Chapter X
Cultural Cognitive Style and the Web: Toward a Theory and Practice of Web Design for International Users

Anthony Faiola
Indiana University-Perdue University Indianapolis, USA

Sorin Adam Matei
Purdue University, USA

ABSTRACT

Several technological developments have altered our world in the last half-century. Among these were the new information processing and distribution platforms supported by computer-mediated communication (CMC). In 2005, Forrester Research found that 50% of Internet users were non-English speakers, and this number would increase to 66% by 2006. For many designers and Web usability researchers, addressing this situation seem limited to translating Web interfaces or content. Although early studies in usability testing have identified considerable cultural differences among users (D’Andrade, 1984; Evers & Day, 1997), a need exists for a more rigorous investigation from a cross-cultural perspective into how Web sites are designed. The authors hold that the cultural cognitive styles of Web designers ultimately affect the performance and preferences of online users. As a result, specific attention should be paid to the impact of the Web designers’ culturally shaped cognitive style on the design and development of online information.

INTRODUCTION

Several technological developments have profoundly altered our world in the last half-century. Among these, of central importance were the new information processing and distribution platforms supported by computer-mediated communication (CMC). These particular developments have re-
duced the time lags, human and material costs, and space limitations intrinsic to the traditional flow of communication, which, until recently, supported most large-scale organizations, businesses, and social groups. A cross-cultural community of interests, commerce, ideas, and technology has emerged as a natural outcome of these developments. Its impact is omnipresent, affecting a large number of cultures, knowledge domains, and activities (Edwards, 1994).

In 2005, Forrester Research found that 50% of Internet users were non-English speakers and predicted that by 2006 this number would increase to approximately 66%. At the same time, Inktomi and NEC Research state that only 14% of Web sites are in a language other than English. Consequently, half of all Web users are able to understand less than a sixth of the Web sites. This was especially prevalent in Asia, where Internet use climbed from 38 million to 95.8 million in three years (WorldLingo, 2000).

This unprecedented proliferation of non-English-speaking e-commerce consumers suggests that a paradigm shift is imminent in the global marketplace, in response to which Web developers must formulate new strategies for effectively delivering Web content (Del Galdo & Nielsen, 1996). Specifically, communication technologists must consider the cross-cultural challenges that will inevitably confront the online world (Houston & Eckhardt, 2001; Zhang, Schmitt, & Haley; 2003).

For many designers and Web usability researchers, these challenges seem to be limited to translating Web interfaces or content. Although accurate translation of site content is imperative, there are far more important human factors related to information perception and organization, which are rarely considered by Web site developers. Chief among these factors are the subtle psychological dimensions of human-computer interaction (HCI), which come into play when a culturally diverse audience interacts with Web content (Ess & Sudweeks, 1998; Faiola & Matei, 2005b; Her-