

# Cross-Cultural Dimensions of National Web Portals

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## INTRODUCTION TO CULTURE

Culture can be defined as the manifestation of “learned behavior consisting of thoughts, feelings and actions” (Hoft, 1996, p. 41) formed under the influences of social, biological, psychological, economic, and ecological environments over an extended period of time. But, as Hoft notes, culture is a complex subject encompassing many diverse concepts. By 1952, Kroeber and Kluckhohn (1963) had already identified 164 definitions of culture, ranging from “learned behavior” to “ideas in the mind,” “a logical construct,” “a statistical fiction,” and “a psychic defense mechanism,” and claimed that over 300 existed (p. 291). Culture is a product of learning (Hoebel, 1971; Murdock, 1965), varying from place to place and changing over time. Such changes are accelerated by various social exchanges, direct and indirect, among peoples. Creative processes or innovations diffuse through cultures, so times of rapid technological innovation are likely to see accelerated cultural change.

This article examines national Web portals in countries around the world. Portals are “gateways” to the Internet; Web sites that provide some basic information and services themselves and, more importantly, provide access to selected sites in the Internet through links and to many other sites through search engines. Initially, there were only a few such sites (notably Yahoo!). But Yahoo! was quickly followed not only by American competitors but national portals in many countries. While national portals show considerable similarity, some important differences reflecting local cultures can be found.

## CONVERGENCE AND DIVERGENCE

When new technologies become available and cultures adopt them, there is a wide range of possible outcomes that can be described along a dimension of convergence to divergence. Sometimes, cultures become more similar as they adopt technology, leading to convergence. Alternatively, cultures

may adopt technology in different ways that maintain or even further accentuate their differences. This leads to divergence. These hypotheses are discussed in more detail by Webber (1969), Yang (1988), and Ronen (1986). With convergence, economic development means that cultures should begin to become more similar in social organization, class structure, family characteristics, and so forth, as they must pass through a “relatively fixed pattern of development” (Coughlin, 2000, p. 422). In addition, “the rapid growth of telecommunications and computing technology ... holds profound implications for possible societal convergence” (Coughlin, 2000, p. 428). The Internet could play a key role in this process. While research shows that convergence is by no means inevitable, particularly in a simple linear fashion, the concept remains a useful way to view the impact of change on cultures.

Most research on global or international information systems takes a divergence perspective, pointing out the problems that can occur when cultural differences are ignored. For example, Fernandes (1995) and Del Galdo and Nielsen (1996) provide guidance on user interface design. Both books point out problems that have occurred when user interfaces designed for one culture have been applied to another. More recently, researchers have focused on the Internet. Okazaki and Rivas (2002) discuss how organizations can design Web pages for specific cultures, while Luna, Peracchio, and de Juan (2002) and Seilheimer (2004) discuss the difficulties in using a single site to serve many cultures. Simon (2001) found differences in the perception of Web sites and satisfaction with them among different cultures (and between men and women), while Marcus and Gould (2000) reviewed selected Web pages, and found that culture affects their design.

However, when Ein-Dor, Segev, and Orgad (1993) investigated the effect of culture on international information system construction, they found considerable consistency, and thus, support for the convergence view. Ito and Nakajoji (1996) provide an interesting example of convergence, showing how Japanese word processors follow a Western typewriter model. They note that Japanese programmers

*Table 1. Hofstede's cultural dimensions*

| Dimension                              | Description  |
|--|--|
| Individualism<br>Collectivism          | Individualistic cultures expect their members to be independent and look after themselves.<br>Collectivist cultures have a tightly knit framework of mutual dependencies and obligations.  |
| Power<br>Distance                      | High Power Distance cultures accept unequal distribution of power within its society.<br>Low Power Distance cultures strive for equalization and participation.  |
| Uncertainty<br>Avoidance               | Strong Uncertainty Avoidance cultures attempt to control uncertainty by strict rules and codes of behavior.<br>Weak Uncertainty Avoidance cultures are not as strictly controlled and deviation is more acceptable.  |
| Masculinity<br>Femininity              | Masculine cultures emphasize achievement, success, and assertiveness.<br>Feminine cultures emphasize caring, close relationships, and harmony.   |
| Long-Term<br>Orientation<br>Short-Term | Long-term oriented cultures promote the family, respect for older people, and virtuous behavior such as hard work and frugality.<br>Short-term oriented cultures develop equal relationships, emphasize the individual, and promote creativity and self-actualization. |

began with English languages (e.g., Fortran) and were reluctant to switch later to Japanese programming languages. Thus, information technology can also be a force for cultural homogeneity. However, Bagchi, Hart, and Peterson (2004) found that the Japanese favored fax communication over e-mail much more than Americans, because of the difficulty in representing Japanese characters in e-mail.

At the same time, researchers must remain aware that all differences may not be attributable to culture. As Hofstede (2001, p.68) notes, "if 'hard' variables (economic, biological, technological) predict a country variable better, cultural indexes are irrelevant."

The Internet is changing the way we do business, obtain an education and learn other skills, gather information, bank and invest, pay bills, listen to music, see movies, buy and sell things, exchange greetings and communicate with others, express views, participate in debates, and are entertained. These changes are likely to affect cultures. But are all cultures being affected in similar ways, leading to greater cultural homogeneity (i.e., convergence)? Is the Internet a "virtual cultural region," as Johnston and Johal (1999) suggest? Or are different cultural groups adopting this particular information technology in different ways consistent with their culture (i.e., divergence)?

## MEASURING CULTURE

Given the wide range of definitions, measuring culture is clearly a challenge. Geert Hofstede (2001) has provided a useful framework (which has been popular since the first edition of this book was published in 1980). Perhaps this work is particularly popular within the IT literature because his subjects were IBM employees. While there are critics, for example, MacSweeney (2002), any empirical research on culture should at least consider this work.

Hofstede (2001) found that culture may be differentiated via five major dimensions. These dimensions are described in Table 1 (adapted from Hunter & Beck, 1997). He then measured these dimensions in 53 countries, reporting both the score and the rank. For example, Malaysia has the highest score on power distance (104), and Austria (11) the lowest.

## CULTURE AND WEB PORTALS

Web portals are Internet sites intended to be the starting point to locate information and services on the Web. Yahoo!, which began as a search engine in 1994, is perhaps the best known example. Full-service national portals are now quite common. They are designed to appeal to a more focused audience within a country or culture, typically offering a search engine, directories of links on a set of selected topics, news items (including weather, sports, entertainment, and stock market results), advertisements and shopping, and other services such as free e-mail services and Web pages. As the world adopts Internet technology, portal developers must balance pressures towards convergence (to provide a site much like Yahoo!, which its intended customers may already be using) and divergence (to reflect cultural variations in their indigenous portals).

Paralleling the tremendous growth of e-commerce and other Internet services, the role of portals will continue to evolve rapidly. Portals may become the major link to entertainment and informational video (as the Internet and television converge), telecommunications (offering video phone calls), financial transactions, and other key services. Therefore, portals have the potential to become a major public policy issue. In a related area, Canada has tried to protect its magazine industry against "split-run" American magazines (Magder, 1998), which add minimal Canadian

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