

An Introductory Guide to Creating and Managing Language Class Websites

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Abstract

The Internet is taking on an increasingly essential role in most of our lives, and presents a great many potential educational uses from which both teachers and students stand to benefit. This article begins by suggesting that a class website can be one effective way of tapping into the possibilities that the Internet offers, and that such a website has a greater chance of becoming a truly useful, pedagogically valid, and integral component of a course if the teacher manages most or all aspects of it rather than entrusting it to a professional technologist. The remaining sections then aim to serve as a primer for language educators who are interested in authoring their own class websites, but may be unaware of some of the basic technology, design, and content issues that they ought to consider as they embark on the task.

Introduction

While Computer Assisted Language Learning (CALL) may still retain some of the sparkle of a new trend, and also unfortunately at times a formidable aura of incomprehensibility for the uninitiated, it is fast becoming a permanent fixture of language teaching around the world. In the foreword to a popular book on CALL published nearly fifteen years ago, Alan Maley predicted that “with time CALL will come to be taken for granted in much the same way as are OHPs or tape recorders” (Hardisty and Windeatt, 1989, p. 3). Now, this prediction seems somewhat off the mark because CALL is still far from being taken for granted even though its use is becoming increasingly widespread. This is primarily because, unlike relatively stable and familiar tools such as OHPs and tape recorders, computer capabilities are still expanding at a breathtaking pace. In recent years, Internet content and computer connection speeds to that content have grown to a degree perhaps unimaginable to early practitioners of CALL, and have consequently placed the Internet at the center of CALL pedagogy today.

In light of these developments, placing CALL in a category that includes OHPs and tape recorders now seems rather antiquated because the computer’s role in education

and society has grown far beyond that of a simple tool. Computers now provide access to more material than any textbook ever could, and give shape to whole new domains of communication. These electronic domains are being woven more and more into both the social and professional spheres of our lives, and so it should come as no surprise that our students will increasingly be expected to have mastered the skills required to fluently participate in them.

1. Why Use the Web in Language Courses?

While the term *Internet* covers a wide variety of applications such as e-mail and usenet, the application that is having the biggest impact on not only education but also society as a whole is undoubtedly the World Wide Web. Some teachers are drawn to the Web because they realize that it allows them to carry out various types of learning activities and projects that would otherwise be impossible. It is likely that many of these teachers already have an interest in technology, and they see the Web as an opportunity to add a digital dimension to their teaching. Other teachers are attracted to the Web as a social phenomenon and, even if they do not have any particular interest in its technological aspects, they recognize that adding a Web-based component to their courses and giving guidance regarding how to use the Web effectively may help prepare students to succeed in our Internet-permeated society.

Chun and Plass (2000) suggest that the World Wide Web can assist second language pedagogy due to four of its inherent features: the staggering amount of authentic materials it makes available, the communication possibilities created by networking, the multimedia capabilities it offers, and the hypertextual structure of its information. While the first two features basically facilitate functions (namely, information retrieval and sharing) that have been in existence long before computers entered the scene, the last two represent new ways in which information is being organized in our networked world, and students who have maximum exposure to the Web will thus be in the best position to master the emerging set of literacy skills associated with electronic media.

Students themselves are likely to implicitly recognize the value of developing electronic literacy skills in conjunction with language learning. In an extensive ethnographic study of various CALL courses, Warschauer (2000) reported:

Students saw themselves as developing important new life skills that integrated technology and language. It was not as if 'language' existed independently of the computer and the computer served as a vehicle to help them learn this autonomous language. Rather, learning to read, write, and communicate in the electronic medium was seen as valuable in its own right. (p. 46)

If students perceive a natural connection between language and technology, and if teachers recognize electronic media as comprising an increasingly accessible, important, and expanding mode of communication, then it follows that using the Web in our language classes is a natural and productive course of action.

Rather than rushing headlong into new Web-based projects, however, teachers ought to devote some time before making concrete plans to carefully considering what is unique about the Web as an educational medium in order to ascertain what types of learning tasks the medium most naturally supports. This entails giving some thought to how the relatively new mode of digital communication that the Web belongs to differs in essence from its immediate predecessor. In a tectonic cultural shift that deserves our close attention, the personal computer is currently in the process of overtaking print as society's dominant medium for thought and expression. Print has reigned supreme for approximately 500 years, and as many have already pointed out (e.g., Bolter, 2001; Lanham, 1993) the medium of print tends to nurture certain conceptual tendencies such as linearity, analysis, authority, transparency, stasis, and closed systems. In contrast, the digital medium leans toward association, synthesis, collaboration, opacity, volatility, and fluidity; thereby renegotiating the relationship between writer/designer/teacher and reader/user/student. Though it may be true that any attempt at designing a Web-based learning component is better than no attempt at all, it is also surely true that educators who make an effort to grasp what this fundamental shift in media implies for materials creation and curriculum design are in the best position to add a truly innovative facet to their teaching repertoire.

2. A Class Website as Anchor, Hub, and Evolving Educational Space

The Web places a seemingly endless amount of target language material at the fingertips of the learner. While this presents an unprecedented amount of options, the truth is that even native speakers can find the sheer amount of information available online to be daunting and the process of navigating through it to be, at times, less than satisfactory. Language learners' Web experiences are even more likely to involve distraction and frustration unless they have a dependable anchor that can serve as a foothold in the new environment, and as a guide when they venture forth. A class website can become that crucial anchor. Also, it can serve as an online communication hub for the teacher and students that extends the educational experience beyond the time and space limitations imposed by physical classrooms. A well-designed class website tends to take on these and other roles, and naturally becomes the organizational heart of the class. Additionally, although a teacher's first foray into website creation is unlikely to result in a site overflowing with multimedia and other complex state-of-

the-art features, it serves to establish a digital presence that can grow and evolve over the years in conjunction with the teacher's own growing and evolving grasp of the medium. Eventually, if a serious level of commitment to the project is maintained, the website will become a flexible and dynamic educational space that effectively appeals to a wide range of learning needs and styles.

Clearly, a carefully structured and well-organized class website can serve as a solid platform that gives students a great deal of support in meeting the learning objectives of the course, but an imposing hurdle needs to be overcome by any teacher hoping to use one: Someone who has a pedagogically sound understanding of what kind of content ought to be included as well as enough technological know-how to know where to begin has to actually sit down in front of a computer and start to build the site.

3. Teacher as Technologist: The Benefits of a Self-Managed Website

It is not uncommon for universities and colleges to have technological support staff who are responsible for developing websites for faculty members, thereby releasing teachers from the burden of learning about technological aspects of the Web so that they can concentrate on the content they would like to include on the site. Even if such support staff are not available within the workplace, it would be possible at many institutions to use funds earmarked for pedagogical development in order to employ outside professionals to develop a website. Thus, teachers in a position to receive technical assistance have an important decision to make once they decide they want a class website: namely, whether to rely on such assistance or to invest the time and effort required to develop most or even all aspects of the website themselves. While leaving technical aspects of the website to others may seem like the logical choice, there is much to be said in favor of teachers creating their websites by themselves and self-managing them once they are up and running.

First and foremost, a self-managed website offers the greatest amount of flexibility when it comes to updating the site. If a teacher needs to depend on a technologist every time he or she wants to make a change, one of two patterns is likely to emerge: either the website will rarely be updated, or the teacher and technologist will have to consult with each other over and over again to the point that the project will regularly consume significant amounts of time for both people. If a class website is rarely updated, it could be argued that it fails to achieve most of its potential as a fluid tool that can adapt to a particular group of students, be timely and relevant to them, and incorporate their input. Though it may be of some use as a sort of online textbook that transfers what has traditionally been done with paper, pencils, and audio-visual equipment into a more convenient medium, it misses out on the opportunity to be a "living"

and evolving document grounded in a deep understanding of the technology's ability to profoundly reinvent certain organizational and cultural dimensions of education. On the other hand, if the teacher and technologist plan to work together regularly to update the site, the teacher will have to repeatedly convey his or her vision of the site to the technologist. This may become particularly time consuming if the technologist does not have a background in pedagogy or language acquisition. In addition, the teacher might lose untold hours in conceptualizing desirable features to include on the website, only to be told later by the technologist that the ideas are not technologically practical. Add to this the ever-present possibility that the technologist suddenly becomes unavailable for some reason or another, and it becomes clear that this collaborative approach to website maintenance is fraught with hazards. It may in the end prove more time efficient and less frustrating if the teacher just learned the technology himself or herself from the beginning.

A further advantage of maintaining a class website by oneself is that it is an option open to all teachers, not only to full-time faculty who have access to professional technological assistance. That said, it cannot be denied that creating and maintaining one's own class website is a major undertaking that requires a great deal of time and effort, especially in the beginning. Exactly how much time and effort will depend partly on the teacher's familiarity with the basic technological concepts and necessary computer applications associated with website creation, many of which are introduced in this article. It should also be noted that anyone's first attempt at creating a website risks resulting in an "unpolished" site with design flaws that make it difficult to navigate and thereby hinder its usability. Some of the major potential flaws, however, can be avoided if the basic design advice offered later in this article is heeded.

It should also be noted that there is a compelling professional reason for creating and managing one's own class website. Given the increasingly vital role that the Internet is playing in communication, it makes perfect sense for language teachers, as professionals in a field that deals primarily with words and communication, to be able to make Web-based documents rather than just use them. Despite this, there is some evidence suggesting that the field of language teaching lags somewhat behind other academic areas in its embrace of computers applications as instructional tools (Kern and Warschauer, 2000). A healthy skepticism of new technologies is always welcome, as long as one is familiar enough with the tools to fully understand their possibilities and limits. Just as nearly all of us are now familiar with word processing programs such as Microsoft Word, it stands to reason that familiarity with programs that allow us to create and maintain websites is an increasingly necessary qualification in order to keep abreast with developments in the field.

Finally, though a broad generalization, let us remember that technologists tend to

focus on what machines can do. Also, technology companies necessarily focus on how profits can be made. Responsible educators, on the other hand, are primarily interested in how people learn. Thus, keeping decisions about and creation of online materials firmly in the hands of well-informed, professional educators is the best way to ensure that those materials reflect humane, student-centered, and pedagogically effective approaches to CALL.

4. Basic Technological Issues for Website Authors

The remaining sections of this article are intended primarily for teachers interested in how to go about creating a website for one or more of their classes. They assume very little familiarity with the essential technologies, and use endnotes extensively in an attempt to minimize technological references and jargon in the main text. They may also be useful for teachers who already have class websites, but are searching for productive ways in which to revise them. Finally, for teachers who prefer to leave the technological aspects of their websites to professionals, what follows will hopefully be able to inspire a few additional ideas for possible features to include on their sites. Even for these teachers who prefer to not have a major hand in the technological side of their websites, becoming familiar with the basic technical workings and primary design issues of websites as explained in this article may help to facilitate consultation sessions with technologists as class websites are planned, developed, and updated.

4.1 HTML: The “Language” of the Web

Hypertext Markup Language (HTML) is the standard code underlying what we see when we look at a webpage. When someone views a webpage, HTML tells that user’s Internet browser¹⁾ how to categorize and display the text and images. Though commonly referred to as a “language,” upon actually viewing it, what one sees looks rather like an extremely simplified form of English in which abbreviations and punctuation far outnumber actual words. The following is a simple set of actual HTML instructions:

```
<html>
<body bgcolor="#FFFF99">
<div align="center"><i><font color="#0000FF">Welcome</font></i></div>
</body>
</html>
```

This example of HTML code instructs browsers to display a document with the ital-

icized word *Welcome* written in blue and centered on a yellow background. Though it may look incomprehensible at first glance, the mystery begins to unravel if you know that colors displayable on the Web are coded with the `/#/` symbol followed by a six-digit combination of letters and numbers, and that HTML tells the browser how, where, and when to display something by using a set of instructions that initiate with brackets and close with brackets and a slash. Such instructions are called *tags* and they are, in most instances, abbreviations of English words. In this example, the `<i>` tag instructs the browser to italicize any text that follows it, and the `</i>` ends that instruction. Note that the word *Welcome* in the example appears between the `<i>` and `</i>` tags and would therefore be italicized.

HTML is often referred to as *source code*, and all of the HTML for any webpage can easily be viewed by clicking on the *view page source* option located in a browser's *view*²⁾ menu. Users of the Web who have never authored pages themselves may find it hard to imagine instances in which anyone would actually want to view the source code. However, when building your own website, the ability to view the HTML source code of other websites can be an invaluable tool for learning how the authors of those websites were able to design features that you deem worthy of emulation.

Do we really need to know how to write in HTML code in order to create a website for a language class? Fortunately, the answer is essentially no, thanks to some very useful software programs known as HTML editors that are designed to write HTML for us. However, having some basic awareness of how HTML works, along with investing in a decent HTML reference guide³⁾ will likely prove very helpful when little stumbling blocks arise, and they invariably will, during website creation.

4.2 Tools for Creating a Class Website

Obviously a computer and an Internet connection are necessary for putting a website together. Beyond that, in many cases the software programs that come prepackaged with a newly purchased computer are enough to create a rudimentary website, but they are rarely among the best available in terms of features and ease of use for beginners. Three applications that will make the website creation experience much more pleasant are an HTML editor, a graphics editor, and a File Transfer Protocol (FTP) program.

4.2.1 HTML Editors

With an HTML editor program, rather than directly typing HTML instructions, you simply type text, insert images, select colors and other attributes of the page, and move items around by clicking and dragging in much the same way as you would in a word processing program. HTML editors are often called *WYSIWYG* editors (an

acronym for *What You See Is What You Get* and pronounced “wizywig”) because of their ability to display the document you are editing on your desktop as it will appear when viewed in a Web browser. Macromedia’s *Dreamweaver* and Microsoft’s *FrontPage* are among the most popular WYSIWYG editors. Whichever WYSIWYG editor program is chosen, it will probably end up being the most valuable tool of a novice website creator. Nevertheless, no WYSIWYG editor is flawless. It is not uncommon to occasionally find slight discrepancies (e.g., differences in table cell attributes, unintended positioning of an image) between what the WYSIWYG editor shows and what browsers actually display when the document is uploaded to the Web. It is precisely at times like this that a basic working knowledge of HTML proves to be handy because it allows for a direct peek at the source code to ascertain exactly what has gone wrong.

4.2.2 Graphics Editors

Beyond the essential HTML editor program, another type of program that many first-time website authors will probably want to have is a graphics editor. This entails either an investment in a powerful commercial program such as Macromedia’s *Fireworks* or Adobe’s *Photoshop*, or a download of a less powerful but inexpensive shareware program.⁴⁾ Most graphics programs allow you to crop photographs and other images, resize them, tweak their colors, add degrees of transparency, and offer a host of other options that can help you create a more attractive class website. In addition, most graphics programs enable you to create original images using shapes and text. These images can be imported into the HTML editor and used as original class logos, link buttons, and so forth.

For first-time users, although some of the features of graphics editors are similar to those found in word processors and others are rather intuitive, it will generally take a longer time to learn how to use a graphics editor than an HTML editor. It is possible to create a basic website without graphics, so a graphics editor program is not absolutely necessary. However, a simple text website without any images will not likely have strong appeal for students, nor will it be representative of the types of documents students are likely to encounter when they explore the Web beyond the confines of the class website. On the other hand, it is easy to get carried away with graphics and other non-essential features such as animation to such a degree that the website becomes cluttered and confusing. The key is to strike a balance between too plain and overly ornate. A modest use of images that takes advantage of the ability of graphics to provide organizational meaning to a website’s structure and thereby improve navigability is the goal. Ideally, a class website should mirror to whatever degree possible the prominent features of professionally-produced websites in order to provide chances to

work with students on the literacy skills necessary for eventually navigating the Web on their own in the target language.

4.2.3 File Transfer Protocol

An HTML editor and a graphics editor are the only software applications needed to create decent pages for a website, but they alone are not enough to make the website viewable to the world. The files a teacher creates while putting together a website need to eventually be moved to another computer that runs special software designed to send out HTML documents. This other computer is called a *server*, the process of moving files to it is called *uploading*, and the most common way to upload files is through File Transfer Protocol (FTP).⁵⁾

Luckily, FTP programs are quite simple and take very little time to learn how to use. However, the cooperation of whoever is in charge of the server is necessary because you will need to know certain information (most likely a URL address and password) in order to contact the server, and a folder must be prepared on the server in order to receive the documents that you eventually send to it via FTP. Though commercial FTP programs are available, there are also plenty of freeware FTP programs available for download that will do the job just as well and at no cost.⁶⁾

Once you have an HTML editor program to author basic pages for your site, a graphics editor program to add non-textual elements to it, and an FTP program in order to send your initial HTML documents and subsequent updates to the server computer for publishing, then the stage is set for actually assembling the website. The design, layout, and content possibilities for your class website are virtually endless, and this creative freedom can be both inspiring and intimidating. Before a single page is created, it is best to give careful thought to the website's overall organizational structure and to base decisions on principles of usability and navigational ease.

5. Design Considerations

In this section, *website design* refers to the way in which all of the pages in a particular site are arranged in relation to one another; whereas *webpage design* refers to decisions within any given page regarding text positioning, layout of graphics, colors, and other such elements. It is the combination of these two areas of design that play the greatest role in determining a website's user-friendliness.

5.1 Website Design

It should come as no surprise that the simpler a website's system for organizing its various pages is, the easier the site is to navigate. But what constitutes a simple orga-

nizational system? Based on the dizzying range of website designs one comes across when surfing the Web, it seems that there is little consensus on how to answer this basic question. One useful way to conceptualize website design is to think in terms of the width and depth of the overall hierarchical structure. Using an outline as an analogy, width refers to how many main points are covered, and depth refers to the total number of categorical levels that the content is divided into from the title down to the smallest sub-point level included under any of the main points. In a well designed website, the “main points” become the links included on the main menu bar, and this menu bar is included on every major page of the site. It is recommended that target figures for width and depth be tentatively set at the beginning stages of planning a class website, while keeping in mind that concessions will likely need to be made once the types and overall amount of content to be included on the site become more clear.

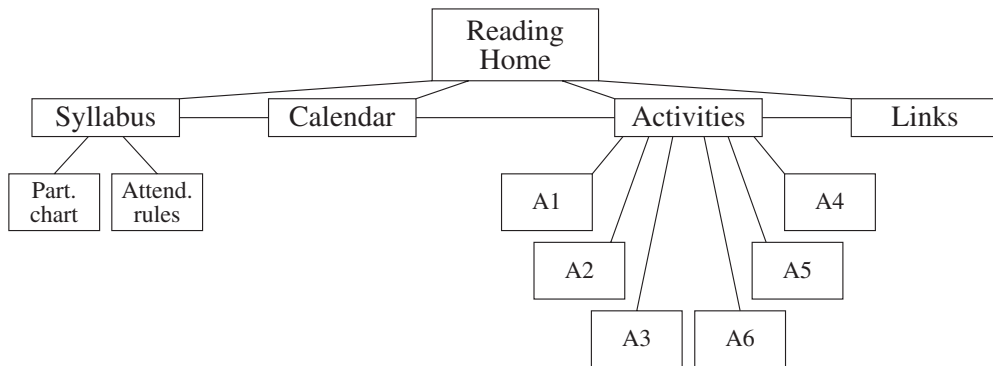


Figure 1: The design of the author's 2003 Advanced Reading class website

Figure 1 shows the basic design of my 2003 Advanced Reading class website. As it was my first website for this class, I kept the design as simple as possible. As Figure 1 illustrates, the site had a width of four and a depth of only three. This design, simple as it is, has been able to accomplish nearly everything I hoped it would in 2003. At this point in time, though I may get the urge to give it a major cosmetic overhaul in the near future, I foresee only a few revisions to its underlying hierarchical structure for 2004 in order to improve navigability (see Figure 2). I expect it to undergo slight changes like this every year that I teach the class, while hopefully never growing to the point where navigational ease is compromised. The 2004 revisions primarily involve breaking some of the main points into sub-categories in order to lessen the amount of information that some of the pages contain. These changes will add an additional level of depth to the overall design. The decision to make these changes is based on an impor-

tant usability principle: Too much text on a single page requires readers to frequently use the scroll bar, thereby interrupting the flow of reading to an unnecessary degree. Over the course of a year, my *Calendar* and *Activities* pages have both grown into rather long lists that often require students to scroll extensively in order to find the information they are seeking.

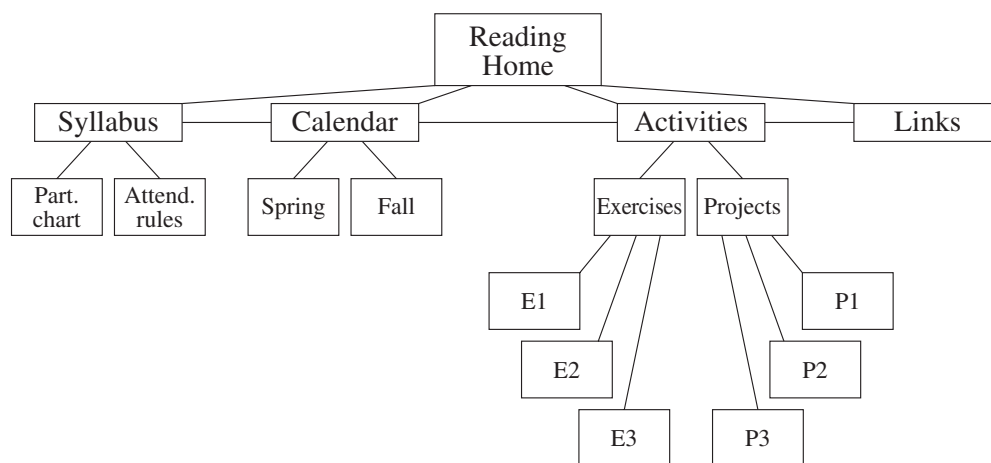


Figure 2: The author's Advanced Reading class website design revised for 2004

Looking closely at Figure 2, it is clear that there is more than one way to accomplish the changes I want to make. Why not, for example, expand the width at level two from four to five by replacing *Calendar* with *Spring Calendar* and *Fall Calendar* instead of increasing the depth? A website author faces many such choices, and things can get unruly if random rather than principled decisions are made. The basic principle I follow is to try to maintain a degree of balance between width and depth as long as my website's width is no more than about six or seven. This rule of thumb works fairly well for websites that contain up to fifty or so total pages, but then depth is allowed to exceed width as the site grows beyond that number. In other words, I consider it more important to limit the overall width of my website than to maintain the balance between width and depth if forced to choose between the two. This is because my primary audience is my students, and since they are still far from being completely fluent users of English, they are more likely to be able to easily navigate a website that presents them with at most six or seven links per page as they move up and down the ladder of depth than one that bombards them with thirty or forty hypertext choices on a single page. Forty choices on a page may sound like an exaggeration, but in fact many professionally-produced websites of large corporations and institutions now contain at

least this many links on their homepages. For example, at the time of writing this article, the homepage of *Amazon.com* had 126 hypertext links on it, and the homepage of Konan University contained 43 links to the various pages within its site.⁷⁾

In contrast to a class website, these large-scale websites often have a variety of target audiences and a massive amount of content that cannot be easily arranged hierarchically in the interest of optimal navigability. Also, authors of large-scale sites may feel a need to appeal to first-time viewers by cramming as much information onto the homepage as possible in order to give a shorthand overview of what the entire website has to offer. Nevertheless, it is debatable whether this habit of maximizing the number of links on a homepage represents sound website design. The hypertext link is a relatively recent technological breakthrough. It is possible that some authors of hypertext, especially ones with a technological rather than design background, are enamored with this new technology to the degree that they may at times overuse it, thereby failing their audience's trust in them to organize information in logical and meaningful ways as a means of enhancing navigational ease. As Stauffer (2003) argues, "the simpler your page and the simpler the system for navigating your site, the more accessible your website will be to readers" (p. 40). This advice is directed at all website authors, but it is especially important for those of us interested in creating class websites accessible to language learners.

5.2 Webpage Design

When planning how pages will look for one's first website, it might be tempting to assume that the design considerations for individual pages begin and end with attractiveness. Though "attractiveness" is certainly desirable, it is a subjective criterion that is not able to offer us much guidance. Yet beyond attempting to fulfill some vague notion of attractiveness, most of us who lack experience in working with highly visual media such as the Web are likely to underuse or even misuse some of the less obvious but quite powerful aspects of design. As Kress and Van Leeuwen (2001) explain, "design stands midway between concept and expression. It is the conceptual side of expression, and the expression side of conception" (p. 5). In other words, design is a vitally important semiotic mode that can make messages, especially messages conveyed via visual media, more meaningful and more comprehensible if skillfully exploited.

5.2.1 Consistency and Variation

Perhaps the aspect of design that can have the greatest impact on webpages is consistency. Consistent motifs on all of the pages within a website, including consistency in the placement of any elements that appear on multiple pages such as the class title,

menu bars, or an e-mail link to the teacher will not only have a positive impact on usability, but also give the overall website a feeling of cohesiveness. This cohesiveness may be taken for granted by students until it is suddenly missing, and it is precisely this feature that makes it a useful navigational aid for them. Whenever they click on a link on any page of the site, they will know at a glance whether that link has led to an another page within the class website, or to another website altogether by the presence or absence of the familiar design motifs. This ability to discriminate between internal and external links may seem easy enough for those of us who surf the Web often in our native languages, but it is an aspect of visual literacy that learners who may not be so used to relying on such non-linguistic cues need to practice, especially when immersing themselves in demanding target language materials such as websites.

Consistency in webpage design is important, but slavish 100% adherence to a certain design results not only in a potentially boring website, but also fails to make full use of what the principle of consistency has to offer. Good websites usually offer slight variations of a design motif in order to visually indicate to the readers which thematic branch of the website they are currently in. For example, if the website as a whole relies on a blue and yellow color scheme, then perhaps the heading of all the pages on the site related to long-term projects might be written in blue with a yellow background, and that pattern could be reversed (yellow text on a blue background) for all of the short-term exercises. The trick is to preserve enough of the design features that make the website recognizable as a coherent whole, while slightly altering certain features in meaningful ways that can help students to situate themselves within the website and be therefore better prepared to make sense out of the imbedded text as they encounter it.

5.2.2 Maximal Readability

Font size, font type, color contrast, scrolling demands, and use of blank space are additional design issues that affect the readability of webpages. Using HTML, the website author is able to choose either *relative* or *absolute* font sizes. Relative ones adjust to the default font size of each user's browser. Thus, a relative font size of `/+1/` viewed in a browser with a default of 3 will render text as font size 4 on that browser. Relative sizing can be considered more user-centered in the sense that it allows users to ultimately determine text size, but readability may suffer because, for example, parallel sections of text entered in table cells using one font size may suddenly become unaligned if viewed in another font size. In contrast, absolute font sizes override the default size set in browsers, giving the website creator greater control over how text will appear regardless of the settings of the computers on which it is viewed. For students accessing a language class website, consistent readability is likely to be a

more helpful feature than the ability to individually control font size, so absolute font sizing is recommended. Absolute font sizes in HTML range from 1 to 7. Font size 3 roughly corresponds to the standard 12-point font of print text, so anything below it is likely to lead to students having to squint at their computer screens as they attempt to read.

Font type (also called *font face*) is another issue to consider when designing a class website, and there are a great many font types available. Before getting too creative, however, it is important to remember that if a website author uses a font type that is not installed on the user's computer, the text will appear in the default font of the browser. Thus, it is a good idea to avoid unusual fonts if wanting to control this aspect of text appearance. As it turns out, the most common Western script fonts found on webpages are somewhat different from the most common ones used in print documents. Among the most popular Web fonts are Arial, Comic Sans, Courier New, Georgia, Helvetica, Times New Roman, Trebuchet, and Verdana (Willard, 2001). They are popular because they win high marks for crispness and legibility when viewed on computer screens. Their popularity ensures that they are installed on nearly all computers, and they are therefore recommended for text that appears on language class websites as a means of ensuring consistency and readability.

Color also plays a critical role in design, and Pring (as cited in Crystal, 2001) identifies the use of color in text and backgrounds as the most important aspect of webpage legibility. The basic rule is to maintain a strong contrast between text color and background color. Purple text on a navy background, though perhaps attractive to some, would not be a good choice because readers would have a much more difficult time reading it than if either of these colors were used for text on, for example, a white or pastel background. Also, although red and green have relatively high contrast, this combination is best avoided because most people who are colorblind cannot easily differentiate between them (Willard, 2001).

Graphic editor programs usually offer a variety of color palettes from which thousands of different colors can be chosen. Yet it is best to avoid experimenting too greatly with shades of color and limit choices instead to the 216 colors that are included in what is commonly referred to as the *Web-safe color palette*. Basically, these are the only colors guaranteed to appear consistently regardless of whether the viewer's computer is old or new, or whether it is a Windows or Macintosh system. Professional designers may find them to be restrictive, but these 216 colors should present more than enough choices for teachers creating class websites.

A final aspect of design that authors concerned about readability should take into consideration is the effective use of blank space on a page. As mentioned previously, excessive scrolling can have a negative effect on comprehension because it interrupts

the reading process. If text is broken into manageable chunks with sizable blocks of empty space between them, then users are given natural pause points at which to scroll and will be less likely to lose their place than they are when forced to scroll through a blur of dense text. This advice applies primarily to vertical scrolling, but anyone who uses the Web has likely encountered pages that require horizontal scrolling as well. Horizontal scrolling usually results from a website author's failure to account for the limitations imposed by typical computer screen sizes, and this simple design flaw should be avoided whenever possible. Computer screens are measured in pixels, and 92% of users view the Web on screens at least 600 pixels wide (Niederst, 2001). Thus, setting page width at any value below 600 assures that most viewers will be able to read it without needing to scroll horizontally. This applies to the width of the whole page, but it might be best to place text within much smaller columns on the page, just as newspapers and magazines tend to do, in order to make the most of readability. Finally, as with font sizing, the widths and heights within webpages can be expressed in relative values (e.g., 50%) rather than absolute ones (e.g., 600 pixels) in order to adjust to various computer screen sizes, but again this approach sacrifices the author's total control over how pages are displayed and viewing consistency will be lost.

5.3 Homepage Design: One Example

A homepage welcomes users, sets the overall design tone, and directs traffic into appropriate areas of the class website. It is likely to be the most viewed page in the entire site, so its content needs to be very carefully chosen and the design principles mentioned above should be used to maximum effect. Beyond providing links to the major subsections of the site, it should contain important and timely class information without becoming excessively cluttered. Figure 3 shows the homepage for my 2003 Advanced Reading class⁸⁾ and illustrates one way of combining elements that I believe makes effective use of this relatively small but most valuable corner of a website's overall real estate.

The banner at the top of the homepage in Figure 3 situates the viewer by providing the class name and level, name of the instructor, and name of the institution. The main body of the page is divided into two columns that serve two different purposes. The column on the left provides links to the four main sections of the site, whereas the column on the right serves as a sort of bulletin board that is updated weekly with information that students need before the following class convenes. Along the bottom, external links lead to the university's site, the Institute for Language and Culture's site, and sites for my other courses on the left, as well as an e-mail link to me on the right. While all of these components are necessary, it is the "live" column on the right that I find makes the biggest positive impact on class management, and tends to

become the area that students eventually grow to depend on most. I update it weekly and students check it regularly, and it allows me to make announcements, post assignments, explain changes, and directly lead students to revised corners of the site where new information awaits. Without such a section, a class homepage would still be useful due to the organizational features that hypertext provides, but it would fail to take full advantage of the timeliness and personalization that the medium makes possible, and students may not feel the need to access it as frequently as they otherwise would.



Figure 3: An example of a class website homepage

6. Content Options

As mentioned previously, a class website's overall organizational structure should be carefully considered before a single page is constructed. However, once this basic framework is decided, it is possible to proceed with the actual work of creating various pages, most likely starting with the homepage, even if certain details such as exactly what types of learning activities will be included remain unsettled. At some point,

though, all unanswered questions will need to be answered. The content possibilities for a class website are too many to count, and limited only by the amount of time and effort the creator/teacher is willing to invest. This section briefly introduces a few of the more obvious choices based on three of the basic roles that the website can assume in order to assist the class: tutor, messenger, and distributor.

6.1 The Website as Tutor

Though it can never take the place of a teacher, a class website can serve as an effective tutor if it offers interactive language learning activities and exercises that give students immediate feedback on performance. At this point not enough research studies exist to tell us the degree to which such interactivity promotes language learning, yet most teachers cannot help but be lured by its intuitive appeal. Imagine, for example, assigning a multiple-choice activity for homework that is not only capable of telling a student if a chosen answer is correct or incorrect, but can also offer an explanation as to why. At the very least, if learners can receive such feedback outside of class, then the amount of time that needs to be devoted to it within class can be reduced, thereby making room for additional in-class language learning tasks.

Actually, HTML code by itself is not sufficient for adding most interactive features to a webpage. Instead, these features are usually written in a programming language called *Java* and then embedded within a webpage's HTML source code. Luckily for language teachers who may not have the time or perhaps the will to learn Java, there are some free and extremely helpful programs available for download on the Web. A program called *Hot Potatoes*⁹⁾ is probably the best of them, and it is currently creating quite a stir in CALL circles. The Hot Potatoes software is actually a set of six applications that enable teachers to easily create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching and cloze exercises. Some of the design features such as text and background colors can be altered to match the look of a particular website, and then each exercise can be exported as an HTML file embedded with Java for easy inclusion into the site. Hot Potatoes is produced by educators for educators, and the creators regularly offer updated versions that make it increasingly easy to use while enabling exercises with enhanced performance capabilities. Even teachers who do not consider themselves technologically fluent ought to be able to master most of what Hot Potatoes has to offer in a few hours.

6.2 The Website as Messenger

Because most university language courses meet only once a week for ninety minutes, having some sort of online forum in which all the members of a class could communicate with one another would offer many potential benefits, such as the ability

to clarify assignments that may have been hastily explained as time ran out in class, or the opportunity for students to work together on collaborative homework projects without having to physically meet outside of class. A class website can offer all sorts of ways for people to share information with each other, whether it be teacher-to-student, student-to-teacher, or student-to-student communication. As author and updater of the class website, the teacher has an obvious ability to regularly communicate messages to students via this digital medium. However, as illustrated previously in Figure 3, it might be wise to reserve a specific area on one of the most frequently viewed pages in the site as a gathering point for recent news that the teacher wants all students to be aware of, as well as for messages directed at particular individuals or groups of students. On the other hand, the easiest way to offer students a means of getting in touch with the teacher outside of class is to include a clear link to the teacher's e-mail account, preferably in an obvious location on the homepage of the website.

E-mail could also be used to give students a way to contact each other outside of class. It would be possible to collect the e-mail addresses of all students and then include a list of names somewhere on the website which could simply be clicked on in order to send messages. This does, however, raise an ethical issue: It is conceivable that some students might view the sharing of their personal e-mail addresses with the teacher or other students as an invasion of privacy, and therefore perhaps it would be inappropriate to make it an absolute requirement. One possible solution would be to have each student sign up for a free web-based e-mail account¹⁰ specifically for class use. Another solution is to have students sign up for a relatively new and enticing web-based communication tool known as a *blog*¹¹ (an abbreviation of the word *weblog*).

Setting up one's own blog takes about the same amount of time as it would to sign up for a web-based e-mail account, but blogs offer a great many more potential class uses than e-mail. Blogs are basically very simple webpage templates that anyone can modify even if they know nothing about HTML or how websites function. Like e-mail, a blog offers a text field in which to write a message. Unlike e-mail, though, a blog does not have a recipient field, and when a message is finished the author clicks on a button that says *publish* rather than *send*. If links to each student's blog are included on the class website, then each student has his or her own corner of the website to which all kinds of messages, answers to assignments, and links can be posted for all to see. It is possible that students who engage in "publishing" their work via a blog to a potentially wide audience as opposed to sending or handing in their work to a single authority figure will find the experience more motivating, and feel an added incentive to do their best.

For the teacher, among the advantages of using blogs rather than individual e-mail

accounts is that blogs, as they grow, can serve as electronic records of all the messages each student has contributed to the class over time. Also, if some homework assignments that used to be handed in on paper in class are posted to blogs instead, then it becomes possible and convenient, for example, to have a Tuesday due date for a class that meets on Thursdays. This allows teachers to gauge such things as the degree to which students were able to successfully complete an assignment before plans for the next class are finalized, and therefore the chances of being caught off guard in class and then wasting precious class time in order to respond to the unexpected situation can be minimized. Also, from a language learning point of view, this staggered use of deadlines can ensure that students are receiving multiple exposures to class content during the week as opposed to the once per week exposure that often occurs when students scramble to do their homework just before class begins. In short, the use of student blogs offers yet another way in which a class website can be conveniently used to break through the barriers of time and space that tend to impose more rigid restrictions on what can be accomplished in courses that do not have any online support.

6.3 The Website as Distributor

It is also relatively easy to turn a class website into a distribution center for class materials. Of course any webpage can be printed as long as the viewer's computer is connected to a printer. However, HTML documents are not ideal when it comes to printing because they cannot easily be optimized to fit the settings of the user's printer, and they therefore often lead to wasteful uses of paper and rapid depletion of expensive ink cartridges if printed. Instead, if including documents on the website that learners will likely want to or have to print out, it is advisable to save them as postscript files. Postscript documents, unlike HTML ones, contain specific instructions for printers that optimize the printing process. The most widely used type of postscript file is Adobe's *Portable Document Format* (PDF). PDF files are recognized as the most dependable way to deliver printable documents that maintain consistent appearance regardless of the personal settings and operating systems installed on the computers to which they are downloaded (Pogue, 2002).

For students, perhaps the most attractive feature of having class documents online is convenience: Unlike a teacher's office or most libraries, the Internet is open all day and night as long as one has access to a computer. For teachers, the ability to make documents electronically available at all times can dramatically cut down on the copying chores and sometimes seemingly insurmountable mountain of paper they routinely deal with. Also, if, for example, a homework assignment is on the website and students know that they should check the site regularly, then even if they miss a class and are

unable to track down the teacher or fellow classmates to get the assignment, they are able to access it via the website and come prepared to the next class. Clearly, a class website that becomes the main depository of class information as well as an active document distribution hub is able to facilitate learning in some very practical ways, even in courses that ostensibly have little if anything to do with traditional CALL conceptions of learning via computers.

7. Concluding Remarks

Making your first class website is guaranteed to be a time-consuming process and there are likely to be some jarring bumps along the road to completion, but the potential rewards are great. Fortunately, website creation software is becoming increasingly easy to use even as its functionality expands. Although it might be tempting to start on a grand scale once you begin to contemplate all of the possibilities, it is advisable to set small goals at first that can easily be accomplished. Though the three roles of tutor, messenger, and distributor that a basic class website can simultaneously fulfill were introduced above, even a website that is only able to fulfill one of these functions would be an improvement over no website at all.

Perhaps what is most important during the website authoring process is to begin by setting some achievable goals that are soundly based in language education principles and class management needs, and then to avoid losing sight of those goals while becoming familiar with and perhaps, at times, distracted by all the options that the technological tools for website creation now offer. With a little perseverance, you will in all likelihood end up with a resource that adds a flexible new dimension to the class, opens the door to all sorts of previously unimaginable language learning tasks, and in the long run proves to be well worth the time and effort initially invested.

Notes

- 1) Browsers are the software applications used to view the Web. The most popular ones for Windows operating systems are *Explorer* and *Netscape*. These are also popular choices for Mac users, but Apple's recently introduced browser, *Safari*, is likely to become the most popular Mac browser in the near future. Whenever possible, it is a good idea to check your website in multiple browsers after uploading it in order to confirm that it is being consistently displayed.
- 2) The actual name of the menu option one must click on to view the HTML source code is likely to differ slightly according to the Web browser being used.
- 3) Two popular and highly recommended HTML guides that assume no prior knowledge are *HTML: A beginner's guide* (Willard, 2001) and *HTML/XHTML: The Complete Reference* (Powell, 2003). As the title to the latter one indicates, HTML variants exist. However, at a beginning level there is no need to worry about how exactly HTML differs from XHTML, DHTML, and XML.

- 4) A top quality graphics editor program can cost up to a few hundred US dollars. Popular options for less expensive downloadable shareware include *LView Pro* or *Paint Shop Pro* for Windows users, and *GraphicConverter* for Mac users. Each is available for under \$100 at CNET Download.com (<http://www.download.com>) and each allows for a free trial version to be downloaded first.
- 5) FTP is a method for transferring files over the Internet that does not use the Web. Knowing that the *http* that precedes all Website addresses in the URL box of your browser stands for *Hypertext Transfer Protocol*, whereas *ftp* stands for *File Transfer Protocol* helps to highlight this distinction.
- 6) The newest PC and Mac operating systems have built-in methods for connecting to servers via FTP. Also, newer versions of top-of-the-line HTML editors also have FTP functions built into them. If these are not available, free FTP client programs include *WS_FTP LE* for Windows and *RBrowserLite* for Mac. These and others are available for download at <http://www.download.com>. A popular and free Japanese language FTP client program is *FFFTP*, available for download at <http://www2.biglobe.ne.jp/~sotal/ffftp.html>.
- 7) Links on these two websites were counted on October 30, 2003, and the totals mentioned in this article do not include the additional links offered via drop-down menus. The Konan University homepage makes extensive use of such menus and, when included in the count, the total number of links swells from 43 to 141.
- 8) The image in Figure 3 shows the author's class website as of October 27, 2003. The current version of the website can be viewed at <http://www.kilc.konan-u.ac.jp/~mach/reading/reading.html>.
- 9) *Hot Potatoes* is free for educational use as long as activities created with it are made freely available on the Web. Both Windows and Mac versions can be downloaded from Half-Baked Software's website (<http://web.uvic.ca/hrd/halfbaked>). Once installed, even more types of interactive learning activities can be made using the *Hot Potatoes* software if the free supplements created by Michael Rottmeier, an educator based in Germany, are downloaded from his website (<http://www.teaching-tools.de.vu>).
- 10) Popular sites that offer free web-based e-mail accounts include Yahoo! (<http://www.yahoo.com>) and Hotmail (<http://www.hotmail.com>).
- 11) Blogs are actually webpages, and anyone who signs up for one selects an original URL address for it. Though blogs were unheard of just a few years ago, there are now a great many websites that offer free blog hosting. Among the most popular and simple to use are Blog*Spot (<http://www.blogspot.com>), Diaryland (<http://www.diaryland.com>), and Easyjournal (<http://www.easyjournal.com>). There are also a number of Japanese sites, such as Seesaa Blog (<http://blog.seesaa.jp>) that offer free blog hosting, while Blog Japan (<http://www.jblog.org>) offers a variety of useful blog-related information and links.

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