

Globalization-at-Source Courseware Development

**Capturing cost and time efficiencies for multilingual
learning and training**

A Lionbridge Business Brief



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Executive Summary

While board rooms and executives are broadly supportive of global training programs, budgets are limited. The cost of multilingual initiatives alone can be daunting, but the logistics of deploying multilingual content also raise unique challenges.

Traditionally, courseware development must be complete before translation can begin, creating a significant gap between the release of an English-language course and its localized versions. **Globalization-at-SourceSM is an innovative methodology from Lionbridge that integrates courseware development and translation processes to reduce both the time and cost of multilingual content creation.**

By managing design, development, and translation activities within a single team and process, an effective feedback loop is established that makes localization faster, easier, and less expensive. A unified approach to development and translation processes means that the release of source and translated versions can be fully synchronized.

Globalization-at-Source incorporates the following elements:

DEFINITION:
Localization is the process of adapting content or products to be linguistically and culturally appropriate to a specific locale.

- Integrated courseware development and translation processes for streamlined management and scheduling.
- One global project manager and core team overseeing both courseware development and localization.
- Internationalized content that is "localization-ready" in structure and design.
- Instructional design, technical writing, and multimedia development that is optimized for translation and translation tools.

This paper discusses how Globalization-at-Source works and the measurable benefits it delivers for courseware development. The paper concludes with three case studies demonstrating how Lionbridge clients have used Globalization-at-Source to reduce costs by up to 40%, shorten release schedules by up to 50%, and improve their multilingual courseware quality.

Note: For more information on why local language training may be important for your organization, please see "Cultural Adaptation: Necessity for Global eLearning" by Dunn and Marinetti (<http://www.linezine.com/7.2/articles/pdamca.htm>).

Multilingual Courseware Development

Companies report 100 percent improvement in post-test scores when employees are taught in their own language (DePalma 2002), making localization a key strategy for global workforce management. However, the many challenges of localization keep many organizations from taking full advantage of the strategy. These challenges include high costs, timing issues, process constraints, and content deficiencies.

High costs

Professional translators produce work at a rate of 250 words per hour for European languages, and less for Asian languages. The cost of generalist translators is high, and the cost of subject matter experts is higher still. And yet, translation accounts for only 60 percent of the cost of localization (DePalma/Jocelyn 2005). The remaining costs include engineering, publishing, QA and project management.

Timing issues

Beyond cost, the effort and time involved in localization has meant that companies face two options for training their global customers and employees. And neither option meets the needs of a multilingual workforce:

1. Address everyone at the same time, but in English only.
2. Address the English speaking audience first, and then follow up with training in other languages – often months later.

Option one alienates constituencies whose command of English is less than 100%. Option two unnecessarily delays the training cycle. Neither option meets the needs of users by offering timely training in languages other than English.

Process constraints

For multilingual training initiatives, developers typically create, edit, and finalize complete English courses before passing them along to separate teams to be translated. This method, *serial globalization*, saddles the localization process with unnecessary delays (see *Figure 1*).

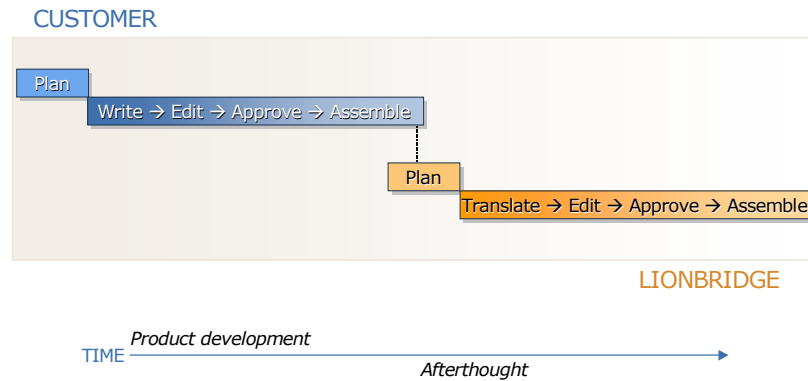


Figure 1. In this serial globalization scenario, each stage is completed before the next one can begin. Translation of English content into other languages is separate from the development process, requiring extra time and project management resources.

Serial globalization also inadvertently adds costs:

- **Explicit costs** imposed by the method include additional project management, contract administration, and rework charges.
- **Hidden costs** include high translation and localization costs due to content development that is not optimized for these follow-on processes.

Lack of coordination between authors and translators often results in crisis management late in the process, increasing the project management burden for training departments. Additional project management time is needed to keep projects on track when translators hit roadblocks due to unsuitable content.

Content deficiencies

When writers develop courseware for an English-speaking audience, using content development tools that do not support a multilingual process, important opportunities are lost. Lacking the knowledge and tools required, most writers and editors deliver content that is not optimized for globalization. Poorly prepared content is presented to translators who must either return the material for rework, or work around the deficiencies. Localization engineers spend valuable time processing files unnecessarily. Costs increase, schedules are broken, and quality is compromised.

Unsuitable content includes:

- culture-specific references or images
- File formats or layouts that do not support localized content

- ambiguous wording that cannot be translated without reformulation
- reliance on lengthy descriptions that are expensive to translate
- inconsistent use of terminology and writing styles

Since text volume drives translation cost, keeping word counts down will directly reduce the cost of localization.

Courseware that is ambiguous, inconsistently punctuated, or difficult to understand has a lower success rate with any audience. For multilingual content, these issues are amplified by language translation, and multiplied by the number of languages involved.

The cost of integrating translated content into the original course templates and environment is generally higher when the courseware was not developed with localization in mind.

The challenges of multilingual courseware development have limited the ability of companies to offer global training initiatives that are timely, cost-effective, and high quality. Greater efficiency in the globalization process is required to ensure success.

An Integrated, Dynamic Production Methodology

The alternative to a serial, disconnected authoring and translation process is an integrated approach, where authors and translators interact throughout the content development process, within the context of a single team structure.

Lionbridge has created Globalization-at-SourceSM to cut costs, reduce turnaround times, and improve courseware quality.

Lionbridge Globalization-at-Source combines instructional design, technical writing, multimedia development, and content integration services with best practices in localization to create a single, streamlined process, reducing both cost and cycle times by 30% to 50% (see *Figure 2*).

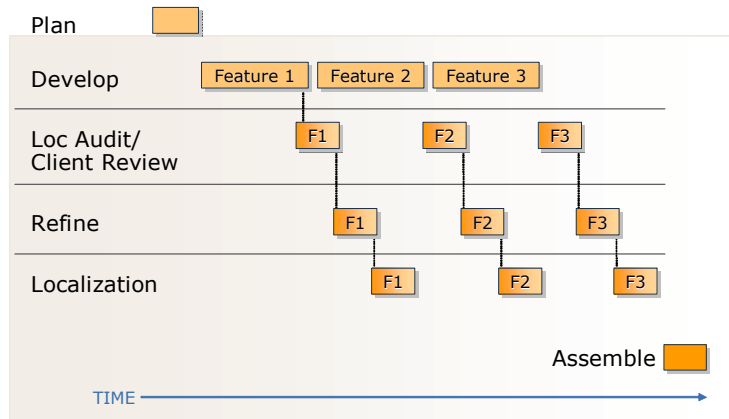


Figure 2. As features, topics, or modules are developed, they are sent to localization. Localization takes place as source materials are still being created. One global project manager oversees both processes.

Reduced project management costs

When courseware development and localization are tightly integrated, one global project manager can manage both processes. With Globalization-at-Source, instead of paying a fee for two project managers who manage two different and independent services, there is one global project management effort for two integrated services. The need for clients to coordinate between two vendors disappears. This single project manager model yields between 10 and 30% savings on vendor project management costs (see Figure 3).

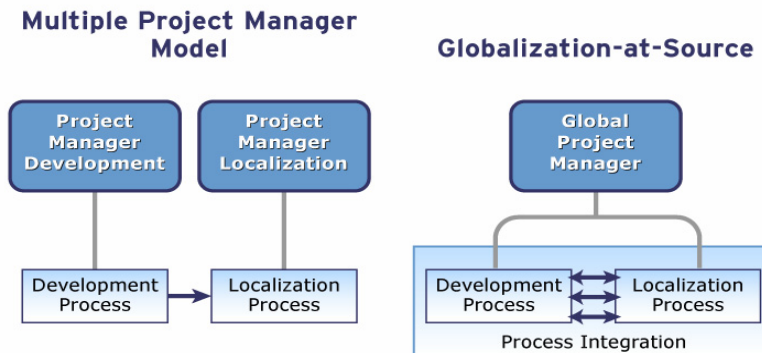


Figure 3. Courseware development and localization activities are integrated under one project manager. Typical deployments report a 30 percent savings on project management.

Reduced translation and rework costs

Content authors and developers who are adequately trained to write with localization in mind produce myriad benefits related to the usability and translatability of their courseware. These include:

DEFINITION:

Translation memory is a database created and maintained to collect source text and its corresponding translation.

Translation memory allows translators to reuse previously translated text as they translate new material.

- Fewer questions from translators because of a clear, unambiguous source.
- Less rework of courseware during localization because source content is culturally neutral and appropriate for all audiences.
- Fewer questions from localization engineers because of a global-ready source.
- Less time and effort for translation of text, graphics, and media elements when localization tool optimization is built-in from the start.
- Lower translation costs because of lower text volumes and increased text reuse (internal leverage from using consistent terminology).
- Increased leverage from translation memory because of consistent source materials.

Globalization-at-Source can produce a 10% or higher savings on translation costs, even above and beyond that already achieved by translation memory tools, due to improved reuse.

Reduced engineering costs

By applying principles of software internationalization during courseware development, Lionbridge improves process efficiency in multiple downstream processes. For starters, when developers ensure international character set support, anticipate text expansion in the design, and separate translatable assets from the code, localization is faster, less expensive, and higher-quality. But there are advanced methods as well.

For instance, an automated publishing system can be created using style sheets and templates to reduce or eliminate the need to the reviewing and correcting of page layouts for individual target languages. This level of internationalization generates significant savings over time. Lionbridge estimates that multilingual engineering and integration best practices can save between 30% and 40% for companies producing content in three or more languages.

Faster time to deployment

In serial globalization, translation does not begin until authors have written and finalized all of their source material. As a result, multilingual courseware delivery is a staggered process, often with significant training gaps for audiences in different regions.

Because of the tight integration between development and localization services, Globalization-at-Source allows enterprise departments to reduce the time required to roll out global training initiatives. The methodology compresses time to completion of multilingual projects, reducing time to deployment by 30 to 50%.

Quality improvements

Globalization-at-Source enhances the quality of final materials by ensuring that all content is global-ready in substance, structure, and design. With one core team working together, including a program manager, instructional designer, technical architect, graphic designers, subject matter experts, and translators, the methodology eliminates confusion, inconsistencies, and other quality control issues that result from having too many vendors and too many process steps.

Efficiency

With shorter time frames, increased efficiency, and reduced number of handoffs between client and vendor organizations, companies have an easier time managing launch schedules. In addition, enhanced communication and collaboration between content development and translation activities improves the awareness of all participants on issues that present roadblocks for localization. The integrated team develops organizational knowledge around how to most efficiently produce the desired deliverables for all target audiences.

A strong feedback loop between translators and writers facilitates quick resolution of queries and helps to ensure localization-ready files. When development understands the style and format needs of local languages, modifications can be made up front, rather than at the end of the process, avoiding expensive rework. Localization is faster and less expensive as a result.

Client-side stakeholders and subject matter experts also see important benefits, as process efficiencies serve to minimize their effort and involvement in knowledge transfer and project coordination.

Single point of contact

Companies that outsource courseware development and translation usually work with two or more suppliers or locations. This type of relationship results in extensive vendor management, numerous file transactions between vendors and teams, knowledge transfer, detailed writing instructions, and duplicate contract administration activities.

Globalization-at-Source streamlines the process by providing one global project manager who is the single point of contact throughout the length of the project. The global project manager has all of the project status information for all of the languages involved.

Globalized source content

When instructional designers and content development teams are trained to create courseware that can be used uniformly in international markets — without locale-specific modifications — the training development process changes. As a result, usability of the courseware increases. Content is easier to translate. Clean, clear communication is easier to understand for native and non-native English speakers.

Source materials that are clear also help companies maintain consistency in brand, messaging, and design across all of their courses. When training content is written with localization in mind, companies can lower costs and ensure that audiences around the world are given the same high-quality learning experience.

Globalization-at-Source Benefits at Work

Lionbridge globalization services enable worldwide enterprises to deliver products, software, and training content to international markets. Our courseware development methodologies — powered by experienced instruction designers, developers, and translators — help to:

- Deliver more hours of multilingual courseware, for less
- Shorten training cycles, accelerating business initiatives such as process improvement, quality, and compliance
- Enhance learning experiences

Here are some examples of how our clients are benefiting from Globalization-at-Source.

Software, Services, and Solutions Manufacturer

A major software, services, and solutions manufacturer worked with Lionbridge to redesign its eLearning templates to prepare them for global distribution. Lionbridge globalized source content, using Macromedia Flash to automate repetitive tasks that had previously been part of the template creation process. Lionbridge also moved all translatable text into XML files to populate the Flash simulations.

This helped to accommodate and harmonize text sizing and layout issues across all languages. This manufacturer was able to save more than 40% of total project costs because the localization engineering and integration costs were reduced to near-zero as a result of Globalization-at-Source.

Corporate Learning Solutions Provider

The learning solutions division of this media and publishing powerhouse outsourced its multilingual courseware development, coordinating all activities through one central Lionbridge program manager and team. The results have included:

- Reduced costs for courseware development and translation
- Simultaneous shipment of all new eLearning programs
- Over 35% savings in total project turnaround time
- Project management cost reductions of 30%

Consumer Electronics Manufacturer

For this global hardware manufacturer, Lionbridge used Globalization-at-Source to facilitate the creation of single source documentation and online help files (FrameMaker and HTML) for translation into 20 languages.

Using custom content development tools, automated workflows, staggered content handoffs, cross-team interaction, and stringent preplanning of budgets, definitions, and schedules, the manufacturer reduced its overall project costs by 25% and reduced its production schedule by 34%.

Conclusions

Lionbridge Globalization-at-Source is a custom courseware development methodology based on years of experience working with leading companies in manufacturing, education, media, and IT. The methodology combines instructional design, technical writing, and multimedia development steps with internationalization, localization, and translation. Globalization-at-Source has been used in the development of instructor-led and Web-based training, as well as technical documentation and user assistance information development.

Globalization-at-Source helps enterprise clients attain strategic imperatives, meet business objectives, and improve corporate performance.

By integrating content development and localization processes, managing the multilingual development cycle with a unified team, and training our designers and writers to optimize for localization, Lionbridge has helped client companies do more with less, respond quickly to changes in their global workforces, and improve the learning experience for employees and customers worldwide.

Additional resources

To learn more about Lionbridge custom courseware development and related services, please visit Lionbridge at: www.lionbridge.com.

To speak with a Lionbridge specialist, call +1-781-434-6111 or email info@lionbridge.com.