Chapter 13

Virtual Course of Accessibility of the Tecnológico Nacional de México and IT Aguascalientes: Analysis and Improvement Proposal

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ABSTRACT

This chapter described an analysis and those derived design improvements for an accessibility course offered by Tecnológico Nacional de México/IT Aguascalientes (ITA). The course is addressed to train professors for awareness and implementation of educational strategies that allow an accessible and inclusive learning environment. Enhancements found were oriented to makes easier teachers’ tasks when generating strategies for the creation of accessible educational content. All suggestions were derived from a usability analysis of both interactive elements and the structure of the course on the on-line learning platform Moodle. The study was performed by implementing several international standards and design guides such as the traditional web content accessibility guidelines (WCAG).

INTRODUCTION

Within education, the issue of accessibility is something that over time is becoming more important, in the case of information technologies there is the need for all websites to be visited by anyone, whether or not they have any physical or sensory disabilities and especially when they are E-Learning platforms.

Educational institutions must include accessible educational platforms, as they are a key resource for training. They allow access to a multitude of resources aimed at the management of training processes, such as content, activities, assessment tests, rubrics or the option of participation of members of the digital community: students, teachers, among others. So you can interact through video conferences and carry out monitoring and evaluation processes (Fernández, 2019).

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The lines marked in the international sphere have a clear commitment towards different people and groups. Inclusion, equality and equity are the goal to be achieved for several decades. A democratic and egalitarian society must take into account all the people who constitute it. When we design a product, well or service, human diversity has to be present; thinking about normal or frequent means excluding different people and, therefore, harming their rights.

The first thing is to recognize those who are invisible in the institutions for physical, communicational and/or cultural reasons. They must be able to participate in equal opportunities and how this materializes in effectively solutions that allow collecting, the conditions of possibility for different people to participate in the construction of the community. It is not a situation that can be addressed only by thinking about the student body, but also the official and the academic (Parra, 2019).

Regarding inclusion, it is well known that is another of the issues that take importance in education, as there are several factors that generate a degree of student marginalization, for example the physical, intellectual or learning conditions of individuals, therefore, it is necessary to identify if there are elements that allow the systems to be adapted to the diverse physical and cognitive needs of the students, such as those that present visual, auditory, speech or even motor problems; or adapt to the different ways of learning of each one. Full inclusion only occurs when the tool for accessibility is fully integrated with the rest of the educational platform, in this way no student who wants to use the resource is isolated.

According to (Fernández, 2019), when education directed to a standard subject is planned in education, exclusion processes are increased, especially for students with disadvantaged situations. From the design and planning of the curriculum, it is necessary to plan to meet everyone’s needs, eliminating barriers to learning and participation, and especially, for those at greater risk of social exclusion for reasons such as disability, cultural origin, etc.

Access to inclusive education is a development objective that should involve organizations of all levels and all sectors, regardless of the regional context. The reality is that we are all different and we need the same opportunities, so accessibility is a requirement that we must see reflected in all areas of our environment (Pickard, 2018).

However, most education professionals are not sufficiently trained in these issues and their correct application, for this reason the Aguascalientes Institute of Technology (ITA) seeks to implement educational and infrastructure strategies to achieve greater accessibility for its students. An example of this is the implementation of an educational learning model through an E-Learning platform through which students can carry out all study activities from any point inside and outside the institution.

The ITA is part of the network of educational centers of the National Technological Institute of Mexico (TecNM), which implements a “Distance Education Model”, which is a frame of reference and systematic operation for the offer of technological higher education in the non-distance and mixed school modalities, with the essential support of information and communication technologies. The objective of this model is to guarantee an increase in the coverage of educational services offered by institutes, units and centers, thus training professionals who are a determining factor in national and international development, with a broad perspective of accessibility, inclusion, equity and quality. Therefore, these qualities must be reflected in the same way on the platform, thus achieving an accessible and universal education. The foregoing, with the intention of strengthening the quality of professional training, generating a wide range of opportunities in the attention of students and creating favorable conditions for learning, within a framework of appreciation of individual differences with an inclusive, accessible attitude and innovative (ITA, 2019).