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## How to Build a Web Site Without Borders



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**In creating a site adapted to worldwide customers, there are two major defined steps: Internationalization and Localization. For a site to be localized, giving it the "look and feel" of having been developed in the target market, it must first be internationalized.**

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The world is yours, or at least that's the promise e-commerce ☞ offers. Get your products, services or information online, and you can gain customers anywhere. It can be challenging, though, to build an active worldwide customer ☞ base that buys and comes back for more.

It's a competitive world, and studies have shown over and over that people prefer to buy in the ways they are accustomed to, especially with information in their native language.

The first obvious customization is to provide translation of your e-commerce site, but this doesn't happen with the wave of a magic wand. There are steps that must be followed, from business planning to technical adaptation to facilitating the localization process and streamlining updates. This article provides an overview of these considerations, and suggests logical steps to help you move forward.

### Business Case

While this article primarily addresses issues regarding site creation and adaptation, it's important to discuss the business drivers as well, as they strongly impact cost and time considerations.

Whether you work at a large or small company, your business case leads your budget ☞ and resource allocation in creating sites for global audiences. In most cases, this globalization strategy ☞ involves high-level management visibility and strategic commitment. There are revenue expectations and distribution issues to sort out, possibly local in-country representation to support, and a host of other logistics.

All that adds up to plenty of expectations for a return on investment. Getting a good plan in place -- including a strong understanding of the scope of implementation efforts, a technical and process road map, and some kind of measurement metrics -- helps you get the right funding and resources to be successful.

The costs of poorly globalizing your e-commerce site certainly include building expensive systems that don't have the needed functionality for an international customer base. Even worse are the delays in deployment that have rather painful and visible effects on your company's revenue stream, global aspiration objectives and, ultimately, the bottom line.

### Internationalization: One Site, Many Adaptations

To the outside observer, internationalization (i18n) remains a hidden and often unknown attribute, but it is critical to leveraging your success from market to market.

When you internationalize your site, you adapt its technology to be capable not only of supporting any language, but also of supporting local formats and ways of doing business. Translators and regional stakeholders can alter content and more, but the site itself -- what presents and processes information -- remains consistent and leveraged for each market.

We often counsel our clients to think in terms of locales, and not languages. That's because you can't assign local purchasing behaviors to a language. It's more the other way around; a locale includes the language of the region as well as numerous other issues, such as character set support, date/time formatting, forms of payment, data/product sorting, phone/address formatting and more.

If you are using another company's e-commerce platform technology for your site, then you must find out exactly how it supports internationalization. If you are building a new site, be aware that some technologies adapt to internationalization and localization demands better than others. The technologies you choose should tread the balance of your current organization requirements and your business objectives.

If you are adapting your current site to support internationalization, consider these areas in your migration:

- Architecture -- The structure of your e-commerce system, including the software itself, the externally visible properties of the user interface, and the relationships between them. Consider your new requirements for international markets, finding the balance of what is not in your e-commerce site that needs to be added. Likewise, examine what is in your site's code that needs to be changed to support the markets.
- Code refactoring -- Unless you are developing a new e-commerce site with support for international markets planned from the beginning, it is likely that the internal structure of your e-commerce site will require modification to improve or change the code to better support international

functionality. Typical code refactoring on internationalization projects includes the following:

- Extract embedded strings from the code so that they can be easily accessed for translation;
- Change locale-limiting functions, methods and classes;
- Mark relevant business logic object-based, so it can be affected by locale requirements;
- Enable character set support (Unicode) so that extended characters display properly;
- Ensure that character encoding changes to pages, database and individual coding elements are implemented; and
- Abstract transaction workflow on the site that may need to be dynamically customized to support locale requirements.

### Content Management Systems

Another thing to take into account during the internationalization phase is the type of tools you are using for developing your content. For Web sites, there are plenty of good content management systems (CMS) that are available; however, there are differences among them that affect the support for international markets.

If you use one, you want make sure it is localization-friendly. It must have a way to export the translatable content in some kind of file format that translation tools can use. XLIFF (XML Localization Interchange File Format) or other variations of XML-based formats are good choices. The tool must also be able to merge back the translated exported data into the right places in the localized content.

Generating "delta" files -- which contain only the content "chunks" that need to go through the localization process for translation -- is a very efficient way to reduce the costs for localizing updates as your site is modified. It is often helpful to the linguists, though, to provide reference materials or to include the already-translated content around the new translatable chunks, so the translation can be done within a meaningful context.

Some content management systems also allow you to control the granularity of the chunks you create, and to re-use them across the whole published Web site. This allows for even more cost savings in localization.

### Content Creation

Whether you are using a content management system or not, how you write the content and design your icons and graphics affects the ultimate localizability of the site. Taking into consideration the way the content is developed saves money during the localization process and results in better international sites.

Ultimately, it is much cheaper to create content correctly in the source language before translating the content into many languages for the target markets and having to address content issues for each market:

- Write in simplified English. In creating the source content, write in the active voice, avoiding complex sentence structures. Avoid the use of slang, colloquial expressions, and cultural references. This is even more important if you anticipate having some users from markets that are not covered by your globalization plan. They may end up using machine translation engines to get a gist of the content of your Web site.
- Reuse text. If you say the same thing at different places, then say it the same way, so the translation of the first occurrence can be used for the second one. This leveraging of text can significantly reduce the linguistic fees through the reuse of previously translated content. By all means, avoid minor wording changes as that just means more costs. Content management systems can help you to parse your content into "chunks" that are easily translated while facilitating the reuse of content throughout the site.
- Icons. Make sure all icons are understandable by your target markets. It is cheaper to have icons that "work everywhere" than to customize icons for each market. Identifying culturally acceptable icons can require a bit of up-front cost in assessing them for your target markets, but it avoids confusing (or worse, offending) your customers. Alternatively, you can design your Web site to easily substitute icons according to the market (e.g. by using style-sheets instead of hard-coding style changes in your pages).
- Graphics. While it is tempting to have complex graphics with layered text, remember that all text has to be translated. Translating text that is embedded into graphics is more expensive. If you have to use call outs on your graphics, then use numbers or letters that are then referenced in the text of the page rather than on the graphic itself. Whatever you do, make sure that you keep the graphic source files for your localization team (not just the collapsed JPG or GIF files).
- Search Engine Optimization (SEO). In creating the source e-commerce site, great care must be taken to optimize search terms so that the site appears readily in search engine matches. Extend your efforts to include [SEO](#) for each of your target markets, using appropriate search terms in the metadata as well as the content itself.

### Ensuring Internationalization Success

A good internationalization effort should be validated with a careful review of the source site:

- Consider using pseudo-translation (where the content is passed through a small program to convert the text into extended characters so that display can be verified) of the content to verify that all modifiable elements of the site are indeed accessible and can be changed for the various translated versions.
- Verify that locale-sensitive data can be processed accordingly (date/time/numbers format, currency issues, measurement units, etc.) and that when needed, locale-specific content can be provided as well (end-user license agreements, privacy and confidentiality statements, 800-type numbers, part numbers, etc.)

To recap, the success of your site on the international scene comes from a combination of

- good development practices,
- well-adapted tools used during the development and the maintenance of the site, and

- content that is ready for localization, taking into account cultural differences as appropriate.

You can learn more by collaborating with industry colleagues (from your industry and the language services industry) through an impartial trade association, such as the [Globalization and Localization Association](#) (GALA).

Following these high-level guidelines will better prepare you for the localization and translation of your e-commerce site for each of your target markets.

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[Speaking the Right Language Online](#)

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The Internet makes it easy to reach a global audience -- but you can't rely on crude translation tools if you want to make sure you're sending the right message. "Cultural mistakes ... can damage your reputation," notes Cesar Vasconcelos, a QA localization engineer at [EcommerceCMS-Solution.com](#).

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