ENLASO®

Best Practices White Paper:
eLearning Globalization

ENLASO Corporation

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Table of Contents

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Introduction

More and more multinational companies are starting to understand the economic return from investing in eLearning, as it offers a very cost-effective approach to training compared to conventional classroom programs. Lower training costs, increased employee retention, and the delivery of better goods and services are just a few of the many benefits that motivate companies to invest in eLearning. In fact, a recent study by Training Magazine estimates that organizations that have deployed eLearning instead of conventional instructor-led training are saving between 50% and 70%.

In 2007, the US eLearning market accounted for roughly $17.5 billion. San Jose, CA-based market research firm Global Industry Analysts, Inc., estimates that the global eLearning market will account for approximately $52.6 billion by the year 2010. Despite recent economic conditions, signs point to continuing growth in the eLearning market because of the ability for eLearning to satisfy budget reductions in costs per hour of training.

While the US enterprise eLearning market accounts for nearly 60% of the current worldwide market volume, European and Asian based organizations are expected to contribute profoundly to growing the worldwide eLearning market over the coming years. Thus, the global eLearning market is expected to reach a compound growth rate of 25-30% through 2010.

Challenges

In recent years, the cost for deploying a single-language eLearning system has steadily decreased. Yet many companies are facing numerous challenges when attempting to localize those eLearning applications for one or more foreign markets. Localizing today's highly complex—and often multimedia-rich—eLearning applications is not a simple undertaking because eLearning products are often developed with only English speaking audiences in mind. Only later, when the need to localize the eLearning product is identified, does the localization manager get involved.

With complex linguistic, technical and content development requirements, multilingual eLearning initiatives present some of the most challenging localization projects. Depending on the unique learning and technology needs of individual target audiences, an eLearning program may include multiple learning modules made up of highly-interdependent product assets, including text, graphics, user interfaces, online help files, audio and video simulations, video subtitles, multilingual voiceovers, software and Web-based applications, corresponding course documentation, testing and assessment modules, and much more.

Avoiding Costly Mistakes When Localizing eLearning Applications

This White Paper provides useful insight into the challenging world of localizing eLearning applications, and may help companies avoid costly mistakes that result in project delays, increased time-to-market, lost revenue, inflated maintenance costs, and diluted messaging and branding.

Key Definitions

There are four key terms that describe the process, from product design to implementation, for international markets:

- **Globalization** is the process of identifying a product or service that fulfills international demand. It represents the design process that goes into the creation of content, Web sites, software applications, and product packaging so that the original product is suitable for use in more than one country.

- **Internationalization** follows globalization in the process of bringing a product to international markets. During internationalization, the product is engineered so that it supports multiple languages (such as software engineering to handle multiple character encoding requirements or documents that allow for the expansion of text when translated into foreign languages). Internationalization typically occurs during product design, content development, and layout stages of a project. Ultimately, the internationalization process makes the product suitable for localization.
- **Localization** follows internationalization, resulting in the adaptation of the product so that it has the look and feel of having been created for the target international market (from the language presented to the choice of graphics, icons, and printed paper size – anything that affects the product's acceptability for the target market).
- **Translation** is a part of the localization process, resulting in the conversion of the written or spoken word from the source language to the target language.

Internationalize Before Localize

Let's take a closer look at internationalization:

Internationalization takes place before localization. During internationalization, the eLearning application is designed (or redesigned) so that it can be easily localized. This stage may include choosing an internationalized learning management system (LMS), modifying forms and databases, standardizing date, measurement and currency formats, and other fundamentals. It may require creating content design templates that account for the expansion and contraction of content when it is translated into foreign languages. Support of foreign character sets and keyboards is implemented and graphic libraries, icons and color palettes are reviewed to make them as language-agnostic as possible. Source text is reviewed to ensure it is concise, clear, free of culture-specific examples and references, and that it does not contain jargon or slang. Finally, all translatable components are externalized to make them easy to identify and translate.

This internationalization stage should not be rushed, as correcting mistakes that are propagated into multiple languages is more costly than fixing them before the localization process begins.

General Considerations

Centralize coordination and budget

More and more companies are moving from a decentralized, in-country globalization management model to a centralized one. Coordinating the internationalization and localization efforts from a central resource provides consistency in localized products, saves money through the economies of scale, and ensures that the content is not inappropriately modified by rogue divisions. However, it is important to retain the buy-in of the in-country offices by including them in discussions on the globalization steps, and providing time for them to review localized content before it is released for use.

In this centralized globalization management model, companies often do not, however, have a centralized globalization budget. They tend to share budgets among divisions and geographic offices. While challenging to coordinate, also centralizing the budget makes the most sense. A multilingual project benefits many divisions and locations within a company; therefore, departments/divisions should share in the investment and maintenance.

Choose your target locales

Marketing and sales typically drive the decision-making process to take eLearning products to the global market. As a result, they are often the drivers for globalization spending. The

international locales that are selected are ones where there is the best opportunity for increasing sales and market share for the eLearning products. Ideally, Web and eLearning globalization planning takes place alongside product planning for the US market, so that all localized deliverables are budgeted for (such as courseware, documentation, marketing collateral, and Web sites). This provides an effective path for the successful company to launch global products simultaneously.

Simplify and globalize your content

It is very important to consider your target markets because ignoring the cultural factors inevitably leads to frustrating and ultimately ineffective learning experiences. If cultural issues are not addressed, research shows drop-out rates as high as 80%. MASIE Center research shows that 62% of users preferred other methods of training, such as classroom training, when cultural issues are not addressed. A recent "Campaign for Learning" report said that 12% of eLearning content was "terrible" strictly because cultural factors were not taken into account for the regional audience.

A developer working in one cultural context must be aware of the various changes in context that arise with audiences in various international locales, avoiding the terms, examples, or phrases that lack meaning in other locales. This extends, as well, to the recognition of the impact of geographic differences for the same "culture"—products for the Spanish speaking market in Spain have a different linguistic style and vocabulary from the products for the Spanish speaking market in Mexico.

To prepare your product, target the content at specific reading/education/professional development level for your courseware in English so that it is suitable for the US as well as the various target markets beyond the US. Establish standard linguistic style guidelines and terminology, using clear, concrete language. Keep sentences short and avoid excessive use of commas. Use the active voice in the present tense. Avoid the use of analogies and metaphors. Avoid cultural references, such as humor, gender-specific roles, and ethnic, geographical, or historical references that could either lose meaning or be inappropriate in another locale and culture. Do not include references to alcohol, sex, religion, politics, the human body, or animals.

If your eLearning products comply with Section 508 (which requires Federal agencies to make their electronic and information technology accessible to people with disabilities) on the US Web site, the localized training should likewise comply with the same standards.

On-going planning

As discussed above, it is better to include localization planning early in the development lifecycle since treating it as an afterthought increases the timeline and often the cost of localization. By integrating the localization processes into the development cycle, not only is localization-specific rework minimized, but the critical path constraint imposed is removed if content is developed on a chunk-by-chunk basis. This approach can apply within a course but also across a dependent curriculum of courses. It also has the advantage of making in-country review resource planning easier to manage as it is distributed evenly across the lifecycle.

Change management is a key part of managing an integrated object-based, multilingual product development cycle. The development cycle must strictly adhere to freezing content at review and prior to submitting content for localization. Any change to content already in localization must be approved and tracked.

Technical Considerations

Platforms and hosting

Ideally, a Web site or an eLearning application should use a global design, which allows for a consistent global navigation experience and brand recognition. A well-designed global template also allows plenty of room for customization for each locale.

There are several things to consider for developing a global design for eLearning products. First, content should be stored centrally using a Web site platform, server, and software palette that support multilingual site hosting, including proper character set support. Evaluate the site architecture to determine what should be changed to facilitate the localization process. Then identify which parts of the site can be translated and which parts must be rewritten specifically for a target country. Create the multilingual Web site structure or content database with language folders and a navigation system that guides non-English speaking users through the Web site in their native language. Create a clear language selection menu on the home page using the translated names of each language (do not use flags). Finally, make sure to develop a site update and maintenance plan using a version control system or Content Management System (CMS) .

A Content Management System is very helpful for version control and updates. A Learning Content Management System (LCMS) is even more beneficial for re-use of learning objects across lessons, courses, and curricula. Evaluate LCMS vendors for proper international support and available localized versions for the markets you plan to serve before choosing an LCMS partner. The LCMS partner must address and support international character sets, culturally correct presentation of time and date fields, personal data, and specific business practices related to human capital management requirements in each market. On occasion, we see issues with LCMS's that offer authoring tools and templates. While they are a big help to Instructional Designers and Technical Writers for inputting content using templates, it is critical to have an export/import capability as well in a format that supports translation. When using generic templates, be sure to remove content from old projects. Failure to do so can result in higher localization costs because of inflated word counts (and, worse, translating words that are not needed).

In the eLearning domain, the speed of the user's Internet connection plays a significant role in the perceived quality of the user experience. The global eLearning sites should be designed with the average connection speed of site users in mind. Creating "lightweight" eLearning is critically important to ensuring global usability. Excessive use of graphics, scripting, or multimedia applications can lead to "overweight" training. The best instructionally designed content in the world can be offered, but if the average response time between screens and pages is painfully slow, the user may lose interest, resulting in a poor user experience and course ratings.

Organize and simplify file structures for localization

A well globalized eLearning course or curriculum allows a localization vendor to focus on translating the content, as opposed to processing a wide range of complex file formats and types. A few additional helpful tips are:

- Keep track of all resource files and include graphics source files to be localized.
- Keep text in external text files whenever possible. They could be either plain text or XML files. Embedded text is more expensive to localize because of the steps needed to redesign elements with embedded text.
- Avoid using too many separate, small resource files. Try to keep all translatable text centralized in a few files.

- Use comments with code to provide context for translators, but exclude all other non-translatable text strings from the resource files.

Simplify formatting and layout

Simplifying your formatting and layout can significantly reduce your localization cost. Applying styles and templates consistently allows for rapid updating of layout changes across locales. Again the idea is that fixing an issue before it is propagated into several languages is always cheaper. Here are a few things to consider:

- Allow for local formatting conventions, such as address formats, date/time formats, currencies, telephone and fax numbers, etc.
- Define and use a consistent and limited set of tags.
- It is best to use defined styles instead of colors for highlighting content. By doing so, changing the choice of point size, color, or emphasis for a target market is much easier (saving both time and money in the localization process).
- Avoid using specific fonts as a design feature, as certain fonts may not support accented or double-byte characters. If you must use customized fonts, keep them as part of the development source and be sure that the customized fonts support non-western languages. In general, look for Unicode fonts.
- Size of fonts and graphics can be an issue for the target languages. If the point size of fonts is small (as is found in some graphics), it may not be legible when translated into another language. Note that vertical size and spacing between characters and lines also affect readability.
- Whenever possible, use auto resizing to account for text expansion and contraction during localization. If static sizing is used, there are significant length restrictions in the user interface, forcing translators to abbreviate items or choose synonyms which may affect the quality of the localized product or confuse the end user.
- Allow tables to resize dynamically, and allow for sufficient text expansion in table cells.

Graphics considerations

Graphics tend to be fairly costly to localize as they require more manual tweaking than most other file formats. Minimize the use of graphics, whenever possible. If it is necessary to put text on embedded images, develop layered, text-accessible graphics source files (e.g., .psd files) where all text is contained in a specific text layer of the source file. Try to keep embedded images generic (usable in all locales). This reduces work on these embedded images. Do not convert any text elements to vectors, otherwise they need to be treated as graphics.

Consider simplifying your animations. As an example, rather than phasing in one character at a time to display your tagline, consider phasing in one word at a time. This may work much better in the target language, and may save considerable time and money.

As usual, keep in mind the space used for text on images or buttons. In some languages, like German, text expansion occurs (requiring as much as 50% more space in the translated language). Conversely, some languages, like Japanese, result in text contraction yet may require additional height.

Graphic elements can be challenging for multiple target markets. For example, icons may be clearly understood in one culture but not another one (or have a different meaning). A cultural analysis of a library of icons is often very useful. Even pictures of people on your English site typically need to be switched in the graphic libraries for target markets so that the people represented better match the cultural needs with appropriate age, gender, and race images available.

Flash and other media considerations

As with graphics, there are several points to remember when developing Flash content. Simplify your layouts and formatting as much as possible. Allow for text expansion by leaving enough room in text boxes, or enable scrollbars when dealing with larger chunks of text. Avoid using text strings within coding or Action Scripts of the Flash file. Instead, externalize text strings into dynamically loaded .xml files (but remember to ensure that the corresponding text fields allow for proper text expansion and target character set support).

When finished developing the final Flash file, remember to clean the library and to remove items that are redundant with the final .swf file. This helps to reduce the size of the .fla file. Use folder management in the Flash libraries.

Adding voiceover to your presentation is a helpful learning aid; however, this is also where your highest cost for localization can occur. You may want to consider adding more written text or subtitles to avoid incurring voiceover costs for each target market. Of course, if audio plays a vital role in your particular products, there are several ways you can still reduce your overall cost. For instance, use animations rather than video where possible, as voiceovers do not have to sync with moving mouths. When choosing your voice talent, use a mix of gender, race, and seniority that is appropriate for the target culture, but try to also minimize the number of actors and the complexity of dialogue. Remember to keep the original audio format and information on settings used during audio recording as part of the original source, including the transcriptions of the dialogue. As with text, recorded voice-overs can expand as much as 50% over the English voicing. This can impact dubbing and lip-syncing times when recording a translated script for use with an English video, and might require sound compression and other adjustments.

Conclusion

The global eLearning market is growing, leading more organizations to face the challenge of localizing their applications into multiple languages.

Companies need to plan their multilingual application release carefully, have a clear vision and strategy, properly internationalize their eLearning application, and follow guidelines in order to localize their products effectively—optimizing the time-to-market, while meeting acceptable quality and budget guideline requirements.

The guidelines provided in this White Paper will assist you in achieving these goals.

References / Additional Information

For additional information on this topic, visit the Localization and Internationalization Web page from the World Wide Web Consortium at www.w3c.org/international.

ENLASO's eLearning Solutions

ENLASO is a recognized leader in the localization of eLearning applications. Registered with ISO 9001:2008 for over 12 years, we offered a full line of eLearning localization and internationalization services, while translating from and into over 100 languages.

By addressing the long-term language needs of our customers, we are able to deliver congruent and culturally acceptable localization solutions that maintain the fundamental learning objectives of the original English modules. Contact us today to discuss your specific eLearning localization and internationalization requirements.

For more information or to request a quote for a multilingual voice-over project, please contact us by phone at 303-516-0857 or by e-mail at marketing@enlaso.com.