

# Designing Multilingual Web Sites: Applied Authoring Techniques

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## ABSTRACT

International corporations and small organizations recognize that although you can buy in any language, you must use the customer's language to sell. Because of this, the dominance of English in the Internet is lessening. To effectively author for the Internet, the practice of sequential design in one language followed by subsequent adaptation to accommodate another language must change to that of creating an initial design accommodating multiple languages at once. But anytime more than one language is involved in anything many challenges arise. These must be addressed and overcome to achieve accuracy in message delivery. The challenges to doing this in the instant, dynamic, location-independent media that are available on the Internet are as unique as the demand for the capability is great. That's what makes it fun!

This workshop addresses key issues in Designing and Authoring Multilingual Websites. Writing considerations, dealing with information, the way it is presented, and the content structure are addressed as are the technical issues of file structure, data definition and implementation. Through questions and answers, participants will help "design and build" a multilingual web site. As each of the key definitions is created, the participants will be presented with issues related to those definitions. In this way, we will work through the entire process, giving the participants a chance to learn more about the questions they may need to ask in order to create their own effective, maintainable, sustainable multilingual web sites.

## Categories and Subject Descriptors

H.1.2 [Models and Principles]: User Machine Systems *human factors, human information processing software psychology*;  
H.5.4 [Information Interfaces and Presentation]: Hypertext/  
Hypermedia *navigation, theory, user issues* I.7.4 [Document and Text Processing]: Electronic Publishing

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## General Terms

Design, Documentation, Human Factors, Management, Theory

## Keywords

Internet, site design, site development, international, multilingual, culture, human factors, management, processes, implementation, user interface.

## 1. INTRODUCTION

In order to begin the design process, certain key questions must be answered. These include not only technical issues but also management issues. In many cases, project delays can be avoided by simply establishing the answers to key questions at the beginning. This is the same as creating editorial guidelines. What kind of site am I going to create? For what purpose? Who is my audience? Why are they going to look at the pages? Once these questions can be answered, a great deal of the fundamental design process is also complete.

## 2. KEY QUESTIONS

In developing this workshop, we have already answered one key question: the site is going to be multilingual. This necessitates a number of design considerations that are not required for single-language sites. Moreover, there are management issues to be addressed. Even though it is possible for multiple authors in multiple locations to log on to a single site to update pages, that process must be managed to ensure the pages are in sync and/or that sequential postings occur within the required timeframe.

But even after deciding that we are going to produce a site that will be authored in multiple languages, we have quite a few questions remaining. Which languages? How many languages? Two? Three? More? Technical issues abound in the answers to this question. Then there are the cultural issues to address. What is permitted or not in the culture? Management issues will include where the translator is located and how the translation process is coordinated.

Within each of the Key Questions, from the initial determination of languages to the definition of strategic and tactical goals for the site, many other questions must be asked. What are the implications for one design over another? What are the technical and maintenance issues? How can these be addressed? What is the level of effort required from whom? For what? How is success going to be measured?

### **3. DESIGN ELEMENTS**

The answers to the Key Questions determine the design elements applied to data/file structures and the user interface. Which methods may be employed will depend on the particulars.

#### **3.1 Colors, Fonts, Graphics**

The choices for colors, fonts, and graphics will be limited by the purpose and the type of site as well as the cultures of the target audience. Technical considerations include average word length, reproduction, font definitions, file locations, and embedded text.

More often than not, the implications for change are greater when more definitions are created. Font definitions may be necessary in some cases, but could result in poor delivery of the message because the computer the person is using to view the page does not recognize a certain font. Embedding text in graphics may solve one part of the problem, but can also create a management and maintenance headache.

#### **3.2 Structures**

Technical design includes building file naming conventions and directory structures that allow for clear parallels between each of the languages. For pages created dynamically from database files, the code must be able to distinguish languages.

#### **3.3 Page Navigation and Content**

The user must be presented with clear navigation methods. Ideally, these are content based (not "click here") and synchronized across languages. This method requires editorial understanding of the material. Another method is the icon approach. While the icon method does work, it relies on non-verbal communication which may not be effective in cross-cultural settings or may not work at all for more complex and abstract ideas. What is the logic to be applied to the navigation scheme? How is that logic reinforced and presented to the user? What are the advantages/limitations of the navigation scheme?

### **4. TECHNICAL ELEMENTS**

The file structures and naming conventions developed should take into consideration the long-term strategic goals for the site. That will make development and maintenance easier. It will also greatly simplify the management process. In addition to whatever is being created today, what may be necessary tomorrow must be factored into the design as much as possible. This means the design has to be flexible enough to allow for change and should also provide a mechanism for implementing the changes.

#### **4.1 Predicting Change**

How can change be predicted? We know that things will change, but in what way? How can we know what to expect in advance? Being able to predict the way in which a site will need to change has a great deal to do with the relationship between the information being delivered and the way in which that content itself changes. There are a number of methods that can be used to

successfully predict changes. Once the change rates and types have been clearly defined, designing both editorial and file structures to accommodate the changes is relatively easy.

### **5. MANAGEMENT ISSUES**

Successfully managing a dual or multilingual site demands development of processes to manage the cultural and logistical issues inherent in such projects. In addition to language and presentation issues which must be considered in the context of the target audience, the review processes and cycles must be clearly defined. How are deadlines to be determined? What are the goals for the project? What are the timelines for each part of the schedule? What delivery methods will be used? To whom will what be delivered? In which formats?

#### **5.1 Market Factors**

The decisions for design and presentation should be based on research done in the target market. What are the accepted advertising practices in that market? What will the people in that market expect? What will they be offended by? To avoid delays and costly mistakes, the answers should be developed in cooperation with reviewers and translators in the target markets.

#### **5.2 Legal Limitations and Liabilities**

The market, product, and industry will in part determine the legal liabilities and limitations. That is why it is critical to ensure both terminology and presentation do not conflict with local laws and conform to the standards accepted for use in the target markets.

#### **5.3 Processes and Procedures**

Processes and procedures must be put in place to handle the various tasks from initial research through design, authoring, and translation. How will the initial research be collected? From whom? Where? Over what period of time? What points must be addressed in the design phase? How are the glossary and vocabulary lists for the translators to be managed? What are the requirements for sign-off? How are conflicts in design or procedures to be resolved? When deadlines are established, how are they to be enforced?

##### *5.3.1 File Management, Transfers, and Ownership*

Especially with Internet-based development, it is common to have people in multiple locations working on the same project. How are the files they create to be managed? What is the procedure to be used for file transfers? Who owns the files? What formats are to be used? Are there standard templates or style sheets? Do these imply writing requirements? Has enough flexibility been built into the authoring process to allow creative exchanges of ideas? Who has the authority to change the files? Who can change the design? On what basis? To what extent? Clear, culturally-aware communication between all those involved at all levels throughout a defined process is the foundation for effective design, authoring, and implementation of multilingual web sites.