, vodie project, distance education, vocational education

1. Introduction

It is necessary for disabled individuals to bond with the society at large in order for them to lead healthy individual and social lives (Sánchez and Sáenz, 2010). The first and most important step to be taken to meet this need is increasing educational opportunities and access to education. Increasing educational opportunities and access to education means that access to knowledge must increase in tandem. Knowledge is, first and foremost, universal and easy to share. However, knowledge that is universal and easy to share must also be easy to access. (Subaşıoğlu, 2000). As the digital revolution is now underway, means of access to knowledge has also gone through many transformations. (Akkoyunlu, 2012). Visually impaired individuals can gain access to knowledge by means of magnifying lenses, high-contrast software, editors, text-to-speech software as well as screen readers (Emiroğlu, 2008).

It is well known that disabled professionals earn less income compared to non-disabled professionals with similar resumés. Many disabled individuals do not get jobs that are satisfying and fit their resumes. Instead, they are usually employed in low-status, low-income jobs where they cannot show their full potential. Developed countries offer a wide variety of vocational training opportunities for disabled individuals. Distance education has become the most
popular method for offering such training. Disabled individuals can enroll in educational and certificate programs with the help of specially designed training management systems and software. Thus, there are many different distance education methods that are accessible and offer rich multimedia content. (Freire, Linhalis, Bianchini, Fortes and Pimentel, 2010). Consequently, important steps are being taken to instate programs that offer equal educational opportunities to disabled individuals, where these individuals can receive training through non-visual means and without spatial or temporal barriers. (VODIE, 2011). However, these developments are not proceeding with enough speed. Despite the schools that offer training for the visually impaired, it is clear that many visually impaired individuals are unable to benefit from these opportunities for a variety of reasons. Most importantly, many of them cannot get to these schools, and do not have sufficient access to educational materials, most important among which are books. Professional opportunities, as well as opportunities to mix with society and live without danger for the educated among them is also well known. (Bakirci, 2011).

2. Purpose of Study

This research project aims to introduce and discuss the development of the newly transferred LMS system within the context of the VODIE project.

3. Method

The VODIE project has 5 stages. The first stage is the installation of LMS, which has been transferred from the E-LEARN-VIP project. Development and integration of mobile interface constitutes the following stage. The third stage is the implementation of the development and integration of examination system module. The fourth and fifth stages are curriculum development of call center agent certificate program and design and implementation of a curriculum for the training of visually impaired through call center agent certification program.

4. The VODIE Project and Mobile Application

The goal of the VODIA project is to develop an LMS system that is usable by and accessible to visually impaired individuals, and to integrate vocational training into the implemented system. This main goal, and the following sub-goals constitute the totality of the project.

- Transferring and localizing the education management software (LMS), which is specially designed for disabled individuals and is not currently available in Turkey,
- Developing the transferred LMS system by adding mobile support and an exam module,
- Creating and implementing the International Call Center Agent certificate program for four languages, which are German, English, Italian and Turkish,
- Promoting the educational opportunities and the certificate program among the target group,
- Beginning International Call Center Agent certificate program,
- Increasing visually impaired individuals’ access to and opportunity to make use of information and communication technologies,
- Increasing awareness regarding the problems of visually impaired individuals in Turkey,
- Working with civil society organizations to carry out projects that target individuals with different levels of disability, and thus, to assure sustainability.

The VODIE mobile application has been developed by one of the project partners, Consiglio Nazionale delle Ricerche – Istituto per le Tecnologie Didattiche (CNR-ITD). The application, which has been developed for the iPhone, iPad and iPod touch can be accessed at http://itunes.apple.com/tr/app/vodie/id476079625?mt=8. The application is free and publicly accessible (Figure 1).
Bu This application connects to LMS, which has been developed as part of this project, and grants access to all LMS content. At the same time, the VoiceOver tool that is part of iOS is fully compatible with LMS’s chat, forum, wiki and quiz applications (Figure 2). The application also has support for Adobe PDF, Microsoft Word, Microsoft PowerPoint, Plain Text and Generic Source File file types. With the help of VoiceOver, all mentioned sources and content can be conveyed to the user and applicable commands are also rendered into speech. (La Guardia, Arrigo, Todaro, & Allegra, 2012).

This application, which was developed as part of this project, has had a pilot stage where it was tested by field experts and users (visually impaired individuals). The main goal of these tests was to improve the accessibility and usability of the application to meet the needs of visually impaired individuals. With the help of the feedback received during the testing stage, the shortcomings have been identified and the application has been improved accordingly.

With this application, visually impaired individuals are not limited to accessing knowledge through computers, but can also access the content they desire through mobile devices. At the same time, the tools built into the application facilitate user-user, user-medium and user-educator interactions, while improving and enhancing the communication process. It is also possible to claim that the application increases the opportunities that disabled individuals have for accessing and using information and communication technologies. Diversification of distribution channels through mobile access is important in granting equal educational opportunities to visually impaired individuals.

Acknowledgements

Results presented in this paper are part of the VODIE project. The VODIE project has been funded with support from the European Commission. This publication reflects the views only of the authors and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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