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September 2007

\* published in MMI-Interaktiv Journal. Volume 13. September 2007. NRC  
49886.

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# Symbolic Aspects of University Homepage Design: What Appeals to Different Cultures?

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*Keywords: Symbolic Aspects of User Interface Design, Persuasive Appeal, Cultural Dimensions, Aesthetics.*

## **Abstract**

University homepages often provide the first introduction to a university for many students in an increasingly global world. As a result, a university's ability to attract new students may rest in large part on the ability of a website to attract and hold the attention of its intended audience. The purpose of this exploratory study was to examine potential cross-cultural differences in 'persuasive appeals'<sup>1</sup> which may influence how much people from varying cultural backgrounds may trust university homepages. More specifically, this paper attempts to identify cultural differences in the symbolic aspects of these persuasive appeals in university homepages through the identification of cultural markers in message content guided by Hofstede's (1980) ground-breaking work developed over a ten year period. As the ultimate aim of this study is to design guidelines for developers of university websites that will cater to a global audience, the goals for this preliminary work are to (1) identify cultural differences in symbolic appeals in university homepages and (2) provide design guidelines for university homepages that are pertinent to, and will hold, persuasive appeal for the end user's cultural mind set. The central findings are discussed in terms of some preliminary implications for future web design.

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# 1. Introduction

The spread of the Internet has made effective communication with people from diverse nations of paramount importance. In such an environment, visual cues are becoming increasingly important where 'what we trust' may increasingly rely on 'what we see' (Sen, & Lindgaard, 2005). Indeed, there is strong evidence to suggest that individuals perceive and interpret symbolic aspects of web site design differently based on their cultural background (Fitzgerald, 2004; Fink & Laupase, 2000). Thus, when designing truly universal websites intended to appeal to a wide audience representing different cultures, a better understanding of the visual cues that inspire and promote trust in users is becoming increasingly essential. Accordingly, an exploratory study was conducted to examine how the presence of persuasive appeals in university homepages may be affected by the user's culture. The topic of persuasive appeal<sup>4</sup>, especially within a cross-cultural context, involves a complex interplay of the interpretation and assignment of meaning to experience, as we will only be persuaded by what we find meaningful. But what is construed to be meaningful may in fact depend on one's cultural mindset. Consequently, it is first necessary to understand what is meant by culture.

According to Triandis (1972, cited in McCort, 1993), culture is defined as comprising two aspects: physical culture (which includes material objects created by humans) and subjective culture (which includes the subjective psycho-social responses of humans to experiences). For the purpose of the present study, the latter definition is of primary interest, because it involves the interpretation of experience and the assignment of meaning to experience. Furthermore, it has been argued that culture is essentially a learned phenomenon, which is of a 'thematic' nature (McCort, 1993). This themacity has been associated with symbols of cultural expression, which at times are difficult, if not impossible to capture through the physical image (McCort, 1993).

As there is currently a paucity of studies examining how these thematic expressions of culture influence the effectiveness of websites across cultures, the aim of the present study was to uncover some of these themes by studying university homepage design.

## 1.1 Hofstede's Cultural Markers

Due to time and financial constraints, the identification of cultural markers in message content was restricted to three of five of Geert Hofstede's value dimensions including power distance (the extent to which weaker members of a society accept inequality in power), long versus short-term orientation (preference for innovation versus tradition), and uncertainty avoidance (which refers to the extent to which people feel threatened by ambiguity). The following section discusses each of these three value dimensions, their relation to user interface design, and the development of hypotheses based on how these value dimensions are expected to impact the persuasive appeals of university homepage design.

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<sup>4</sup> Defined as visual elements of user interface design that attract users' interest. It should be noted that, in the context of the present study, the ability of a given homepage to 'attract' interest may simultaneously include aspects of appeal and trust. This issue is discussed in more detail later.

### **1.1.1 Power Distance**

Power distance refers to the prevalence of unequal power distributions in a culture. For example, in high Power Distance cultures, people in authority such as bosses, teachers, and parents are more automatically obeyed, esteemed, and respected. In contrast, low Power Distance cultures emphasize more egalitarian relationships, thus parents and children, bosses and employees, teachers and students are more likely to view themselves as equals.

Marcus' (2000) study of university websites pointed to some interesting cultural differences. According to him, the Power Distance value dimensions impact user interfaces in the following ways:

- Different emphasis on moral and religious order and its symbols: significant/frequent versus minor/infrequent use
- Focus on expertise, authority, experts and certification
- Prominence given to leaders versus subordinates

Marcus argued that each of these characteristics is likely to affect message credibility as well as the overall appeal of university homepages.

### **1.1.2 Individualism versus Collectivism**

Hofstede (1980) found that individualistic cultures are associated with personal freedom, nurture the individual's right to freedom of thought, have high levels of competition, and profess the ideologies of self-actualization and self-realization. In contrast, collective cultures are more likely to focus on group harmony and value the ideologies of group consensus over the rights of the individual. According to Markus & Kitayama (1991), people in collective cultures define the self more in terms of in-group memberships, and perceive their in-groups to be more homogeneous than their out-groups, while the reverse is true among people from individualistic cultures.

Marcus speculates that the dimension of individualism and collectivism may influence the following aspects of User Interface (UI) design:

- Prominence given to youth and action versus aged, experienced and wise leaders
- Importance given to individuals versus groups
- Emphasis on change: what is new and unique versus tradition and history

### **1.1.3 Uncertainty Avoidance**

The assertion that things that are perceived to be different in high Uncertainty Avoidance cultures are more likely to be viewed as threatening and dangerous (Marcus, 2000) was of particular interest in the present research as it raises the question of 'how much ambiguity is welcomed and how much is avoided?' as well as 'will ambiguity enhance or detract from message credibility?'

## 2. Method

### 2.1 Participants

Five<sup>5</sup> Western and five International (Eastern) university students ranging from 19-54 years of age participated in this study. Background questionnaire data solicited information about participants' country of origin as well as how long they had resided in their native countries. Participants who had spent the first fifteen years or more of their lives in Asian or Eastern European countries were categorized as 'Eastern'; those who were born and had grown up in Western industrialized countries were categorized as 'Western'. The first fifteen years of life was selected as a 'cut-off' point for socialization as this age corresponded with Erik Erikson's (Schultz & Schultz, 1987) socio-emotional developmental stage, 'identity versus role confusion' a time of life when individuals are believed to develop a sense of self and identify with others.

Though all the participants were recruited from the same university, they varied in age and level of education as well as in the university they attended for their undergraduate studies. Thus, an effort was made to prevent selecting participants from a pool of possible participants who may have chosen the same university based on similar criteria, which in turn, may have affected the findings.

### 2.2 Materials

Content analyses were first conducted on 321 randomly selected university homepages from around the world in order to identify the presence or absence of Hofstede's cultural markers. Once these had been identified, a subset of 12 homepages was selected to produce a stimulus set that featured those cultural markers hypothesized to affect the credibility of university homepages the most. These 12 homepages were chosen according to how well they appeared to capture many of the features that Hofstede believes will impact the formation of trust between cultures. Some of these selection criteria included (1) how countries differ in the 'trustworthiness' of the portrayed information; (2) the prominence of seals and logos, which is claimed to affect people from high uncertainty-avoidance countries where there is a greater need for security, and (3) messages originating from authority figures (such as the 'President's Messages') will be more prominent sources of information in collective and high power distance cultures where credible information is believed to come more from people in authority.

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<sup>5</sup> Two notes regarding the small sample size. First, the present study was intended to be exploratory, aiming to uncover general patterns for further examination in subsequent studies. Second, the methodology employed was 'grounded theory', which holds that appropriate sample size is determined by 'theoretical saturation' which occurs when no new or relevant data emerge for a given category of interest (Glaser & Strauss, 1967). In the case of the interview data in the present study, there is 'no set number for sample size' that determines when this theoretical saturation is believed to occur (Strauss & Corbin, 1998). A sample size of five, which is not uncommon for exploratory studies of this nature, is argued to suffice for the purposes of this research, as no novel data appeared after the fifth interview data.

## **2.3 Procedure**

Participants were shown the 12 selected homepages presented in a slide show format and asked to rate the likelihood of choosing to attend the university depicted in each. Ratings were made on a scale of 0 (not at all) to 10 (definitely). Participants then filled out a background questionnaire addressing their trusting intentions, based on McKnight et al's (2002) Process-Based Model of Trust in E-Commerce. Next, participants were shown the 12 homepages again, this time as thumbnail images presented in a slide show format, to allow simultaneous viewing of them all. From this set of 12 thumbnail sketches they selected the five homepages they liked the most. Participants were then interviewed using a semi-structured interview protocol to understand what attracted them to those specific homepages. Finally, participants were given a questionnaire soliciting information about their trusting beliefs. This was also taken from McKnight's model. More specifically, questions were designed to assess each of the three categories of belief that this model includes: competence (trusting an object's ability to do what the subject needs), benevolence (trusting an object's ability to act in the best interests of the subject) and integrity (trusting an object's honesty and ability to deliver on what it promises). Overall, the sessions lasted between 50 minutes to 70 minutes. All interviews were transcribed ad verbatim with the permission of the interviewee. In total, the 10 interviews yielded in 21 pages of single spaced notes of data.

## **2.4 Data Preparation**

Following Strauss & Corbin (1998), grounded theory was applied to analyze the transcribed interview data in three successive stages: open coding, axial coding and selective coding. In this method, data are analyzed in increasing levels of abstractness. For example, in the open coding phase, which is the first step in condensing the data, initial codes and labels were assigned to the data in an attempt to find emerging themes. During axial coding, which comprised the second pass of the data, the initial set of themes was re-examined in order to locate categories and concepts that seemed to cluster together. In this line, the purpose was not only to look at the data with a higher level of abstraction, but in the process try to identify causes and consequences as well as conditions and interactions between the emerging themes. During the third phase of selective coding, important categories and relationships were identified in order more fully to focus on underlying relationships between key themes.

## **3. Results and Discussion**

The differential effect that values pertaining to the three cultural markers selected for this study exerted on the small sample is discussed in the next three subsections.

### **3.1 Cultural Influence**

Data gathered on attitudes towards seeking a university to attend, showed that the most important feature of a university for Western students was its 'look and feel' of a University in contrast to Eastern students whose first priority was perceived 'quality of education'. Further analyses revealed that two of the top three priorities for Western students were affective based criteria (e.g. 'will I have fun at this university?'),

while the Eastern students favored a more pragmatic method of university selection (e.g. 'will this university offer a high quality education').

### **3.2 Symbolic Appeals Using Images of Buildings**

One of the most noteworthy findings was the reasons given for the appeal of an image of a building. In the case of the Chinese homepage, which was favored by both groups, Western participants reported that "The old Chinese architecture made me feel welcome" and "Don't want to go to a bland university where everything is the same, people being different is nicer". In contrast, the same featured university appealed to Eastern students because "an old building is special...they are more attractive. Old buildings have a more established reputation in terms of education and stuff."

From this, it appears that at least this small sample of Western students found the age of a building interesting because it signals the promise of a 'novel' and 'unique' university experience, whereas Eastern participants were seeking validation of the university's reputation and history from the architectural design of the building. These kinds of cultural differences in the perception of buildings were also found from responses to the question, 'How did the absence/presence of buildings influence your decision to trust a university home page?' Again, Western students typically responded "[A] building is important to me, because I will spend time in it inside and out, on campus. So I'm looking for a place I will feel comfortable in that's inviting and warm." provided contrast to the typical Eastern response: "[I] looked specifically for how old the buildings were. If older it will have more history and more experience. For professors it will be better for my education, more likely to have older and wiser professors from an older more established university."

### **3.3 Symbolic Appeals Using Images of Humans**

Cultural differences were identified in how images of human authority figures contributed to, or detracted from, the credibility of university sites. This was especially the case for the persuasive appeal of the president's message: for Western students the presence of this feature caused some to distrust the site, whereas Eastern students reported greater trust for a site that had a message from the president. For Western students, this was largely due to perceptions of university presidents being political figures who will say anything for the benefit of the university, for example, "[A] president's message is not that important for me. The president's message could be fake, it is like a press release, I find in general presidents from companies etc. are like that, so I just turn off. They just say what they think I will want to hear." In stark contrast, all of the participants from the Eastern group thought that a message from the esteemed university president must be true, since 'A president will never lie.' Some participants in this group commented that "[It has] very much impact. 'I just feel I trust him'.

Overall then, some support was found for cultural differences between the Eastern and Western students. This is quite remarkable considering that all were now part of what, despite its multicultural context, may be labeled "Canadian" culture. One may expect that samples of people who have not had as much exposure to another culture as the students in the present sample, would yield even more polarized results.

## 4. Conclusions and Implications for Website Design

The fact that any cultural differences in preference were obtained in such a limited study using a tiny sample of participants, which is 'contaminated' by virtue of them living in Canada and hence their inevitable exposure to Western cultural preferences, is nothing short of remarkable. While the data are obviously insufficient for drawing definitive conclusions concerning the design of, as well as the presence/absence of particular design elements, on homepages, it is reasonable to argue that web designers who are catering to a global audience, or even to audiences representing more than a single culture, must be aware of potentially different interpretations of both the explicit and implicit verbal and nonverbal messages contained in their products. That is, an assessment appropriateness of individual design elements, of the text, and of the overall impression of web pages should be carried out before launching a site and using representatives of the different cultures to whom the product is intended to appeal.

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