What is Web globalization?

Web globalization means that an enterprise addresses an international audience through its Web presence but does so in local terms. Web globalization therefore comprises two key components: ‘internationalization’ and ‘localization’. In this context, ‘local’ usually means at a country level.

Web globalization is one of many challenges faced by any organization that extends its operations beyond its home territory, either by organic growth or acquisition. Such companies must make numerous adaptations of their original business model to local laws, language, distribution models, pricing, employment practices, taxation regimes, customs and culture to name just a few of many considerations. In the case of entry to new markets through acquisition, much of the local market adaptation is automatically achieved. However, the challenge then arises of adapting the newly acquired company to the culture of its parent.

Between enterprises there are many differences in approach at the detail level to operating successfully in the international marketplace: some, for instance, favor high levels of operational autonomy for regional offices, others take a very centralized approach; some allow regional flavors to influence brand architecture, others insist on a single brand proposition worldwide. Whatever the differences at the detail level, most global enterprises have some form of local market adaptation within the context of an enterprise-wide management structure that ensures all local operations contribute effectively to achieving the business objectives.

Reflecting this, the challenge of Web globalization is to deliver efficiency, quality and direction by taking a global approach to Web management while providing local operations with a powerful and flexible business tool that can contribute to their local success.

So what are the nuts and bolts of Web globalization? Globalizing your website is often misinterpreted as translating it into another language; however, translation is just one of the many important steps in creating your company’s global Web presence. Table 1 below illustrates the main activities related to the process of globalization.

The following sections describe some of these activities in more detail.

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Table 1 - Globalization Activity Scope
Why globalize?
Website globalization is essential to effective marketing and maintaining global brand consistency and integrity. Having a centrally-designed and operated site will reduce design and support costs, while eliminating incompatibility, support, and communications issues. Globalization enables standardization of international processes including website content updates and product list updates in more than one language, a necessity for companies in which such updates are a daily occurrence. Uniform content structures and repositories, simple global workflows, central content management and the involvement of local affiliates will lower running costs and possibly maximize revenues.

Each local website should inherit the global site structure, branding and styles, with enough room for a local interpretation of the country specific marketing needs and customization, embedding corporate standards with local cultural differences. For example, a Chinese agency could provide support in creating appropriate local content using templates and rules set by a central managed content management system. This way the agency has the flexibility to embed a Chinese flavor into a consistently branded site.

A local version of your website will instill the feeling that your company is seriously established in that specific country or region, improving local revenues and increasing local support and awareness. Localized sites are also more likely to be identified and highly ranked by country or region specific search engines.

Timing is an important consideration in globalizing your Web presence. The infrastructure to support a multi-lingual site is fundamental therefore planning globalization earlier rather than later will lower the risk of redundant investment.

How should I globalize my website?
Unfortunately globalization is seldom as straight-forward as it sounds, with no single correct approach. Several considerations will determine what path is best for your company:

- Do you already have existing international websites?
- Do you have corporate brand, identity and communication standards?
- Does your corporate site still need to be internationally standardized?
- Is your website marketing front-end or is it embedded in your back-end infrastructure?
- Do you have support from local affiliates or will the effort be centrally driven and managed?

Your answers to these questions will define a clear roadmap towards effective globalization; however, to appreciate its impact on your company it is important to first understand the concepts of internationalization vs. localization.

Internationalization vs. Localization
Web globalization encompasses both internationalization and localization and the distinction between these is subtle but important. Internationalization is the adaptation of products for potential use virtually everywhere, while localization is the addition of special features for use in a specific locale. In website management, after a site has been internationalized, “localization” refers to the process of making it ready for a specific local market.
Both internationalization and localization are essential for your site to achieve success across multiple countries, languages and even cultures i.e. become globalized. The issues, steps and activities within globalization can be roughly separated in the entities shown in Table 2 (below) and are described in more detail below the table.

<table>
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<tr>
<td>Support for global data definition (extendable)</td>
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</tr>
</tbody>
</table>

Table 2 - Internationalization vs. Localization

Globalization activities

Centralize or Decentralize content management

Multiple languages or a fragmented global presence requires careful consideration of where this content is to be managed. Content management can be centralized, decentralized, or a combination of the two. Centralized content management is often preferred, as it provides a clear overview of your content and who is managing it.

We would suggest that a global template design is adopted. This allows for global consistency and allows a smaller team to manage more country sites while allowing content people to use the same tools and processes. The global template design should be versatile enough to handle localization of content and ensuring that there is room for menus and links in all languages (German and Russian text can get extremely lengthy). A global template should also be designed to make it easier to enable global mobile solutions. At the same time, be aware that some local markets may not suit a global template: Korea, Japan and China may become the exceptions simply due to regional visual design differences.

Ideally local affiliates should have access to the content management system to update their part of the website as needed. The risk of this combined approach (‘central system - local editing’) is that local managers are able to manage their own content in a way not be fully aligned with the corporate approach. The advantage of having the content managed by local affiliates is that they should know how best to present the content in the most appropriate way for the local audience. Alternatively, an expert in the language, local cultures and content could be consulted to prepare and update the local website with help from the central team.

Workflow definition

Depending on how the content is going to be managed, one or more workflows must be defined to ensure appropriate cross-language updates when necessary. It is likely that there are also workflows established on a central or local level.
Multi language support

One of the biggest challenges in creating a multi-lingual website is to create an initial foundation for more than one language, or even an unspecified number of yet unknown languages. All applications should support more than one language, including the actual content, web pages, programming code, native documents, e-mail, the content management system and interfaces to other applications. The more you define and prepare up front, the lower the implementation cost will be when you begin globalization. When no preparations have been made for multi-lingual support the ultimate implementation cost could as much as double.

Multi date & time formats

Dates and times are formatted in many different ways around the world, even in applications, and are sometimes extremely complicated. Ideally, flexible date formats should be implemented on the front end (what a website visitor will see), while generic dates should be stored and managed in the back-end.

Some countries also work with a different type of calendar, like the Persian calendar used in Iran and Afghanistan and the Islamic calendar used by Muslims all over the world. However, most time and date information can be calculated in the regular Gregorian calendar.

Time zone support

All countries are located in a fixed time zone based on the Coordinated Universal Time (UTC). Most time zones are exactly one hour apart, and by convention compute local times as an offset from the UTC. There are 24 zones, roughly from New Zealand UTC+12 to Honolulu Hawaii UTC-10. The “dateline” is located just east of New Zealand.

As the Web is active 24/7, website time zone support is an import factor regarding globalization. Good time zone implementation on the front end of a websites is essential to the presentation of an up-to-date site, as well as an accurate date and time. Local content contributions should synchronize in the appropriate time zone rather than that of the Internet server location.

Support for all currencies, weights & measures and paper sizes

There are currency, display format, numeral, and metric system differences throughout the world. When information on the website is presented, it could be necessary to reformat figures into the locally preferred way.

Last but not least is proper support for varying paper sizes. When creating printable content for countries using a different type of standard, it is advised to position the content in such a way that it fits both standards; or create two different printable versions. This is especially important when offering downloadable native documents like Microsoft Word or PDF.
Images should be localizable

A website mainly consists of text and images (including static images, videos and flash animations). Images should be, just like text, localizable. This is not only important for images which could contain text, but also for images which could be inappropriate in certain countries or when specific countries have to change the image to create a better fit with the audience or represent the local community. It also may be necessary to translate corporate brand names and slogans while maintaining corporate branding standards.


Figure 1 - GE Healthcare India

Support for global data definition

Data is stored and presented in various ways. There are two important focus points related to the data definition; one, which is very technical and related to the character set definition, will be described in another section. The second focus point is related to the fields of data you would store in a database, such as within a web form.
Many countries have different methods of storing and validating fields like postal address, Zip code and phone numbers. Validation of a correct phone number can be vary by country and it could be important for marketing purposes that validation is required on one or more of these field types.

In some countries, a middle name field commonly separates the real last name from the middle name, which is important for sorting and checking for doubles in a database. For example “Ludwig von Beethoven” shouldn’t be indexed and sorted on the “v” but on the “b” in the last name field.

Another issue is translation of data, which is to be sorted in an alphabetical order. For example, the Russian alphabet uses a different order (some characters do not exist in Russian Cyrillic and vice versa with West European characters). This is especially important when presenting drop down lists on a website or when using letter-based search engine navigation. The Far East method of sorting is even more complex and should be carefully sorted and mapped towards the logic of related content.

**Localization activities**

**Translation & local interpretation of the content**

The wish to publish an existing website in another language will not be successfully achieved via a “regular” translator. Although the original content may appear to have been converted flawlessly, correct interpretation and context of the specific content may be an issue. Ideally, each translation should be performed by someone with significant experience in the subject matter, good translating skills, preferably in translating for the Web, and who is actively involved in the globalization project.

While it may be challenging to find such a person for each language, usually a combination of people working together can offer a second-best solution. Workflow and good communication is essential, as is a good background brief to the parties involved.

A ‘custom made’ translation for your website, in which existing content has been interpreted and carefully translated, will increase both usability and response.

**Local content restrictions and requirements**

It is very possible that not all content used on your website may be displayed in every country. There can be a government related legal restriction of certain types of content (e.g. pharmaceutical products).

Investigate this issue with local affiliates by researching other sites, possibly of related companies, in the same country.

**Data definition**

Data definition, as specified in the globalization section, should be optimized for each specific country. Data storage fields must be created and/or modified, validation rules established, and character set support implemented and tested in order to ensure that the path a user follows best suits his country-specific expectations. Often there are many overlaps in each country, but there are specific differences. For example, one may select a Zip code or state in the USA, whereas in Russia field addresses are commonly completed manually. Research of existing websites using data processing within a specific country is advised prior to implementation.
Alignment with cultural values, customs and appropriateness

Cultural awareness is often underestimated and overlooked in website development. Because each country maintains a specific culture and customs, it is wise to investigate the effects of these on the Web. While it can be a time-consuming task, creating a culturally aware website will ensure appropriateness according to the local values and customs, and is likely to create a more favorable impression amongst local visitors and possible customers.

Additionally, content or images on your website may need to be (partly) censored to reflect local requirements, as with legal boundaries.

Internet Browser preference & support

In the days when Netscape and Microsoft Internet Explorer were competing on the market, a website needed to be optimized for all browsers to be shown correctly. Although some browser issues remain, browser quality and compatibility has improved, but the bigger issues now are about formatting your site to support the growing range of mobile platforms. A globalization development team should be aware of the prevalent browser and mobile usage within each country being considered. A ‘perfectly’ developed website with support for all users and platforms is ideal.

Local search engine adaptation

As Google has an enormous market share around the world, especially in the western markets, it seems easy to forget that your website optimization should not focus on Google alone. For example, in China www.baidu.com has a much bigger market share than Google.cn and in Russia the search engine www.yandex.ru is slightly more popular than Google.ru

Local affiliates should investigate local Internet behavior and perform market research, possibly purchasing a keyword list of common local search terms.

Location and Language choice automation

Modern websites can use the user’s IP address to identify their physical location, and also looks at the web browser settings to see the preferred user language. These two tools can be used in conjunction with your global gateway to suggest the local version of your website and/or the language. This should help users discover your new localized website.

Local competitor analysis

Most globalization issues have already been addressed by other companies with successfully implemented websites in various countries and languages. Researching their processes through the examples below will provide tips and best practices.

Example sites using a high standard of localization:

- Microsoft: www.microsoft.com/
- Google: www.google.com
- Siemens: www.siemens.com
- Wikipedia: www.wikipedia.org
- HP: www.hp.com
- Eaton: http://powerquality.eaton.com
- IBM: www.ibm.com
Local privacy regulations

Web user privacy has become contentious in recent years. Tracking and data collection may be subject to local regulation. Because falling foul of local regulations can bring significant reputational damage and the risk of prosecution, compliance based on sound legal advice is highly advisable. The EU in particular has stringent requirements for user tracking by way of cookies and data retention. This situation has been made more complex by the varying interpretation of these requirements by individual countries within the EU.

![Cookies on www.danfoss.com](image)

*Figure 3 - Danfoss cookie notice*

Other applications

Although this white paper focuses on globalization and the challenges are involved, it is important to realize that globalizing your website will affect (and be affected by) other business applications. Applications directly or indirectly related to globalization activities can be:

- Online shopping
- Location based directories e.g. support contacts, reseller locators
- Online support e.g. Chat
- Databases (direct and indirect)
- Web content management systems
- Product selection and configuration tools
- Product information management systems
- Email marketing systems
- Customer relationship management (CRM) systems
- Enterprise resource planning (ERP) systems
- Office Applications
- Enterprise content management systems

Try to incorporate (existing) applications that could have an effect on how to implement your globalized website.
Recommendations

Globalization is a difficult task with many risks and chances on the path to an effective implementation. This section offers a set of useful recommendations for the mission ahead.

• If you are thinking about going international with your website, now is the time to act. You might begin with something as simple as awareness of the possible challenges ahead.

• Don’t re-invent the wheel. Work with external vendors who have experience in globalization.

• The local affiliates should part of the team setting the global standards. By involving the local teams in the design process, problematic issues at a later stage can be avoided, and may help ensure the sites remain up-to-date regarding global, regional and local issues. Management of the local affiliates should be centrally preformed, which is especially important for non-compliance. A corporate-empowered lead Web team should control all sites to ensure global compliance.

• Make use of a multi-lingual supported content management system, accessible through the Internet all over the world. If you already have a CMS, perform a globalization review of it to decide whether it is prepared for your company’s global future.

• Develop and implement a global design template that implements a good global gateway, not just a language selector.

• If possible, and if not already the case, build all applications and websites using Unicode.

• Make use of translators who are able to interpret the original content and translate it not in a literal way but in a logical appropriate way.

• Globalization is also about acquiring the knowledge that best fits your company goals and products by researching other globalized sites by competitors, clients and suppliers.

• Set-up a global website workflow that works. Make it simple and achievable by integrating it in existing business processes.

• Use online surveys after implementation to review your implementation and to optimize your final globalized websites.

• When designing your globalized sites, take time to think about the future. Upcoming technology, products, features, and so on can have impact on your current designs and implementation. Making architectural changes afterwards can be very expensive and inefficient. For example, site personalization has a large impact on how to design your site. So even if you do not plan to use it now, still add it to your site support requirements list.
References
- Forrester - Creating Global Web Site Standards That Work by Ron Rogowski
- Wikipedia - Internationalization and Localization

Glossary

ANSI / ASCII
‘Single Byte’ character sets. Each character stored as a single byte, giving 256 possible characters.

i18n
Abbreviation of globalization, the ‘i’ stands for the “I” in globalization, the 18 for the letters between the ‘I’ and the last letter of globalization, the ‘n’.

Unicode
Unicode is an industry standard designed to allow text and symbols from all languages (See Universal Character Set) to be consistently represented and manipulated by computers. Unicode characters can be encoded using any of several schemes termed Unicode Transformation Formats (UTF-8).

UTF-8
UTF-8 is a variable-length character encoding for Unicode. It is able to represent any universal character in the Unicode standard, which is backwards compatible with ASCII. For this reason, it is steadily becoming the preferred encoding for email, Web pages, and other places where characters are stored or streamed.

Glyph
A Far Eastern Character

DBCS
Double Byte Character Set

CMS
A content management system (CMS) is a software application which organizes and facilitates the collaborative creation and management of web content.

Examples: Adobe Experience Manager, SDL, Sitecore.
About Montage

Montage Interactive Ltd offers thought leadership for and co-management of the global web presences of US and European manufacturing enterprises.

Montage was founded in 1989 and is based in the New Zealand city of Christchurch with an office in the UK.

Serving customers in the US and Europe since 2000, Montage has provided marketing communication services to companies such as Heineken, Diageo, Invensys, General Cable and Eaton. Our multinational, multi lingual team provides customers with a wealth of experience in planning and delivering business focused web sites and applications in the manufacturing and engineering sectors in the Americas, Asia / Pacific and EMEA.

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