

# Chapter 53

## Icon Metaphors for Global Cultures

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### ABSTRACT

*Developing icons has always been challenging, from the first appearance of icons on desktop computers to the current day mobile and tablet platforms. Many of the same challenges apply when designing icons for global enterprise software. Icons can easily be misinterpreted when the designer and user have differing cultural backgrounds. The purpose of this chapter is to demonstrate the various cultural implications of icon interpretations and misinterpretations by users in various regions around the world. The authors conducted several studies to understand the roles cultures play when icons are viewed and interpreted by users. By deploying global surveys and conducting focus groups with users from around the world, they collected data to help them understand some of the variations in understanding and interpretations of icons. The authors also looked into various cultures that might find certain icons culturally insensitive or even offensive. After extensive research, they found that some of their initial assumptions regarding taboos and cultural standards were skewed by antiquated research, and now, their more recent research data shows that there is a more accepting global view of iconic metaphors and graphical imagery.*

### INTRODUCTION

How do people from different cultures interpret icons used in software applications? How do the culturally significant ideas and imagery influence emotion and ability to associate these icons with

real world principles? These important questions need answering as software applications transcend national boundaries. Intercultural icon-user encounters are becoming more and more common as the spread of technology reaches around the world.

First of all, what is an icon? An icon is a graphical representation of an object or idea. Icons have found their way into every aspect of modern

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life. We see icons on signs, consumer goods and products, and a wide variety of user interfaces. The amount of electronic devices we use every day is growing and each device comes with its own custom-designed display. From television remote controls, car dashboard gauges, automated teller machines, in-store ordering kiosks, interactive alarm clocks, smart phones, tablets and e-readers, we see dozens of icons every day.

The spread of technology around the globe means that each of these devices needs to be quickly understood by many different and varied cultures and the icons must be easily recognizable in each of these locations. It is far more cost effective for a company to develop one central icon for each of its devices or application's functions rather than creating multiple versions of each icon that can be swapped out as a localization effort for different regions. How we find the perfect graphical metaphor or a symbolic representation of something that allows us to connect to all the users on a global scale is the challenge that every visual designer faces. The challenge has always been related to the information that is available to the designer.

In the era before the Internet, there was limited access to easy or affordable cultural information from various places around the world. The early information that supported decisions on what to include as metaphors for icon designs that different cultures understood or found acceptable was limited to a few books. These books were generally written by social anthropologists and from a business perspective. They recommended how one should conduct himself when they travel to other countries and interact with natives of that culture, without causing international incidents. For example, there is a story about how a president of the United States traveled to Australia and in an attempt to give a sign of peace to a crowd as he passed by; he had inadvertently used an offensive gesture. It is told that, when he gave the two finger "V" sign that is commonly used to represent "peace," he had the back of his hand facing the

crowd, instead of having the palm of his hand facing out. The next day, he made headlines all across Australia, as the gesture he used is understood locally as "up yours, mate!" (Axtell, 1998)

It is generally understood that certain graphical elements (like pictograms) often contain cultural elements in the form of people, places and things (Van House, Davis, Ames, Finn & Viswanathan, 2005), but there are many questions on how people perceive these graphical elements (Cho, Ishida, Yamashita, Inaba, Mori & Koda, 2007) – especially from the perspective of culture. The mental model of an individual depends on the prior knowledge and experiences (Kluwe & Haider, 1990; Jones, Ross, Lynam, Perez & Leitch, 2011). Nisbett, Peng, Choi & Norenzayan (2001) studied the influence of culture on how people perceive photographs, and they found that there is a significant difference in the way Americans and Japanese perceive photographs. A study by Peesapati, Wang & Cosley (2010) studied the influence of culture on how Indians, Americans and Chinese perceive certain culturally relevant photographs and their study revealed that culture has a role in emotional and cognitive processes around picture perception. "There is no denying that culture influences human-product interaction" (Hoft, 1996). As icons provide a majority of interaction points on a user interface, cultural effectiveness of icons is an important aspect to consider when designing user interfaces for a multicultural user base.

While working on one of our ongoing research projects that deal with incorporating accessibility of icons (Stilan, Chen & Bezuayehu, (2011), we found significant differences in the perceptions of certain icons used in our software applications. These differences, which we think are worth studying, led us to investigate the cross-cultural interactions on the icons, identifying the extent to which these interactions are influenced by the cultural background of the user. The following sections contain our research questions, a detailed description of the participants, the reasoning

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