



## Towards Defining the Role of Localisation Professionals in the Achievement of Multilingual Web Accessibility

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### ABSTRACT

Expertise in web accessibility matters has not been traditionally observed as a requirement for localisation professionals. Similarly, not enough evidence exists with regard their role as contributors to multilingual web accessibility. This paper presents the initial results of a study carried out with the goal of clarifying localisers' involvement in the achievement of web accessibility. Data gathered suggest that (1) localisation experts should have web accessibility knowledge as part of their skills set; and that (2) localisers' participation in multilingual web assessment for accessibility would be of added-value for evaluators.

**Keywords:** Multilingual Web; Web Localisation; Web Accessibility; Web Professionals

**RESUM** (*Cap a una definició del paper del localitzador en la consecució de llocs web multilingües més accessibles*)

Tenir coneixements sobre accessibilitat no constitueix habitualment un requisit per a desenvolupar tasques de localització de forma professional. D'igual manera, existeix poca informació sobre el paper que podria tenir el localitzador en la consecució d'una web més accessible. Les dades incloses en aquest article, recollides a partir d'una enquesta realitzada a experts en accessibilitat web indiquen que (1), els localitzadors haurien d'adquirir coneixements sobre accessibilitat com a part de la seva formació i que (2), les seves competències professionals podrien de ser rellevants durant l'avaluació de l'accessibilitat web de llocs web multilingües.

**Paraules clau:** Web multilingüe; localització web; accessibilitat web; professionals de la web

**RESUMEN** (*Hacia una definición del papel del localizador en la consecución de sitios web multilingües más accesibles*)

Tener conocimientos sobre accesibilidad no constituye habitualmente un requisito para desempeñar labores de localización de forma profesional. Del mismo modo, existe poca información acerca del papel que podría tener el localizador en la consecución de una web más accesible. Los datos incluidos en el presente artículo, recogidos a partir de una encuesta realizada a expertos en accesibilidad web, indican que (1) los localizadores deberían adquirir conocimientos sobre accesibilidad como parte de su formación, y que (2) sus competencias profesionales podrían ser relevantes durante la evaluación de accesibilidad web de sitios web multilingües.

**Palabras clave:** Web multilingüe; localización web; accesibilidad web; profesionales de la web



## 1. Introduction and Background

Considerable research efforts have been already devoted to investigating what factors can contribute to meeting the goal of delivering accessible websites for all, both at the web development and later assessment stages, such as inclusion and social issues (Yesilada et al., 2011). One important factor recurrently discussed in the literature is the level of expertise in web accessibility of the actors involved in the web cycle. It has been proved that it does affect accessibility audit results (Yesilada et al., 2009), and that communication between evaluators is crucial to achieve the 80% agreement level expected (Brajnik et al., 2012). In this sense, when accessibility audits are performed on multilingual websites, it would be expected from localisers to participate in that knowledge exchange too, as experts in multilingualism and intercultural mediation (Rodríguez Vázquez and Torres del Rey, 2012):

“Many accessibility techniques are embedded in the technology [...]. However, most such techniques are dependent on language and communication, and must be filled with actual representations and choices of content, layout, key conventions, informational structures, etc., which need to be recoded for different (or a comprehensive range of) user cultures (Rodríguez Vázquez and Torres del Rey, 2012: 30).”

Still, although the underlying rationale of localisation professionals' work is to render web content accessible to a broader audience characterized by a certain language and culture context, their connection has been put forward only from a general perspective (Gutiérrez y Restrepo, y Martínez Normand, 2010; Jiménez-Crespo, 2013), and little research has been carried out to combine both disciplines and study if localisers' area of expertise could benefit web accessibility. Within such research framework, our hypothesis states that accessibility does not represent an intrinsic quality of the source website and, thus, needs to be reexamined throughout and after the localisation process (Torres del Rey and Rodríguez Vázquez, 2013). In this study, we aim at obtaining an initial picture about web accessibility experts' perception on the matter, in order to able to define the localisers' role in that endeavour.

## 2. Research Methods

A survey research strategy based on an online questionnaire was chosen as a suitable method to answer the following research question: Does the community consider localisers as contributors to web accessibility of multilingual websites? In order to avoid potential misunderstandings, a short explanation about the meaning of localisation was included in the introductory page of the questionnaire. The survey, available online during six weeks, was distributed to relevant mailing list servers, such as the WebAIM discussion list, as well as via Twitter and LinkedIn, thus recruiting potential respondents through a “snowball” sampling method. Open-ended questions were coded following an inductive approach and allowed us to verify participants' consistency in their responses to multiple-choice questions.

## 3. Questionnaire's overview

The language of the questionnaire was English, and it was divided into two main sections: the first was designed to explore current procedures for multilingual web accessibility assessment (Rodríguez Vázquez and Bolfig, 2013); and the second served to collect data about experts' perceptions on the localisation professionals' potential contribution to the achievement of a higher degree of accessibility in multilingual websites. This short paper covers the results from data gathered in the last section of the questionnaire.

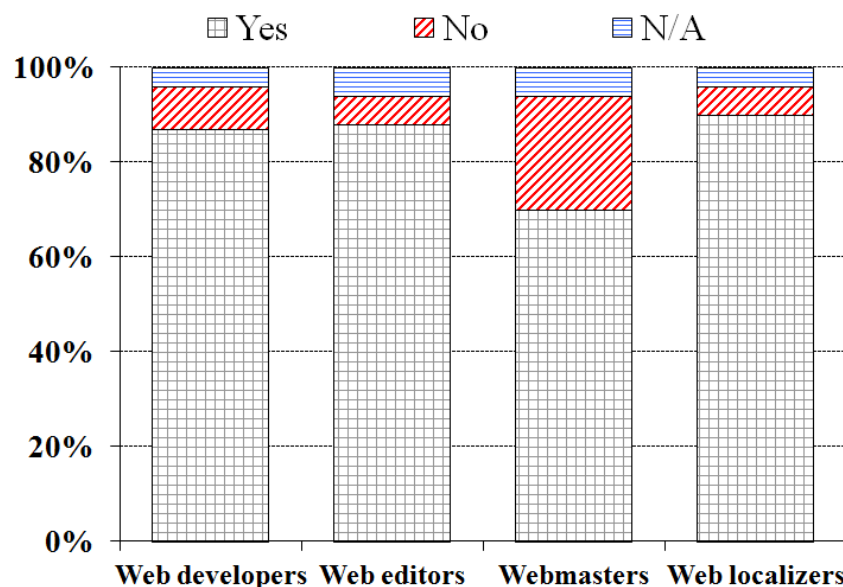


### 3.1 Participants' Information

The questionnaire was completed by 67 web accessibility experts (11 were people with visual impairments) from Europe (53.73%, N=36), North America (38.81%, N=26), South America (4.48%, N=3), Asia (1.49%, N=1) and Australia (1.49%, N=1), with a minimum two-year experience in web accessibility assessment. Around 68% of respondents mastered at least one foreign language other than their mother tongue (English being the most common as first and second languages among participants). Of the 67 participants, 15 (22%) reported that they never assess multilingual websites in their daily practices. Despite this lack of experience, we considered that their responses to open questions regarding localisation related aspects could be of interest and were therefore taken into account during the data analysis. Twenty-nine people (43%) indicated that up to 25% of the websites they evaluate are multilingual; 7 (11%), up to 50%; 4 (6%) up to 75%; 5 (7%) more than 75%; and 7 (11%) stated that all the websites they evaluate have more than one language version.

### 3.2 Preliminary Results

Based on similar research (Lazar *et al.*, 2004), web accessibility experts were asked about who should be responsible for making a multilingual website accessible. However, instead of only focusing webmasters, our research instrument was also administered to other web professionals (predominantly web accessibility consultants, developers, web designers and researchers in the field). Respondents appeared to embrace the belief that multilingual web accessibility is a joint commitment among developers, webmasters and content providers, including editors and localisers. Respondent R5, for instance, stated: "This is a group effort, and having more than one opinion and slant is important". Project owners and User Experience (UX) designers were mentioned by six respondents as two professionals groups who should be also involved in implementing a "responsible" website. It is worth noticing that, from the list of actors provided, respondents considered localisers to have a significantly higher level of responsibility on multilingual web accessibility than webmasters ( $t(66) = 2.97$ ,  $p < 0.05$ ), see Figure 1.



**Figure 1.** (stacked chart) Professional groups who should be responsible for creating accessible multilingual websites, according to web experts (% of votes)



Responses to the generic question “If you were assessing a multilingual website for accessibility, would you appreciate receiving also the feedback of the localisation professional(s) who adapted the web to the other language(s) available?” illustrate that web accessibility experts seem to agree that localisers’ involvement in the evaluation process could contribute to a better informed assessment: 66% replied ‘Yes’; 16% ‘No’ ( $t(66) = 5.42$ ,  $p = 0.00$ ). Seven percent of the respondents did not answer the question and the remaining 11% indicated that it depended on the web element or functionality they were assessing (e.g., images, text, multimedia content, etc.), placing especial emphasis on text content: respondent R44 said “If there is a noticeable difference in the accessibility or textual layout I would (accessibility is very concerned with plain, concise and understandable text, something that has to be maintained when content is translated)”, whereas R17 suggested the localiser’s presence should be continuous: “there is not only a need for automated tests dealing with multilingual issues, but also for a translator with basic accessibility knowledge sitting next to the accessibility auditor”.

In the particular case of images, most participants declared they would appreciate the localisation professionals’ help too. They could select among different statements to explain their reasons, and the response distribution was as follows: (1) ‘Images in the language version I am assessing might contain culture-related information that should have been taken into account in the localised versions’ (69%,  $N=46$  of 67); (2) ‘Images might vary from one version to another and I cannot assess the quality of their alternative text in other languages different than my mother tongue’ (34%,  $N=34$  of 67); (3) ‘Some images might have been removed or changed in certain language versions and I do not understand why’ (31%,  $N=21$  of 67). Broadly, web accessibility experts seemed to acknowledge localiser’s role regarding image adaptation. Respondent R65 pointed out the following: “Images may themselves contain text that would somehow need to be localised”, while R67 put forward a concrete case: “The images that are significant on our site are very technical. The localisation professionals would need to decide based on their knowledge of their local audience whether to generate different images or not”. As a general comment, one respondent (R44) suggested that it would be useful to develop an automated web accessibility checker for text alternatives in more than just one language, which supports the research path followed by Rodríguez Vázquez and Torres del Rey (2012). Nine respondents (13%) believed that asking the localiser about the accessibility of images is not necessary.

Finally, respondents were asked to indicate what would be the ideal accessibility assessment procedure to follow in the case of multilingual websites, in order to know the level of involvement localisers should undertake. We have decided to summarize the most representative opinions found in the qualitative data gathered from the 67 participants. A general tendency was observed as regards language expertise: most respondents explained that a collaborative team of native speaker experts and end-users for each language should be involved in the assessment phase. Data shows that culturally diverse and/or multilingual experts would be preferred for the task, but all seemed to acknowledge the challenge behind. In particular, one respondent (R59) from a bilingual country supported this opinion from a government website perspective: “It’s not easy to find accessibility evaluators that are simply bilingual. The result now is that the accessibility is excellent in the language of the evaluator and very uneven in the other language. A solution would be to have localisation professionals trained to evaluate only the ‘challenging multilingual components’ of accessibility (main text, images, table captions, form field IDs...)”.

Opinions about level of importance and priority given to native language version of the site versus localised pages testing are considerably unbalanced. An interesting approach repeatedly suggested was to select a set of representative pages of all versions available for the assessment, as well as a random selection of individual pages for each language version,



regardless of which one is the original source. Put simply, according to respondent R62, “just check it feature by feature, first one language, then the other”. Nonetheless, funding was often highlighted as a potential drawback: “Anything is possible, as long as you can find a client who is willing to pay for such detailed assessments”. Overall, 64% of the usable responses to this question (N=40 of 62) pointed directly or indirectly to the relevance of working closely with localisation experts or mentioned localisation issues as particularly laboured within the accessibility assessment process. Respondent R59, for example, supported localisers’ involvement from a culture and language transfer perspective: “I am a Francophone working in an Anglophone workplace; I am a WCAG [Web Content Accessibility Guidelines] trainer in French and English [...]; it is difficult to simply have a correct translation and a lot more challenging to take into account culture-related information”.

#### 4. Conclusion and New Directions

This study offers a valuable insight on web accessibility experts’ perceptions around the localisers’ potential as key actors in the achievement of multilingual web accessibility. Respondents seemed to agree that accessibility should become a primary goal for all people involved in the web development cycle, irrespective of the number of language versions available in a given website. Still, in the case of web multilingualism, localisation practitioners’ feedback was considered as particularly relevant during accessibility assessment tasks, especially for textual and graphic content. As regards accountability on multilingual web accessibility, localisers ranked #1, which leads us to believe that further research is needed on web accessibility training for these web professionals. In spite of the limitations to this study (small sample size, potential lack of localisation knowledge of the participants), it is interesting to highlight that some respondents found it was thought-provoking and invited to further discussion on the area. We believe data gathered could lay the ground for further interdisciplinary research work in the localisation and web accessibility domains. Hence, as a next step, we plan to explore if users’ experience when browsing multilingual websites improves when localisers bear in mind web accessibility challenges.

#### 5. Acknowledgement

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