Abstract

In this article, I will focus on the crucial areas relevant to website localization: definitions, background, the relationship between localization and translation, and key concepts in website localization.

Website Localization: Definitions and Recent Studies

Esselink (2000) defines localization as the process of adapting a product to a specific locale, that is to say, a group of individuals who share the same language, writing system, and other properties, which can be a group within the population of a country or a language community (Sandrini, 2005). Pym (2010) presents the definitions of fundamental concepts in this area: localization, internationalization, globalization, one-to-many, partial localization, reverse localization, and CAT\(^1\). Regarding localization, he states:

“Localization involves taking a product and making it linguistically and culturally appropriate to the target locale (country/region and language) where it will be used and sold.”

This definition includes the concepts of language and culture, which House (2015) refers to as “linguacultural”. She defines localization as a process in which a product is adapted based on the local conditions of the "receiving linguacultural community". Other researchers consider more aspects in the definition of localization. Palumbo (2009), for instance, defines localization

\(^1\) See Pym (2012)
as the process of adopting a ‘product’—e.g. a website, comprising textual, para-textual, meta-textual information—to a local market considering three main aspects: linguistic, cultural and technical. Website localization can, therefore, be defined as the process by which a website is modified for a particular locale (Yunker, 2002).

According to Schaler (2010), “localization is the linguistic and cultural adaptation of digital content”. To Schaler, localization includes translation and a wide range of additional activities. Despite its broad-spectrum, Schaler limits localization to digital content, whereas any product and their packaging can be localized before being presented to the target market. Schaler’s approach, however, might in part be because the term localization was initially used for recreating the local version of computer software (O’Hagan and Ashworth, 2002).

Sandrini (2005) has discussed website localization and translation and, more specifically, the clarification of fundamental notions in localization, shedding light on why this multimodal process can be considered a new form of translation. He also proposed a strategy “to apply from translation studies approaches to website localization”. According to Sandrini, there are two main perspectives: functional and commercial. For the former, having discussed the user’s demands and the client’s goals, he suggests a new definition for website localization as the process of “modifying a website for a specific locale according to the goals outlined by the client.” (Sandrini, 2005, p. 133).

Moreover, Sandrini believes that website localization plays a vital role in international marketing strategies and offers guidelines for translators to follow so that they can modify a website in such a way that the objectives of the clients are met. The commercial aspects he later describes apply not only to website localization projects but also to all translation jobs.
Sandrini mentions that to train experts in localization as a “recognized professional practice”, the following are needed:

§ Basic knowledge of international marketing;

§ Business models of localization as multilingual information management;

§ Strong emphasis on translation technology as website localization which could be a challenge for translators

Jiménez-Crespo (2013) argues that gradually the process of localization has to be considered in a larger cycle to be interactively in touch with other means (GILT: Globalization, Internationalization, Localization, and Translation). To this end, Dunne (2006) believes that people with different specialties such as management, engineering, translation, localization, and information technology should work together collaboratively. Sandrini (2008, p. 1) defines globalization and internationalization as follows:

§ Globalization, or the commercial process of “making a product or service in multiple regional markets”;

§ Internationalization, or the process of making a product adaptable to a specific market

Moreover, Sandrini (2008) discusses two important aspects of localization, involving the localizable content and types of information on a website. In terms of the localizable content, he distinguishes the following categories:

§ Common content: text, images, links;

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2 A different view is that “it might be more logical to reverse the acronym: TLIG would more accurately reflect the historical evolution of the industry and the sequential way in which practitioners and corporate strategists have become aware of the relative importance of these processes” (Dunne, 2006, p. 4)
§ Multimedia assets: audios and videos;

§ Application-bound assets: files which require other software applications such as MS-Word or Adobe PDF documents;

§ Transaction assets: Information on shopping online;

§ Community assets: ongoing online discussions in forums and chat rooms.

He labels different typologies of information on websites as static, dynamic, and semi-dynamic. Static information deals with “records of historical events, biographies, documentation of hardware and software, economic figures, manuals, laws and bills, and legal documents, etc.” (Sandrini, 2008, p. 10). Dynamic information encompasses sports results, the changing rates in stock, online prices, etc. Semi-dynamic information is the data about the staff or employees in a company or organization, biographies of living people, and so on, which might change over time.

**Why Website Localization**

Based on Internet World Stats³, 58.7% of the world’s population were internet users in 2019. Violino (2001) asserts that in order for companies to reach more target markets internationally, the obstacles of linguistic and cultural differences should be removed. House (2015) states that due to developments in the World Wide Web⁴, translation has moved forward and the demand for it in different industries is growing. Business owners have been striving to enhance their

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⁴ “A global interlinked hypertext system that uses the internet infrastructure to network client workstations and servers all around the world based on the Hypertext Transport Protocol (HTTP)” (Horak, 2008, p. 545)
presence in the WWW to acquire visibility and influence in their markets (see the 2020 Web Localization Report Card). This can be done in two ways: developing globalized websites regardless of how culture is perceived in the target audience; or introducing cross-culturally competent web pages within the same website (Simon, 2001; Luna et al., 2002; Singh and Pereira, 2005; Singh et al., 2009). Previous studies investigating cross-cultural competence in websites conclude that international website users prefer locally adapted content and culture is regarded as a medium embedded in the target audience values (Simon, 2001; Tsikriktsis, 2002; Luna, Peracchio, and de Juan, 2002; Singh, Zhao, and Hu, 2005).

Regardless of the reasons why a website is created (online shopping, company profile, resume), it is important to encourage visitors to interact with the website (Singh, 2012). In order to grow traffic on a website, assessing its usability is paramount. There is a positive correlation between the localization of a website and its usability. As the level of localization increases, the usability also improves (see Rua and Liang, 2003). According to Keevil (1998), usability indicates “how easy it is to find, understand, and use the information displayed on a website”. In other words, usability is defined as the ease with which website visitors can locate the information they need. Singh (2012) adopts a similar definition, adding that there are some goals to accomplish for a website visitor as far as usability is concerned, such as shipping, finding information, filling out forms, and interacting on discussion boards or forums. “Thus, website usability measures the performance of the website in terms of its ability to engage users and allow them to accomplish specified goals” (Singh 2012, p. 244).

**Background of Website Localization**

In the early 1980s, the emergence of desktop computers can be considered a milestone in the history of technology and a necessary condition for the development of localization. Esselink
(2006) explains that as developers in computer hardware and software began to expand their markets in Europe, the US, Asia, and Australia, the need to localize products for international markets increased steadily. In the 1990s, the Internet started to grow and made fundamental changes to the economy (Chao, Chen, Singh, Chao, & Hsu, 2012). “Website localization is a specialized service that has emerged in recent years (since 1999)” (Van der Meer, 2002, p. 10). So, it can be inferred that there are also myriad opportunities for researchers to investigate different aspects of localization and translation. According to Esselink (2006), it was in Ireland that international companies employed most translators, localization engineers, and project managers for training purposes, as the Irish government provided these companies with subsidies for each employee. More specifically, in the early 2000s, website localization played a major role in international marketing where “localization teams would typically be coordinated by a project manager to oversee schedules and budgets, a linguist to monitor any linguistic issues, an engineer to compile and test localized software and online help and a desktop publisher to produce translated printed or online manuals” (Esselink, 2006, p. 25).

Schaler (2008) identifies three crucial phases in the development of localization. He refers to the first phase as “ad hoc solutions” to “ad hoc problems”. In this period, 1985-1995, it was believed that starting a new localization or translation project for a second version rather than updating the first translation of a product would be more economical. As a result, translators would not use the translation features of a first version for the second one. According to Schaler (2008), from 1995 to 2005, localization achieved a “degree of maturity” when a few organizations were able to publish “best practice recommendations” in this field, namely the

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5 Software firms had their own localization services but realized that they could easily outsource them to other service providers. Established in 1980, INK was one of the first European companies to provide translation services as an outsourced organization (Esselink, 2006).
application of user interface localization platforms (Catalyst and Passolo) and translation memory systems (TRADOS and IBM Translation Manager). Since 2005, the third phase of localization has been ongoing. Schaler lists some fast-growing localization platforms such as Lionbridge and SDL as evidence for this move.

Localization as a Form of Translation?

Considering language as a cultural symbol, Luna, Peracchio, and de Juan (2002, p. 398) define language as “expressing the concepts and values embedded in culturally bound cognitive schemas.” They also posit that a word in a specific context such as a website might activate a particular cultural concept or value, while in another language it might not. This feature can be identified using the conceptual feature model (see de Groot, 1992)\textsuperscript{6}. Referring to this definition, it can be implied that there are many other functions of the language which are beyond communication (Taanonen 2014). “The extent to which consumers identify with their native language thus needs to be taken into account alongside their capacity to use another language” (Holmqvist, 2009). Kralisch (2006), also, states that written language has greater importance when it comes to providing information for a specific product or service in the context of the World Wide Web.

A lot of research has explored the features of international companies’ websites and how they should be modified and adapted to the local cultures, some of which will be discussed in this section. Troestler and Lee (2007) describe how organizational and national cultural aspects of international companies are perceived in the world of business. They state that once a company is established, growing market share and benefit should be a priority. However, the way “the

\textsuperscript{6} “According to the CFM, words in each language activate a series of conceptual features. The features activated by one word—for example, dinner—are not necessarily the same features activated by its Spanish translation equivalent, cena. Hence, dinner may be associated with the concepts evening and convenient, while cena may be associated with the concepts evening and family” Luna, Peracchio and de Juan (2002, p. 398).
organizational culture, corporate identity and core competencies” are defined in this fast-growing industry should be taken into consideration when it comes to internationalization strategies (Troestler and Lee, 2007, p. 25). Different researchers agree that adapting to a different culture, and customer behaviour is crucial for allowing a company to operate and compete with others (e.g. Luna, Peracchio, and de Juan, 2002; Simon, 2001).

Kralisch and Berendt’s (2004) research investigates the impact of different cultural variables on the search behaviour of Internet users. Results indicate that culture plays an important role in the amount and type of information provided for users. As a result, culture and “thinking patterns” determine the way users behave on the Internet. This should be taken into consideration when it comes to localizing a website, as some cultures require more detailed and encompassing information. In contrast, others feel more comfortable when browsing a website without much knowledge. Kralisch and Berendt’s findings fit well with what Singh and Baack (2004) and Tixier (2005) have identified regarding the impact localizing a website has on its users.

Bahri and Mahadi (2015) investigate the translatability of culture in website localization. Their study involved 18 Iranian website localizers who had expertise and experience working with Arabic, English, French, and Persian. Bahri and Mahadi combine the theoretical frameworks of O’Hagan and Ashworth (2002) and Singh and Pereira (2005) to investigate how variables such as ideology, pictures, symbols, colours, branding, navigation, and written content could be essential in directing the cultural content of websites. Their quantitative research shows that the variable of ideology, with a mean of 4.33, is the most crucial one. Other factors follow in this order of importance: pictures, symbols, colours, branding, written content, and navigation.

7 Tixier (2005) found that localizing a website can lead to an increase in e-sales of 200%.
They also conclude that the process of localizing for branding is the most challenging part compared to other variables. This research implies that localizers within the Iranian community face various challenges in localizing pictures, ideology, and branding. Translators and localizers must be aware of extra-linguistic features of the process as cultural awareness makes for a more effective result.

Economic factors have a direct impact on designing and translating websites; a company may reduce the elements related to a specific culture to promote its products internationally (Charalampidou, 2006). In this regard, Tong and Hayward (2001) investigate the relationship between the language of a website and how its users and viewers welcome it. They conclude that websites in the users’ mother tongue are viewed more favourably than the English versions, no matter what the users’ proficiency in English is. As a result, the websites that can communicate with users in their native tongue are more likely to produce immediate sales. When a company provides a website in its users’ mother tongue, we can infer that the website has been developed for a specific country, region or even person. Thus, the assumption made is that the company cares about its users. This care creates a sense of rapport between the supplier and the user. Providing a website in the users’ mother tongue is not the only step an organization should take. There are other points to take into consideration when it comes to this task, such as extra-linguistic and cultural particularities. Charalampidou (2006) discusses the Greek-language version of the Vodafone telecommunications company website. She finds that the same style, format, and colour exist in both the English and Greek translations, and that red is a significant element of the design. What is more, the slogan “now” and brand name “Vodafone” are left untranslated. Charalampidou (2006) concludes that the AIDA advertising

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8 See Sandirni’s 'Website Localization and Translation’ in MuTra 2005 MuTra 2005–Challenges of Multidimensional Translation: Conference Proceedings, where he clarifies the main concepts of localization as a new form of translation with its specific facets such as hypertext and multimedia.
method, which stands for attention, interest, desire, and act, was used in the website since the slogan and brand name are two important items to consider. The slogan "Now" can convey the message that if the customers purchase at that specific time, they will get a good deal for their money. She concludes that the issue of culture is highly important in localizing a website because cultural elements were evident in the Greek version of the Vodafone website. She also concludes that the decisions localizers make should align with the owner’s purpose in localizing the website.

The interdisciplinary premise of TS has established a platform for ideas from other fields of study, such as information technology, sociology, management, etc. In the field of information technology, for example, Sandrini (2008) mentions “some of the most popular file formats on the Web” for website localization, including:

§ HTM/HTML (Hypertext Mark-up Language), is localizable and translatable;

§ XML (Extensible Markup Language), is localizable and translatable;

§ CSS (Cascading Style Sheet) is not localizable;

§ XSL (Extensible Style Sheet Language), is localizable and translatable;

§ JS (JavaScript) is localizable and translatable;

§ ASP (Active Server Pages), is localizable and translatable;

§ PHP (Hypertext Pre-processor) is localizable and translatable;

§ JSP (Java Server Pages), is localizable and translatable;

§ GIF (Graphics Interchange Format), is not localizable (only when text is embedded);

§ JPG (Joint Photographic Experts Group), is not localizable (only when text is embedded);
§ PSD (Photoshop Document) is localizable and translatable when one of the layers contains some texts.

The incorporation of Management and Translation Studies can help businesses engaged in the virtual world make better decisions to attract more clients. Shneor (2012) has investigated the influences of culture, geography, and infrastructure on the decisions website owners make before and during localization of their websites. By observing 440 “home-target country dyads” from nine airlines in Europe, using the framework introduced by Javalgi and Ramsey (2001), Shneor attempts to assess “the choice between launching and not launching a market specific website for different country markets” (Shneor, 2012, p. 353). He concludes that there are five useful variables in deciding to launch a localized website:

1. Website traffic from a foreign market;

2. The physical distance between the home and the target market. The higher the gap between home and target market, the lower the probability of establishing a localized website;

3. Demand conditions, i.e., the localized content of airline websites for frequent international travellers is not essential;

4. Competition intensity;

5. Cultural distance.

Rau and Liang (2003) combine both processes of internationalization and localization as well as improving the usability of websites by applying usercentred methods. The first step entailed the development of a usage scenario for the website under investigation, Honeywell.com. Next, they commissioned three Asian usability specialists to carry out a heuristic evaluation of the website. Usability problems were found and discussed. The researchers used cluster analysis
for their data. Finally, to investigate the performance of users from Asia, a measurement test was conducted. Their results show that the user-centred design approach leads to the improvement of website usability in the various developmental processes of a website’s life cycle.

Many projects have set out to determine best practices for website localization for specific regions. Chao et al. (2012) have analyzed multilingual websites of international companies in the Chinese market. They aimed to assess the level of localization these companies have on their websites for customers and users in China. They also attempted to validate the study of Singh, Toy, and Wright (2009), which will be discussed in detail in the following paragraphs. Chao et al. (2012) selected 100 websites as their final case studies. Their quantitative research shows that several companies’ websites in China demonstrate best practice. For example, “The support page on the Dell China site covers very detailed information on Dell support service to the customers” (Chao et al., 2012, p. 256), while the Chinese localized version of eBay provides its users and customers with “products uniquely designed” for China and other countries. Their study validates the framework Singh et al. (2009) present for localizing websites. However, Chao et al. (2012) do not discuss theoretical frameworks for translation.

Translation scholars have offered various approaches to different types of research in this field (Munday, 2001). One example is the analysis framework mentioned above to establish the overall quality of websites proposed by Singh et al. (2009), which covers content localization, cultural customization, local gateways and translation quality. They define these categories as below:

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9 Cluster analysis refers to the process of finding out which objects are similar in a set (Romesburg, 2004).
§ Content Localization: This encompasses equivalency, relevancy, navigation, support, and currency;

§ Cultural Customization: This includes cultural values, cultural themes, content adaptation to the local culture, promotions which are unique to the target community, colours, graphics and web page design;

§ Local gateway: This deals with finding the target locale’s web pages, which involves accessibility;

§ Translation Quality: This means how well the source text has been translated for the target community.

First, Singh et al. (2009) looked for Spanish language websites owned by companies from the US. Then, they selected 208 companies for their investigation. Via content analysis, three bilingual raters, and inter-raters, the researchers considered 14 variables listed below: 1. Number of English pages 2. Number of Spanish pages; 3. Percentage of Spanish–translated web pages; 4. Content depth; 5. Content synchronization; 6. Navigation; 7. Website service and support; 8. Web page structure; 9. Graphics; 10. Colours; 11. Promotion of products and services; 12. Hispanic gateway visibility; 13. Hispanic URL usability; 14. Translation Quality. Their study shows that to create “a high-quality localized website”, the variables of translation quality and local gateway should have higher priority. This confirms how important translation is for localizing websites. The researchers also report some progress by US companies in localizing their websites for the Hispanic community in the following areas:

1. Content depth;

2. Synchronization with English language web content;
3. Navigation aspect;

4. Quality of translation from English to Spanish.

That said, “there is great potential for enhanced localization efforts in page structure; graphics and colours; promotion of products and services unique to Hispanics.” (Singh et al., 2009, p. 291).

Research into website localization and internationalization can be both helpful and practical for expanding business for companies active in e-commerce. Tixier (2005) states that when the process of localization has been done effectively, an increase of 200% can occur in a company’s e-sales beyond “its language borders”. Proposing a rubric for both the website localization process and its evaluation is likely to help website owners achieve their popularity goals among clients and users.

**Localization among Translation Theories**

In the 1980s, having proposed the Skopos theory, Hans Vermeer created a new perspective in Translation Studies. The translational action aim of the translatum is imposed by or negotiated with the commissioner (the person requiring content to be translated). The purpose in commercial web localization is the same both in the source text and in the target texts, which is to generate traffic or sales. On the other hand, the main difference lies in the fact that web-texts impose restrictions on translators, such as maximum text length due to web page design. Also, explicitation may not fit in; instead, one can use hypernyms, replace subordinates with gerund constructions or even with terms that bear a more real meaning. When considering the factors that influence the composition of the original text, the main difference between a generic version to be translated and web content translation is that the author of the former does not (generally) plan to have it translated into several languages; the translation as part of the
.localization plan on a commercial website will take into account from early stages, that is, from the globalization and internationalization stages, that the text will be localized to several locales. For example, the producer of the original version, instead of using American English, could use International English or another standard, a language free of slang, of vocabulary specific only to certain regions, or particular grammar structures. This can be achieved both by using a more general language and by finding/delimiting text segments. In practice, it is challenging to establish text structure and styling. Yet, on websites, one can distinguish between button texts, menu texts, short informative texts, full-length texts, texts used with media elements, etc.

Another relevant functionalist theory that leaves ample room for application to web localization is Christiane Nord's (1997). Of particular interest is the distinction she makes between documentary and instrumental translations (Similar to House’s overt/covert model). Instrumental translation “serves as an independent message transmitting instrument in a new communicative action in the target culture, and it is intended to fulfil its communicative purpose without the recipient being conscious of reading or hearing a text which, in a different form, was used before in a different communicative situation.” (Singh and Pereira, 2005, p 81) In the case of website localization, this is only applicable to culturally customized websites.

Instrumental translation accomplishes the same functions as the source text (convincing users to take action, buy a product or service) and is called by Nord “function-preserving translation”. Additionally, Nord distinguishes three forms of this translation type: equifunctional (e.g. instructions for use), heterofunctional (e.g. Gulliver's Travels for children) and homologous translations (e.g. poetry translated by a poet)39. Translations of commercial web pages maintain the same function as the source texts across the various localized web pages. Thus, in this case, the strategy applied is similar to equifunctional translations, ensuring business to consumer or business to business communication.
Nord defines documentary translation as a “type of translation process which aims at producing in the TL a kind of document of (certain aspects of) a communicative interaction in which a source-culture sender communicates with a source-culture audience via the ST under source-culture conditions.” (Nord, 1997, p 138).

In web localization, documentary translation is used for product features and specifications, “about us” and “contact us” and other pages. If the branch in the target economic area is separate from the headquarters, the instrumental approach would be more appropriate as the information contained will be specific (different address, different contact details, etc.).

The instrumental translation is defined as a “type of translation process which aims at producing in the TL an instrument for a new communicative interaction between the source culture sender and a target-culture audience, using (certain aspects of) the ST as a model.” (Nord, 2014).

In the case of website localization with a focus on the end-user, the translator has to produce in the TT an output that should be perceived as an original and uses as a starting point keywords and references used by the web-users in search engines. This view is in accordance with Mona Baker’s perspective on the role of the translator: “Like any writer, a translator has to take account of the range of knowledge available to his/her target readers and of the expectations they are likely to have about such things as the organization of the world, the organization of the language in general, the organization and conventions of particular text types, the structure of social relations, and the appropriateness or inappropriateness of certain kinds of linguistic and non-linguistic behaviour.” (Cited in Lako, 2014, p 47) This approach is essential for online businesses in the era of inbound marketing. (Fishkin and Høgenhaven, 2013).
According to Lako (2014), equifunctional translation is used on websites in cases such as product manuals. Heterofunctional translation in commercial website localization may primarily be used if the target market based on age differs from one market to the next. This is not the case as a website will already have adapted its source content to various age groups; hence the localization team will localize content already tailored to an age group. For example, physical products may be built modularly and have simpler modules for children and more advanced modules and features for adults. An even more illustrative example of a modular product, aimed at various age groups, might be that of online image editing software. For children, there may be fewer buttons and controls.

**Conclusion**

Investigating cross-cultural competence of websites among various languages and cultures has received very little attention in academic research. According to Holmqvist and Grönroos (2012), multinational management and marketing explores the concept of language. For many languages, though, this seems to be missing. Areas of communication have been investigated to some extent in international marketing and Translation Studies in different countries. However, previous studies have focused mainly on marketing, advertising, branding, or translation only and have not investigated comprehensive cross-cultural competency of foreign language websites and have not carried out the actual website localization process, neglecting the interactive nature of communication.

According to the 2020 web localization report card, more companies and organizations are investing their resources in reaching the global market using localization and globalization strategies through their websites. This trend is developing as international organizations tend to sell their products and present their services. Thus, more research is needed to understand
better language-related issues occurring in cross-cultural communication between international organizations and the target e-audience. Throughout this communication, translation is an integral element due to the importance of language; it needs to be reflected and acknowledged on the localized version of the website.

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