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## A Review on the Portuguese Enterprises Web Accessibility Levels – A website accessibility high level improvement proposal

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### Abstract

The Web accessibility issue has been subject of study for a wide number of organizations all around the World. The current paper describes an accessibility evaluation that aimed to test the Portuguese enterprises websites. Has the presented results state, the evaluated websites accessibility levels are significantly bad, but the majority of the detected errors are not very complex from a technological point-of-view. With this in mind, our research team, in collaboration with a Portuguese enterprise named ANO and the support of its UTAD-ANOGov/PEPPOL research project, elaborated an improvement proposal, directed to the Web content developers, which aimed on helping these specialists to better understand and implement Web accessibility features.

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## 1. Introduction

In a Time where the ability to access Information is considered a key issue and the Internet is one of the most used tools of accessing it, we should consider the relevance of developing websites that are accessible to all <sup>1-4</sup>.

The ability of a given person, with a disability or incapacity, to access a product or service or to execute a task in an equal manner as one without any impairment is, according to <sup>5,6</sup>, the clear and simple definition for the accessibility concept. By transposing the accessibility concept to the Web environment, it is possible to acknowledge that Web accessibility is the existence of Web interfaces and platforms that can be used and perceived by all users, in an equal manner.

By taking in consideration the considerable relevance of the Web accessibility topic, our research group assumed that it was extremely important to hold the knowledge on the Portuguese enterprises websites accessibility levels, in order to, not only fully understand the phenomenon, but also to achieve solutions to the existent Web accessibility problems. With this in mind, an accessibility evaluation to the websites belonging to the 1000 biggest enterprises with operation in Portugal <sup>7</sup> against W3C WCAG2.0 was made and the results of this evaluation were analyzed, discussed and used for achieving new inferences.

When considering the achieved results, it was possible to perceive that, from a disable or incapacitated person point of view, it is quite difficult to access the evaluated enterprises websites, thus precluding taking advantage of the products or services those enterprises have to offer. Despite the economic factor behind the presented results and facts, it is our opinion that the social and ethical factors should also be reviewed.

One of the mechanisms available to integrate people with a disability or incapacity in any society is the use of ICT in various activities relating to day-to-day <sup>8</sup>. Using these same technologies is advocated by the Nobel Peace Prize Ban Ki-Moon, and a new pacifying dimension is added to the global ICT context <sup>9</sup>.

The present paper is organized in six sections, being section 1 the introduction to the paper and section 2 and 3 those where the main theoretical concepts are presented. In section 4 the Web accessibility evaluation that was carried out is characterized and the achieved results are presented. Section 5 contains an improvement proposal for the accessibility errors that were most recurrent in the evaluated websites. Some final considerations are presented in section 6.

## 2. A Web Made For Everyone

In this section we intend to present, not only a contextual background to the Web accessibility topic, but also a refreshing and clear perspectives on the current concerns and visions regarding the referred topic.

### 2.1. Theoretical Background and Initial Perspectives

When analyzing the ICT and the positive aspects that they bring to the table, it is almost demanding to assume that these technologies are essential to the citizen's wellbeing and quality of life. This positive impact has been widely accepted both the political/social and scientific worlds <sup>10, 11</sup>. In times where the Information and Communication Technologies are being used in a never seen scale in our societies, one can perceive the compelling need for these same technologies to become accessible to all <sup>12-14</sup>.

Despite the fact that the term accessibility is normally associated with a physical characteristic of objects or buildings, by transposing the term "accessibility" to the ICT, it is possible to state that the term accessibility concerns the creation of usable and perceivable interfaces that can be easily used by people who have special characteristics, such as physical or cognitive disabilities, functional limitations or other problems <sup>15, 16</sup>.

Considering the previously mentioned, one can assume that the term defined by the existence of Web interfaces that present themselves usable and perceivable in the same way by both users without disabilities as well as users with some kind of disability, is in fact "Web accessibility" <sup>5, 16</sup>.

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