Chapter 105

Evaluating the Accessibility of Computer Laboratories, Libraries, and Websites in Jordanian Universities and Colleges

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ABSTRACT

This article evaluates the accessibility computer laboratories, libraries, and web sites of five different institutions of higher education in Jordan. The evaluation is performed using a questionnaire and by expert visiting these institutions of higher education to check their accessibility according to a set of universal standard collected from the literature. The analysis of the results revealed a serious weakness in understanding, adopting and implementing web accessibility guidelines throughout nearly all evaluated Jordanian universities and colleges. On the other hand, the accessibility of computer laboratories and libraries the questionnaire answers show that there is environmental barrier and technological barrier for persons with disabilities to access such services. The article points out the importance of improving awareness, training staff and developers, and developing formal guidelines to improve the accessibility of universities and colleges services.

INTRODUCTION

People with disabilities need to have equal opportunity to fully participate in all aspects of activities on a university or on a college campus, this means:

1. The ability to access all the information in the classroom and in the university including the website;
2. The ability to access the on-campus computer laboratories and the library.

The United Nations Convention on the Rights of Disabled Persons established in 2006 a commitment from the governments to give people with disabilities equal rights to access different facilities provided to the society. In 2007, the Jordanian government passed a legislation that will allow people with disabilities to have equal opportunities in the society. The law indicated that the government has to "making available reasonable accommodation that assists persons with disabilities to learn, communicate, and receive training".

A person with disability may face three types of barriers: environmental, attitudinal, and technical. Environmental barriers are barriers that environmentally limit persons with disabilities from accessing and using public facilities. Attitudinal barrier means discriminating a person with disabilities through people's attitude, ideas, and assumptions (e.g., assuming a person with speech impairment cannot understand you). Electronic or technical barrier happened when a technology cannot be reformed into another format accessible by assistive devices (Whiteneck et al., 2004).

Completing a university or college degree is important for a person with disability to obtain the skills needed to enter the market place. The person with disabilities needs the following in the university or college environment in order to be able to complete his/her studies in a healthy and accessible environment:

- Feel welcome and not discriminated through any action or attitude;
- Be able to communicate effectively with university or college campus staff;
- Can get to the facility and move easily inside it;
- Be able to access printed materials and electronic resources;
- Use different equipment and software available in the library or in the computer laboratories.

Adaptive technology includes specialized hardware and software that allow people with different skills to use the computer effectively. For example, student with blindness may use screen reading software with a speech output system and/or a Braille printer. Individuals with motor impairment who are unable to use their hands and cannot use a mouse or keyboard may use modified keyboard for input.

Once the computer is accessible, electronic resources such as software applications and Web pages may be not accessible for people with disabilities (Garcia-Crespo et al., 2012). For example, a student who is blind and is using a computer with screen reader software will not be able to recognize graphical contents in a web page unless text alternatives are provided. A student with hearing impairments may be unable to access audio on a Web page unless text captions are provided. In order to overcome these challenges, the software and Web page developers need to apply the principles of universal design.

In this paper, we evaluate the accessibility of computer laboratories, libraries and websites in Jordanian universities and colleges. The study measures the awareness of computer laboratory, library, web developer and e-learning staff with accessible technologies and environmental barriers. It evaluates the

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