



# Computer-Mediated Communication

*This column explores computer-mediated communication between professionals. It explains new technologies, discusses issues, and offers advice for newcomers and experienced users alike. If you have ideas or comments, please contact Ray Archee at [r.archee@uws.edu.au](mailto:r.archee@uws.edu.au).*

RAYMOND K. ARCHEE, *Column Editor*

## Cultural Accessibility and Web Site Design

By RAYMOND K. ARCHEE, *Senior Member*

Most of us who create professional Web sites adhere to the accessibility guidelines of the World Wide Web Consortium. Accessibility, a legal requirement in many countries, usually refers to special features provided for persons who are disabled physically, cognitively, or sensorially (especially those who are visually impaired), and whose special access needs require the extra care and attention of Web site authors. However, another dimension—cultural accessibility—is rarely considered in the design of Web sites.

Cultural accessibility refers to a Web site's potential to attract and to be understood and used effectively by members of other cultures. While intercultural communication has been the subject of hundreds of articles and books for decades, scholars have only recently begun studying the concept's application to online media.

Searching the academic and popular literature reveals several keywords that relate to this issue: usability, internationalization, globalization, and intercultural access. The absence of a single word or phrase for describing this phenomenon reflects confusion and lack of interest in an important area. While some ongoing research is investigating cultural issues, the focus varies with the interests of the researchers; those conducting marketing and consumer research, for example, pursue new ways of selling products. It is up to technical communicators to publicize the issues surrounding cultural accessibility on the Web.

### Not Black and White

Take, for example, the simple use of black text on a white background:

The *Sams Teach Yourself HTML* books would have us believe that this is the cleanest, most effective method of presenting information to an online audience. Black on white represents purity and simplicity in the West. The white background is supposedly the most professional and businesslike, and certain to offend no one.

Wrong! White is the color of death and grieving in many Asian countries. When many of my non-English-speaking students open up a Western Web page, they are automatically affected by the stark whiteness of the page. Such symbolic effects are not under conscious control, so a great deal of effort is required to assimilate these pages.

Other color associations include blue for enlightenment (in India), red for prosperity and good luck (in China), yellow for royalty (Asian countries), and green for Catholicism (in Ireland). In European countries, red means communism, brown still means Nazism, and black means death. It is easy to understand why many Asian Web sites use pastel colors, which are safe and neutral but look childish to the Western eye.

The names of common Web elements have regional variations even in the same language. The basic shopping cart used to purchase goods on U.S. Web sites is known as the *shopping basket* in the U.K. and the *shopping trolley* in Australia. Thus, the name of the shopping facility and the icon used to link to it need to change for various international audiences.

### The Five Dimensions

The guru of intercultural communication is Geert Hofstede, a Dutch

researcher who, using IBM employees, performed the world's largest intercultural study. In *Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival* (1991), Hofstede identified five "dimensions" of culture: power-distance, individualism vs. collectivism, masculinity vs. femininity, uncertainty avoidance, and long-term versus short-term orientation. One of the most attractive aspects of Hofstede's results is that some cultures score somewhat unexpectedly in these areas, disrupting cultural stereotypes.

If you're interested in learning more about cultural Web issues, visit Michael Bernard's site on optimal Web design ([psychology.wichita.edu/optimalweb/international.htm](http://psychology.wichita.edu/optimalweb/international.htm)), on which much of the following summary is based.

Hofstede found that cultures high in power-distance (PD) tend to have political systems of centralized power, whereas low-PD cultures emphasize flat organizational structures. Thus, Arab cultures (high PD) feel comfortable with Web site images that imply hierarchy and power, whereas Scandinavian cultures prefer images of ordinary individuals, not company presidents.

A high score on individualism indicates that a culture values individual freedom, privacy, and multiplicity of opinions. (The United States and Australia rank first and second in this area.) A. Marcus and E. Gould, whose 2000 study applied Hofstede's research to Web design, argue that images of wealth, youth, and modernity work well in cultures with high individualism. In contrast, Asian cultures and (somewhat

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erate the structure of DTBs, the content of which can range from XML text only, to text with corresponding spoken audio, to audio with little or no text. DTBs are designed to make print material accessible and navigable for blind or otherwise print-disabled persons.

#### **From International Organization for Standards (ISO):**

ISO TC 10 (Technical Committee 10—Technical product documentation):

- ISO-16952, *First Edition*, 6/2006: *Technical product documentation—Reference designation system—Part 1: General application rules*
- ISO-81714-2, *Second Edition*, 7/2006: *Design of graphical symbols for use in the technical documentation of products—Part 2: Specification for graphical symbols in a computer-sensible form, including graphical symbols for a reference library, and requirements for their interchange*
- ISO/AWI-7573, *2006 Draft*, 2/2006: *Technical product documentation—Preparation of parts lists*
- ISO/WD-16952-10, *2006 Working Draft*, 7/2006: *Technical product documentation—Reference designation system—Part 10: Power plants*

ISO TC 46 (Technical Committee 46—Information and documentation):

- ISO-21127, *First Edition*, 9/2006: *Information and documentation—A reference ontology for the interchange of cultural heritage information*
- ISO-22310, *First Edition*, 4/2006: *Information and documentation—Guidelines for standards drafters for stating records management requirements in standards*
- ISO-23081-1, *First Edition*, 1/2006: *Information and documentation—Records management processes – Metadata for records – Part 1: Principles*
- ISO/CD-2146, *Committee Draft*, *Third Edition*, 8/2006: *Information and documentation—Registry services for libraries and related organizations*
- ISO/DIS-3297, *Draft*, *Fourth Edition*, 6/2006: *Information and documentation—International standard serial number (ISSN)*
- ISO/CD-8459, *Committee Draft*, *First Edition*, 8/2006: *Information and documentation—Bibliographic data element directory*

- ISO/DIS-9230, *Draft*, *Second Edition*, 7/2006: *Information and documentation—Determination of price indexes for print and electronic media purchased by libraries*
- ISO/DIS-9707, *Draft*, *Second Edition*, 7/2006: *Information and documentation—Statistics on the production and distribution of books, newspapers, periodicals, and electronic publications*
- ISO/CD-10957, *Draft*, *Second Edition*, 1/2006: *Information and documentation—International standard music number (ISMN)*
- ISO/CD-11620, *Draft*, *Second Edition*, 8/2006: *Information and documentation—Library performance indicators*
- ISO/DIS-25577, *Draft*, *First Edition*, 7/2006: *Information and documentation—MarcXchange*

#### **Accessibility** (continued from page 39)

counterintuitively) Latin American cultures score highest in collectivism. Singapore, Indonesia, and Guatemala, for example, have family-oriented cultures that value the history of an organization more than its features.

A masculine culture emphasizes assertiveness and competition, while a feminine one emphasizes cooperation and support. Japanese culture, which exhibits traditional male and female roles, ranks highest in masculinity. Thus, Japanese Web sites could benefit from having different sections devoted to males and females. At the opposite end of the spectrum are Scandinavian, Dutch, and Thai cultures.

Cultures high in uncertainty avoidance exhibit anxiety over uncertain events. Individuals in Greek, Portuguese, and Belgian cultures, which score high in this area, would therefore tend to prefer sites with limited navigational devices. In the U.K. and Hong Kong, by contrast, individuals would tend to prefer greater complexity and probably less control over navigation.

Long-term versus short-term orientation measures the importance of the past to a culture. Chinese culture, which values relationships, history, and Confucian philosophy, ranks highest in long-term orientation, while most English-speaking cultures rank high in short-term orientation. For example,

- ISO/CD-26324, *Committee Draft*, *First Edition*, 8/2006: *Information and documentation—Digital object identifier (DOI) system*
- ISO/NP-27729, *Committee Draft*, *First Edition*, 8/2006: *Information and documentation—International Standard Party Identifier (ISPI)* ⓘ

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English Web sites value speed and accuracy, whereas Chinese Web sites tend to be slow and congested, and sometimes include details that seem trivial to Western eyes.

#### **Can You Please Everyone?**

It may be impossible to achieve a universally accessible Web site. Attempts to create a single design that appeals to everyone without offending anyone may result in sterile, puerile sites that attract no one. The solution may be to offer different entry points to a site for different cultures. How, then, would you get the right cultures reading the most appropriate alternative pages?

I think that this is the subject of another article.

See you on the 'net! ⓘ

#### SUGGESTED READINGS

Hofstede, G. *Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival*. New York: McGraw Hill, 1991.

Marcus, A. and E. Gould. "Cultural Dimensions and Global Web User-Interface Design: What? So What? Now What?" Sixth Conference on Human Factors and the Web, 2000. Retrieved August 20, 2002, from [www.amanda.com/resources/hfweb2000/hfweb00.marcus.html](http://www.amanda.com/resources/hfweb2000/hfweb00.marcus.html).