

A cross-cultural frame on user interface website

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1. Introduction

In an increasingly global marketplace UI designer are faced with the challenge of offering usable products and services to an enormous variety of users. So far, the researchers involved are try to develop or evaluate the usability of website and machine in different cultural contexts. However, their research concentrates on the technical level. The field lacks a systematic theory and the development in principle, how to convert the result directly to the steps for designers, its challenges and the difficulties of development. In addition, cross cultural analysis and design issues will need to be considered more integrally in planning stages, and developers will need check lists and guidelines to assist them in their design phases. We propose a design element for cross-cultural user interface based on the summary of the past research findings about user interface website cross-cultural differences.

2. Cross-Cultural and UI design

2.1 Localization and Globalization

From a cross-cultural usability perspective, localization refers to the adaptation of a product, application or document content to meet the language, cultural and other requirements of a specific target market (a locale) [1]. Localization is the process of adapting a product or service to a particular language, culture, and desired local "look-and-feel." In localizing a product, in addition to idiomatic language translation, such details as time zones, currency, local color sensitivities, product or service names, gender roles, and geographic examples must all be considered. A successfully localized service or product is one that

appears to have been developed within the local culture. I am categorizing these issues into four categories with three levels of objective. The following table1. lists them from surface to bottom level.

Table 1. Internationalization Issues and levels

Objectivity Levels	Internationalization Issues	Example	Current Research Examples
Comprehensibility	Language	Product language localization	Unicode Machine Translation; Microsoft knowledge base for common computer word translation
Usability	Institutional matters	Time zone, date format, currency, measurement	
Desirability	Environmental factors	Esthetics, Icons and symbols	ISO symbols for interface; Microsoft knowledge base for international color use
	Social conventions	Forms and values.	Culture model

2.2. Cultural markers and UI design

The term 'Cultural markers' was first coined by Wendy Barber and Albert Badre to refer to 'Cultural markers are interface design elements and features that are prevalent, and possibly preferred, within a particular cultural group.' it is used to define "the interface design elements of the website that reflect the signs and the meanings to match the expectations of the local culture .the culture attractors typically comprise of colors ,color combinations, banners, the use of metaphor ,language clues, navigation controls and similar visual elements that together

her create a ‘look and feel’ to match the cultural expectations of the users for a particular domain ” (Barber and Badre,1998).

3. Cross–Cultural and UI design frame

3.1 Cross–Cultural UI design frame

As a result of this conclusion, the elements that can be formed by cultural characteristics in a webpage design have been determined in terms of user features and user expectations as the content and Hoft,N(1996). So, In the entire UI design Culture related factors, including: functional, interaction and surface (Table 2)

Function is about Individual level , include personalization information, information content, information sequence, information scope. Examples include Main content, secondary content , documents, bookmark, help, ect. The regarding the functional specification and content description in the web page. Interaction is about input/output techniques, including feedback example include the choices of keyboard,mouse, pens, or microphones for input; the choices of visual display screens, loudspeakers, or headsets for output ; and the use of drag–and–drop selection /action sequences.

Surface is about visual(text, color properties, image),auditory, and tactile characteristics, i.e., perceptual attributes. examples include choices of colors, fonts, verbal style (verbose/terse or informal /formal),sound cues and vibration modes.

Table 2. A cross–cultural frame on user interface website

Item elements	Segments elements	example
Function	personalization	Optional, configurable, created
	Information content	Main content, secondary content ,documents, bookmark, help
	Information sequence	
	Scope	Functional specifications and content description

Interaction	Input interaction	Gesture, keyboards, mouse, pens, microphones input
	feedback	Visual feedback, sound feedback, haptic feedback
	Feed–forward label	sound cues,
	IA	Site structure, page structure
Surface	color	Color relation, meanings of color, ton, value, intensity and saturation features of the color, colors fonts, verbal, style sound cues and vibration modes.
	Text	Text type, type size
	Image	Logo, icon, picture, graphic, video splay, animation, font
	layout	Size, ratio, compact position, arrangement
	Auditory and tactile	sound cues and vibration mode

5. conclusion

Essentially, this Cross–Cultural UI design is based on the theoretical study, therefore the case study is necessary to reflect subjective culture in the design of interface. Future research will include alternate data collection modes such as interviews, direct observation of user behaviour, and focus groups. Also, questionnaires will be administered to overseas subjects in their Local cultures, to minimise potential cultural problems of the current study.

References

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