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Introducing Web Accessibility to Localization Students: Implications for a Universal Web

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ABSTRACT

The importance of web accessibility has spread throughout close technical disciplines, leading to new forms of collaboration between that area of study and other related fields, such as internationalization and web localization. Recent investigations have illustrated that web accessibility experts support the involvement of localization professionals in the achievement of a more accessible web for all, especially in the case of the multilingual web. However, most training institutions do not teach yet the basic technical competence on the matter. Within such research framework, over the last two years, a series of seminars on web accessibility have been taught both for undergraduate and graduate translation students at two European universities. The relevance of acquiring web accessibility knowledge and know-how was generally welcomed by all participants, who showed a high level of interest and motivation. Data gathered up to date have helped to develop a better informed theoretical framework about the participation of localizers in the web development cycle and their contribution to a universal web.

Categories and Subject Descriptors

K.7.1 [The Computing profession]: Occupations; K.7.4 [The Computing profession]: Professional Ethics – *Codes of good practice*; J.5 [Arts and Humanities]: Language Translation.

General Terms

Performance; Human Factors; Languages.

Keywords

Localization Training; Multilingual Web; Web Accessibility.

1. INTRODUCTION

Web localization, understood by scholars as a complex communicative, cognitive, textual and technological process by which interactive digital texts are modified to be used in different linguistic and sociocultural contexts, is guided by the expectations of the target audience and the specifications requested by initiators [4]. Similarly, accessibility is not an intrinsic characteristic of a digital resource, but is determined by political, social and other contextual factors, as well as technical aspects

[1]. The overlap between both areas and their shared interests towards the goal of an inclusive, accessible and universal web have been already brought to the forefront in previous research [2,4], but little or no adjustments have been made to localization curricula in order to integrate core skills acquisition related to web accessibility implementation. This paper provides insight into the extent of the success of introducing web accessibility to localization students and puts forward potential implications of an inter-professional teamwork approach to achieve the goal of a universal web.

2. BACKGROUND AND MOTIVATION

While the first web content accessibility guidelines (WCAG) reach their fifteen anniversary, compliance continues to be lower than expected [3]. Researchers in the field have pointed to the lack of awareness about accessibility issues by those responsible for websites as one of the main reasons for this failure (*ibid*). In the particular case of multilingual websites, localizers are considered as key actors within the product life-cycle. This follows from the multi-faceted nature of their profession, which requires not only traditional translation competences, but also an in-depth set of technological and management skills, including knowledge of main web authoring tools and mark-up languages such as HTML and XML [4]. With this in mind, we carried out a survey targeting web accessibility experts with the aim of clarifying localizer's expected commitment towards accessibility. Findings suggested that the achievement of an accessible multilingual web is a group effort and localization practitioners should be involved in it [7,8]. In the light of the conclusions drawn from that study, we argue that training on web accessibility is needed both at undergraduate and graduate levels to increase awareness and understanding of accessibility issues among the next generation localization community. We therefore designed and implemented a series of seminars for localization students as an initial pilot study, in order to measure the potential impact on a long term basis.

3. OBSERVATIONAL STUDY

Due to space constraints, the present paper mainly focus on general observations inferred from two out of the six seminars organized until present: one held at the University of Salamanca, Spain, in November 2012, and another one at the University of Geneva, Switzerland, in June 2013.

3.1 Students' Profile

Eleven undergraduate translation students (aged between 20 and 23, $\bar{x}=21$, $sd=0.33$; 3 male, 8 female) participated in the web accessibility module at the University of Salamanca. All students were Spanish native speakers and most of them ($N=7$ out of 11)

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were in their 4th year. None had previous knowledge on the subject. In Geneva, 25 students pursuing a Master's in Translation took part in the seminar (aged between 21 and 43, $\bar{x} = 26$, $sd = 1$; 6 male, 19 female). Fifteen students were in their 1st year of MA and 10 in their 2nd year. 68% of them were French native speakers and only three knew the basic web accessibility principles.

3.2 Seminars Setup and Outcome

Seminars were taught within the frame of the Localization and Project Management course at both Universities, with the approval of the corresponding lecturers. At the moment of the seminars, students had already acquired basic knowledge on web and software technology. The training included theoretical presentations and accessibility-oriented localization exercises, preceded and followed by task-related questionnaires. The author prepared introductory materials on web accessibility main concepts and best practices, as per WCAG 2.0. There were three hours allocated for the seminar in Geneva and six for Salamanca's, where we devoted the last two hours to discuss about web accessibility evaluation, repair and guidance tools that could prove useful in their future career.

3.2.1 Main Remarks from Labs

During the accessibility seminar at Salamanca, students were asked to localize a non-accessible English simple website into an accessible Spanish website, paying special attention at forms, tables and graphics, as well as textual content. They had one week to submit a final report on the task, describing steps followed and tools used. The evaluation of the exercises showed that students had managed to obtain a higher degree of accessibility, both in the source and in the target web product. The author observed a responsive use of HTML, but less effort was devoted to language-related aspects: translatable content remained unchanged in English, some readability problems were not solved and text alternatives for images were often inappropriate.

In the second seminar, held in Geneva, we placed more emphasis on showing how to find the balance between new technical aspects learned and the students' extensive linguistic background. At the beginning of the lab, participants were presented with the same website as in the previous seminar, but without CSS and images. This was followed by a 45min lecture, after which they were asked to perform the same localization task, this time founded on the complete site. Students' responses to the post-task questionnaire indicated that 88% of the participants had not recognized alt image or summary table attributes' values as such before the web accessibility presentation, thus not suggesting pertinent translation proposals. Also, 76% of the students reported that they would have liked to apply more changes as regards layout and textual content in the target website, in order to render it more accessible than the source. The latter suggests that localizers with web accessibility knowledge could potentially report to developers or clients problems found and solved them in the multilingual version of the site.

3.3 Students Feedback

Upon completion of each seminar, students replied to a general questionnaire about their advocacy for accessibility as future localizers. Interestingly, 80% felt accountable for the accessibility degree achieved in the target product and expressed their willingness to be more involved in the web development cycle. Most participants also highlighted the need to work as a team

together with web developers and other actors in the web production chain, echoing W3C WAI [5] message, with a view to work more effectively and prevent unnecessary redesign efforts at later stages.

4. RESEARCH INDICATORS AND FUTURE AVENUES

Although web accessibility modules have not been fully integrated in the translation and localization curriculum, as it has been already done in computer science-related courses [9], students have demonstrated interest in and commitment towards accessibility and the larger goal of a universal web, and have acknowledged the need to receive a complete training to perform localization tasks professionally, with web accessibility in mind. Web accessibility best practices were taken into account for the course final projects, which shows a high degree of acceptability of the topic. Our modules have also contributed to raise awareness at a faculty and university scale, notably among webmasters. Finally, observations made have also guided further work on the author's doctoral thesis, currently in progress. Difficulties undergone by students to improve textual accessibility and text alternatives adequacy have fed back into the current development of an accessibility-oriented controlled language (CL) tool [8] that will be evaluated in a large-scale experiment in November 2014.

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