

Designing for Overseas Chinese Readers: Some Guidelines

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With its economy strong and its telecommunication infrastructure being improved rapidly in recent years, China has seen its Internet users rocketing to 22 million users today from about one million in 1997 (Hachigan, 2000).

A more web-savvy population also prompts government agencies and companies to embrace the Internet. The “Government On-line” initiative launched in 1998 requires that the percentage of government agencies, either local or national, that establish websites should reach 80% by the end of 2000. Although it is doubtful that the goal has been attained, the country is definitely moving in that direction. At the same time, Chinese companies are rushing to get web sites built in order to promote their products and services.

Not surprisingly, the language used in most of these websites is Chinese. Although some minority languages are used in websites in some autonomous regions, where there are larger minority populations, the Chinese language written in its simplified stroke system (or Simplified Chinese) is the official language for government websites. Things may be a little different for business websites, where English and Traditional Chinese may be used to cater for possible English audiences and Chinese-language speakers in Taiwan, Hong Kong and other parts of the world. This article focuses on some guidelines for tailoring web page designs for the latter group of Chinese readers. These guidelines, which are by no means exhaustive, are based on some usability research and literature

published by Chinese web design gurus. They can be categorized into font size, typeface and characters per line, HTML coding, and display of different character sets.

Characteristics of Overseas Chinese Readers

These overseas Chinese readers share some common characteristics:

- **Operating System (OS):** Although most use Mac OS or Windows OS, there is a good chance that they may not be using a Chinese language version of the OS.

This fact has some implications that I will discuss later.

- **Browser:** They may use local language version of Netscape Navigator or Internet Explorer instead of a Chinese version.
- **Language:** Simplified Chinese or Traditional Chinese. However, a larger proportion uses the Traditional Chinese writing.

Font Size, Typeface and Characters per Line

For Simplified Chinese, most web sites use a layout that accommodates 30 to 40 Chinese characters per line. The most popular font size for body text is 3 points (Chinese). However, characters written in Traditional Chinese usually have more strokes than their Simplified Chinese counterparts. Accordingly, proper adjustment should be made for web pages in Traditional Chinese. About 20 to 30 characters per line is suggested and font sizes of 3 or 4 Chinese points are commonly used (Li).

Solid usability studies concerning typefaces are rare. A recent study (Cai, Chi and You, 2000) compared the legibility threshold of characters in three Traditional Chinese typefaces, Song, Kai and Li, on a Visual Display Terminal. The researchers found that the order of legibility was Song, Kai and Li, with Song significantly more legible than Li.

This result coincides with the dominant use of the Song typeface on Chinese language webpages. For the time being, when there is no comprehensive usability study of different typefaces on webpages, it appears a wise choice to stay with Song as the main typeface.

HTML Coding

This section covers two topics: the use of *charset* code and the design of page titles.

Charset code

The character set for Simplified Chinese is GB2312 while that for Traditional Chinese Big5. Normally, when web designers design the webpages using authoring software like FrontPage or Dreamweaver, the software automatically inserts the *charset* code for the default language. Nonetheless, things are different for frames as some software packages do not add this code for the frames.

This may not be a problem for browsers with default language set at GB2312, as the majority of mainland Chinese netizens uses a Chinese version of Internet Explorer or Netscape Navigator. However, for overseas Chinese readers, the result may be garbled display in the frames. Fig. 1 shows an example, in which the contents in the left column, lower part of the middle column and the top right corner are not correctly displayed. If the authoring software does not add charset codes to frames, the web designer may need to manually add them.

Another advantage of setting the correct character set is that if the reader is viewing a Chinese language page using Internet Explorer (5.0 and above) and there is no proper

font installed, the browser automatically detects this and downloads the relevant font from a Microsoft website. Netscape Navigator, however, does not support this auto-install function.



Fig. 1: A page that contains frames with *charset* tag undefined. The contents in the ovals are not displayed correctly. www.demeng.com

Page Titles

If the user is using a browser running in a non-Chinese OS environment, page titles in Chinese will be either displayed incorrectly (as in Internet Explorer), or replaced with

question marks (as in Netscape Navigator). This is true for both Mac OS and Windows OS. This means that web pages written specially for overseas Chinese should have page titles written both in Chinese and English. One solution is to separate the Chinese part from the English description with a dash, as *chinese.yahoo.com* and several other portal sites do.

Display of Different Character Sets

Nielsen (2000) emphasizes the importance of giving users the freedom to choose her favorite language when content negotiation between the user's client and the server is not widely used. Undoubtedly, the major principles he mentions still apply when we are designing a website or the part of a website that targets overseas Chinese. Still, the case of Simplified Chinese and Traditional Chinese presents some unique problems.

If the user uses a pre-5.0 Internet Explorer that does not support auto-install feature, or browses the web on a network station that does not allow auto-install for security reasons, she will not see Chinese displayed in the browser window if a Chinese font is not installed.

In such a situation, a link leading to a page that tells her how to download free third-party software that renders Chinese will be very helpful. As the user cannot see Chinese text displayed correctly before installation of such software, the link and the webpage that instructs her on the software download should be presented in a text-as-image. Fig. 2 shows a home page that contains such a link, while Fig. 3 depicts the instructions page that describes how to download such software. Please note the paragraphs are actually

one image. Fig. 4 shows the another web portal that has such a link on its webpage, but the fact that the link is given in the text form renders it totally useless.

Another solution is to do without the character sets and their fonts for good. The US version of Sina.com at home.sina.com is an excellent example of implementing such a solution. Sina.com is now the first and only Chinese news website that offers four methods to read the stories, which are Simplified Chinese and Traditional Chinese in both text and graphic (GIF) presentations. Apparently, the site uses a software tool to automatically convert news stories into clickable GIF image maps.

One downside of using GIFs is that the user cannot change the size of the fonts, which may discourage people with less-than-perfect vision. The other disadvantage is that if the user wants to use the content, she can print it out or save it as a file, but cannot copy and paste text directly into a word processing program. In addition, there will be no visual difference between visited and unvisited links.

How does a web designer choose between the text and the graphic presentations? My personal opinion is that if the information is extremely important and does not need constant update, a graphic presentation should be used. Otherwise, present the information in text.



Fig. 2: The web portal home page at *chinese.yahoo.com* has a link leading to a page that describes where to download free software to render Chinese in browsers. Note the link in the oval at the bottom is an image so it can be displayed even if the rest of the page is in a mess.

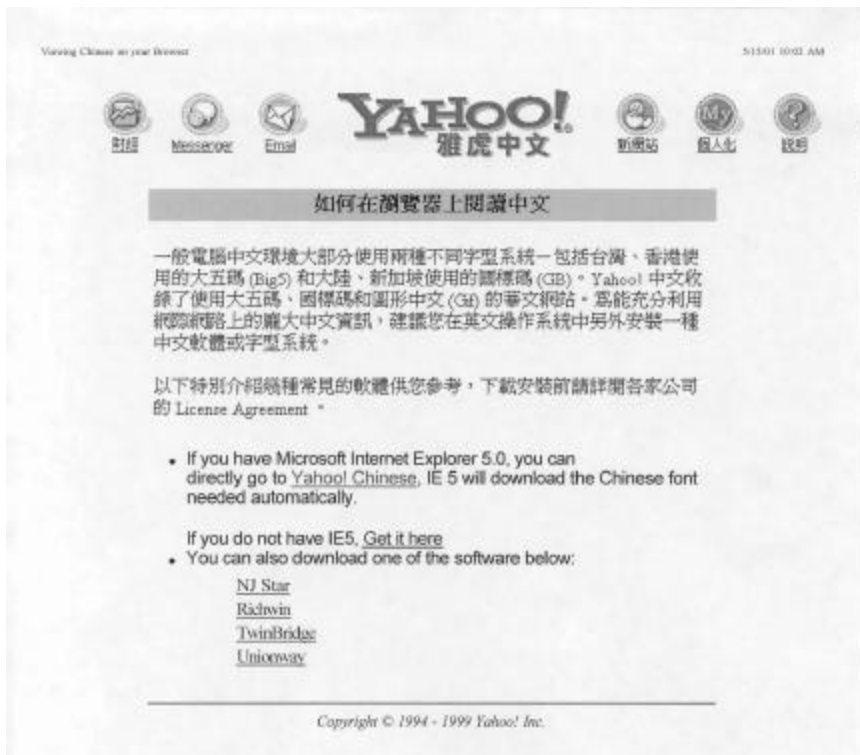


Fig. 3: A webpage that includes a GIF image showing instructions on how to get Chinese displayed in a web browser. From *chinese.yahoo.com*.



Fig. 4: The sina.com.cn homepage. Although it does contain a link that leads to a text-as-image page, the link in the oval is still text-based and would not display correctly if no Chinese font has been installed.

Summary

- For Simplified Chinese, use 30-40 characters per line. Traditional Chinese pages need less and larger characters, usually 20-30 characters per line.
- Stay with Song typeface for body text.
- Make sure the correct character set is specified in the HTML code for the webpages, especially the frames.
- Page titles should be in both English and Chinese, since some browsers running in non-Chinese OS may not display them correctly.
- Provide a link on the home page leading to how to download third-party Chinese rendering software. Both the link and the page should be given as text-as-images.
- If information is extremely important, give it as an image.

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