

Localizing E-Learning

Puja Anand
Knowledge Platform
Chief Content Officer
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As companies set up large operations in Asia, they face the challenge of training staff in the region quickly and effectively. Traditional classroom-based training sessions conducted by experts are inefficient and insufficient because of the sheer volume of training required and language barriers in most Asian countries. E-learning, localized for various Asian countries, presents itself as a viable solution to this challenge.

This paper presents the process of localizing e-learning content effectively. It is based on Knowledge Platform's experience in localization over the last two years.

“Any translation which intends to perform a transmitting function cannot transmit anything but information-hence, something inessential.”

- Walter Benjamin (1892-1940), German critic, philosopher
Illuminations "The Task of the Translator" (1955; ed. by Hannah Arendt, 1968)

1. Components of Localization

It is easy to mistake localization to be just the process of translating e-learning content to a specific language. Indeed linguistic adaptation, which includes translation and repurposing of an e-learning course using the translated text, is a key activity in a localization project. However, in our experience, there are two other types of adaptations necessary to completely localize an e-learning course, substantive and cultural adaptations. The following sections describe these types of adaptations in more detail.

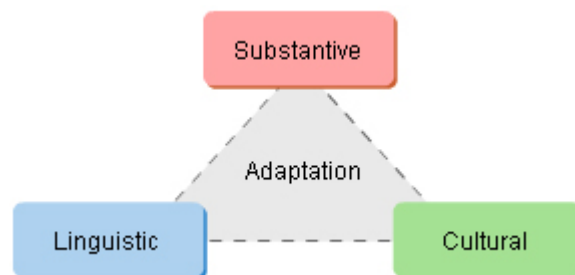


Figure 1: The Three Components of Localization

Linguistic

Linguistic adaptation involves translation of a course and its elements. It also extends to re-engineering any underlying linguistic functionality, such as interactions requiring text entry by users. Examples of e-learning course elements that may be affected by linguistic adaptation include:

- Textual descriptions on screen and in graphics
- User Interface
- Browser window titles
- Text input fields etc.

Substantive

Substantive adaptation involves modifying the substance of the content for local audience. Such modifications are necessary when the content or parts of it are location-specific. Examples of e-learning course elements that may be affected by substantive adaptation include:

- Rules and regulations, specific to the geographical area
- Cases
- Examples
- Abbreviations
- Terminology etc.

Cultural

Cultural adaptation involves contextualizing the content for a specific culture. Cultural adaptation requires an understanding of the target culture on issues that are usually not well documented. Examples of e-learning course elements affected by cultural adaptation include:

- Names, titles and forms of addressing people
- Icons
- Symbols
- Graphic style/photographs

2. Internationalization Versus Localization

When e-learning courses are localized as an *afterthought* - after the core version (most often in English) is developed and deployed - it is common for budgets to overrun and teams to be frustrated by a process that just doesn't seem to work. Often, important components need to be redesigned and development started from scratch, making localization too expensive and vulnerable to errors.

To avoid these potential pitfalls, localization needs to be an integral part of the entire e-learning design and development. Planning for localization needs to begin before even the core course is designed. In other words, an e-learning course first needs to be internationalized before it is localized.

The Localization Industry Primer (2nd Edition), published by LISA- the Localization Industry Standards Association- describes internationalization as:

“Internationalization primarily consists of abstracting the functionality of a product away from any particular language so that language support can be added back in simply, without worry that language-specific features will pose a problem when the product is localized.”

The diagram below describes the process of internationalization and localization in the context of e-learning courses.

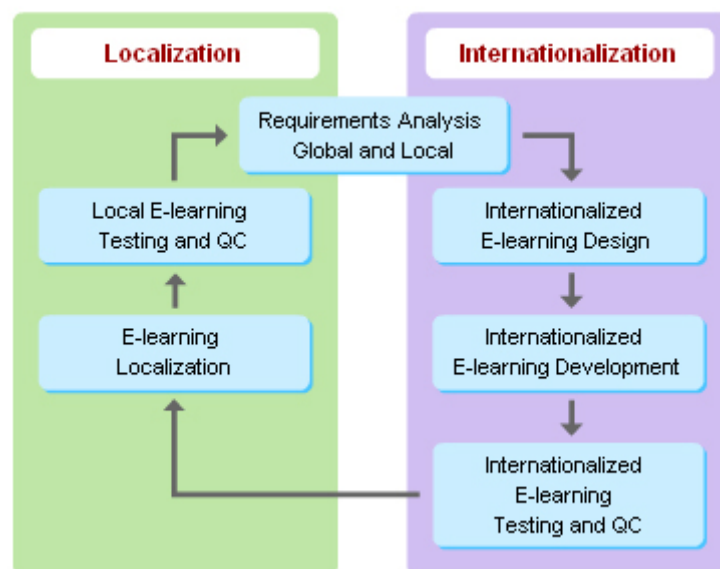


Figure 2: The Global E-learning Development Cycle (Adapted from LISA)

3. Impact of Internationalization on E-learning Design

Internationalization of e-learning impacts several areas of e-learning design. E-learning teams, used to designing for one language, need to unlearn many design standards and adopt new ones. In the process, several trade-offs are required that call for objective and, sometimes, tough decisions. This process is difficult and takes longer than traditional design. However, the investment made in the design phase of internalization pays itself back several times over in the localization phase, especially when several languages are involved.

We have classified the areas impacted by internationalization into four categories: content, screen, media and technical design.

Content design

While designing content outline and structure, instructional designers and Subject Matter Experts need to identify region-specific *localizable content* from generic material. While this may be self-evident in some types of content areas (e.g. money laundering laws), there may be need for additional upfront research in other content areas (e.g. examples and case studies of money laundering). Both substantive and cultural issues are relevant here.

Having identified *localizable content*, it is important to create technical architectures that allow easy modification of these contents without having to disturb the generic content. These technical architectures can be macro-level, separating learning objects or modules, or micro-level, separating and tagging content at page level.

Screen Design

Screen design is primarily impacted by linguistic issues. Characters, words and sentence structures vary across languages. In some Asian languages (e.g. Mandarin, Japanese), a concept can be expressed using characters that take far less screen space than English words, while in some others (e.g. Bahasa), more space is needed to express the same concept. This aspect affects several elements of screen design, such as:

- Placeholders for titles, dialogs etc
- Text placement (or wrapping) around graphics
- Design of UI elements, such as buttons etc.

When internationalizing, the impact on these elements needs to be kept in mind and several standards defined/adapted for the amount of text, layout and use of placeholders on screens.

Media design

While internationalizing e-learning, media design is primarily impacted by cultural issues and to a smaller extent by linguistic issues. In the process of internationalization, some of the basic decisions regarding media design need to be reviewed (e.g. use of photographs). The overall graphic style needs to be evaluated for its acceptance and familiarity in target countries. The use of icons and symbols also needs to be reviewed - they may not mean the same in another culture. The same holds true for props and items of daily use - a mail box may look very different across Asia and a piggy bank is not an accepted symbol of savings across cultures.

In addition, it is important to define standards for embedded text in graphics. Although the use of text within graphics is a powerful tool to explain difficult concepts, localizing this text within the constraints of the graphic image is perhaps the most tedious part of any localization activity.

Technical design

The aim of internationalization is to facilitate localization. Technical design is key to the fulfilment of this promise. The process of localization can be simplified and de-skilled to a large extent by using a well thought through technical design.

When designing the technical solution, it is important to visualize how English-speaking teams will develop localized content and troubleshoot problems. This often results in redesign of some of the basic features of the development and testing environments. Examples of such redesign include the use of XML as the authoring environment for text and development of better testing methods for randomized question pools.

The diagram below summarizes the impact of adaptations required for internationalization on the various aspects of design.

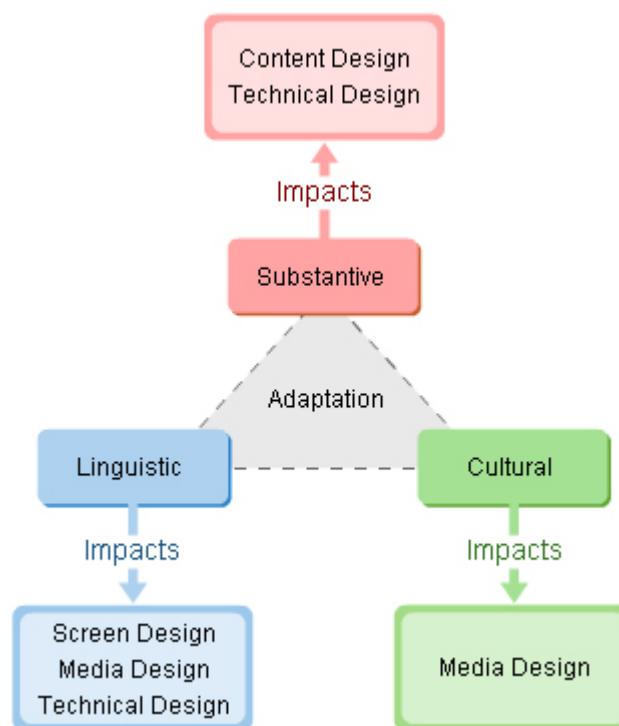


Figure 3: Impact of Internationalization

4. Conclusion

Localization carried out in isolation and as an afterthought has inherent problems of high cost and poor quality. As long as localization is considered an add-on, localized versions will continue to be poor cousins to original English versions.

The alternative is to begin the e-learning design process with internationalization. Internationalization impacts several basic aspects of course design, and forces designers to modify and adapt their initial design to meet the new needs of localization.

This initial and upfront investment provides several benefits. Localization can be done faster, and at a lower cost. The pressure on the local quality control team is also reduced because internationalization makes the localization process inherently less error-prone. The benefits are especially rewarding when localization is needed in several languages.

References

The Localization Industry Primer (2nd Edition), published by LISA- the Localization Industry Standards Association (www.lisa.org/products/primer.html).

About the author

Puja Anand is the Chief Content Officer at Knowledge Platform, a leading provider of innovative e-learning solutions. For more information, please email Puja at panand@knowledgeplatform.com.

To learn more about Knowledge Platform, please visit www.knowledgeplatform.com or contact info@knowledgeplatform.com.

Knowledge Platform
19 China Street
03-02 Far East Square
Singapore 049561
Tel : 65-6236 7681
Fax: 65-6220 7031