

## Accessible Digital Repositories for Inclusive Education

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### Abstract

This article presents the results of the development of a research proposal focused on the adaptation of learning digital repositories to publish contents based on web accessibility standards. The purpose of this research is to facilitate access to inclusive education. The project structure and its results are included in the article, which includes a review of the state of the art, levels of repositories accessibility of 30 universities in Colombia according to development tools such as DMS (Document Management System) and customization tools such as DSPACE.

**Keywords:** Social Inclusion, Social Exclusion, Web Accessibility, Digital Content, Digital Repositories.

### INTRODUCTION

Education is a fundamental human right, which must be guaranteed by the institutions in charge in each country. However, it is common to find groups of people excluded from education [1]. Showing groups with a higher risk of exclusion from education and, therefore, work exclusion, such as those that are in a situation of inequality due to biological factors, or because of visual, auditory, physical, mental or cognitive impairments [2].

The World Disability Report shows that more than one billion people live around the world with some form of impairment. UNESCO shows that there are 72 million children out of school in the world, and that one third of this population

corresponds to impaired children excluded from education systems [3] [4]. This report shows that there are approximately 2,624,898 people with permanent limitations in Colombia, which corresponds to 6.3% of the total population, and it is found that people with speech and speech structures impairments have the least opportunities within the educational system [2].

The World Summit on the Information Society [5] seeks to promote the use of Information and Communication Technologies at all levels of education by addressing the particular needs of impaired people and disadvantaged and vulnerable groups. It also promotes the creation, diffusion and preservation of all types of content in different languages or formats and accessibility, whether they are educational, scientific, cultural or recreational.

According to [6], new technologies and their didactic applications turn totally or partially web-based education into a world of educational possibilities for impaired people, since it lets them access to quality training offerings, which are inaccessible in face-to-face environments. These new instructional modalities offer impaired people the opportunity to access training offers conducive to professional training, to participate in knowledge contexts and to access virtual cultural socialization environments.

Accessibility refers precisely to the design that allows impaired people to interact with buildings, products, services, etc. Its main objective is to provide equal access for people with disabilities, nowadays promoted both in the physical



















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