Cross-Cultural Factors of Physical-Shopping and eShopping

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Abstract

In this paper we address the integration of cultural and social factors of metaphors into cross-cultural interface design. We argue that there is an emerging need to look into the doctrine behind the metaphors being used based on the national culture of the target market rather than relying on existing "Western" theories. In other words if one needs to identify some of the issues that might be pertinent to the design of eCommerce sites then one might start with looking at how people do their shopping instead of trying to combine the separate existing theories behind how people shop and theories behind interface design; both of which at the moment are based mainly on Americans.

We illustrate this point by investigating how people from different cultural backgrounds shop and how their metaphors can be translated onto eCommerce interface design. Results obtained show there is a cultural divide in the way shopping experiences and the significance of products is rooted in local contexts and that of shared meanings and practices within the cultural groupings. This demonstrates that interface designers not only need to look into heuristics and translating aesthetically related issues but also deeper cultural understandings, perceptions and beliefs of their target audience and market so as not to lose customers by alienating them. This paper should enable international designers (and marketers) to understand how metaphors are embedded within cultural and social backgrounds and also partially understand the complexities of local consumer behavior.

1 Introduction

Due to rapid technology advancement, we now live in a 'small world' with a global marketplace. In order to gain a market advantage and meet the needs of the diverse market, it is necessary to localise software products, which are to be sold internationally for the target market (Bourges-Waldegg and Scrivener, 1998; Del Galdo and Nielsen, 1996; Minocha, French and Dawson, 2003; Sun, 2001; Yeo, 2001). The majority of companies however are not prepared for a global online marketplace. It has been found this is due to a lack of understanding of local customers' culture (Fernandes, 1995).

In this paper we present an overview of the importance of addressing culture in the field of interface design and in commercial marketing. Firstly, we discuss the significance of culture in the use of metaphors and interface design, specifically, the shopping metaphor in eCommerce interface design. We then follow on with a short review of research, which demonstrates the importance of conducting empirical ethnographic work as opposed to the utilization of existing theories. Finally, we present the results of our multi-method empirical studies, which were conducted to find out the cultural variances in issues related to shopping and eCommerce. We assess how culture affects consumer behaviour and highlight its influence on selected concepts such as attitudes, perception and trust.

2 Culture in Interface Design, Metaphors and Commerce

Culture is passed from one generation to the next by family, religion, schools and other institutions through the process of teaching and learning, observation and imitation.

Designing software and sites for different cultures requires not only translation of native language and terminology but also translation of metaphors, icons, colours and other semiotics (Fernandes, 1995). The localisation of colours, language and other national formats has been and is still being researched in depth but insight into the doctrine behind metaphors is still in its infancy.

Metaphors are well known terms or concepts used from one domain to provide insight or an analogy into another less known or different domain. Mismatches that contradict the users' expectations of metaphors tend to create cognitive conflict, which in turns leads to decreased performance levels (Hamilton, 2000). Their success is therefore dependant on understanding the mental model the user has of that concept (Duncker, 2002). This project looks into this by studying the shopping metaphor.

The bartering of goods - shopping has been around since civilisation and it was only a matter of time therefore that its metaphor was incorporated into the World Wide Web in the form of eCommerce. eCommerce enables access to various products to those who would never otherwise be able to get a hold of them due to lack of exposure from geographical and mobility constraints. It has been a success for the North American market. Despite the widely publicized view of the ".com bubble burst", in the period of one year sales generated by eCommerce grew by 23.1% (U.S Census Bureau, 2004). However, as mentioned above, cultural attributes of foreign indigenous users need to be taken into consideration to continue this upward trend. Culture is a major catalyst in the process of commerce and affects merchandising and product procurement.

Consumer behaviour is a process with many fundamental influences such as personal stimuli and a variety of social influences (Engel *et al*., 1993). The encounters between local consumers and increasingly globalised consumption items are complex, contradictory and sometimes problematic. This is because quite often basic concepts have been developed in a specific cultural environment, generally that of the Western world (Usunier, 2000).

Applying existing, cultural theories has proved to be insufficient because culture is constantly changing due to foreign ideals and culture being easily spread and adapted by indigenous people all over the world via radio, television, computer technology, education, travel *etc.* Hannerz (1992) uses the flow of a river as an analogy to explain this – "...you cannot step into the same river twice for it is always moving...".

Values, traditions, and norms learned early in life may be highly resistant to promotional effort by marketers. (Engel et al.,1993). In some cases, local consumer cultures can be strong enough as to develop resistance to globalised consumption, if it is perceived as detrimental to local cultural and economic interests (Usunier, 2000).

When an advertiser is dealing with deeply ingrained, culturally defined behaviour (about food, sex, basic forms of clothing, and so on) it is easier to change the marketing mix to confirm with cultural values than to try to change the values through advertising. For example eating dogs, horses, sheep eyes etc. is healthy behaviour in some cultures. Advertising would have great difficulty, however, in convincing typical North American consumers to buy these products. (Engel et al, 1993)

In this type of situation, existing theories don't reveal what the cultural anomalies are, these can only be revealed by the researchers and designers immersing themselves in the culture to determine these inconsistencies.

This point is re-iterated by Gunter and Randall (2003) who do a study which reveals that understanding of cultural practices must pre-exist any theoretical concerns if valuable insights for design are to be rallied.

3 Theoretical vs Empirical Data

Gunter and Randall (2003) compare two theoretically driven versions of 'culture' with a third alternative which is data driven by discussing the problems related to purchasing supermarket items online. In the first theory of rational choice an emphasis is placed on user attitudes to technology and their ability to make "rational" choices as the drivers of their likely online shopping habits. The second takes an explicitly cross-cultural view. Such research typically challenges 'rational choice' theory by associating shopping behaviour with 'lifestyles'. They do not criticize these models but Rowley (2000) suggests that "While this model is useful for emphasizing the role of information and information seeking in consumer decision making, the situation is in actuality very much more

complex." We therefore champion the approach Gunter and Randall suggest as a third option. In their third option, they present an alternate look at shopping behaviour by adopting a simple 'go out and look' approach associated with ethnograph; an observational approach associated with ethnomethodology.

They argue that the observation of shopping behaviours reveals far more about the ordinary and practical problems of on-line shopping than either of the above strategies. They do this by considering the 'context' in which these behaviours take place and emphasize the role of practice present in all ethnographic studies. Their work is illustrated by an ethnography which took place in an experimental "smart house" and in traditional supermarkets. They categorised their results and created a few concepts based on them.

- Product relevancies – where the items are shopped for by "'eye' rather than weight", attention to expiry dates and freshness.
- Categorisation problems – people build up a certain amount of familiarity with where products are placed in the supermarket which cannot be replicated online.
- Lifestyle relevancies – added additives, nutritional values and so on are major concerns for certain shoppers.

Their intention was not to criticize previous research or claim that existing theories are wrong or invalid (as they do serve a valuable purpose in domains such as marketing and elsewhere) but to point out that it is necessary to investigate whether the consumer behaviour concepts and theories that are currently being used, cross the borders of cultures without losing part of their relevance and explanatory power.

4 Summary

Metaphors play a vital role in interface design where a real world concept is being transferred onto software design. Culture affects how people understand metaphors, therefore there is a need to understand the culture of the intended audience. There are existing cultural theories that can be used for interface design – especially by those who value cost over current understanding of their market's culture, but these were based on the business market and Western world alone. We posit that because culture is always changing it is better to do a simple ethnomethodological ethnographic study which can be used in conjunction with existing theories rather than relying on the theories alone. The study described in this paper therefore, probes beyond heuristics like usability, national formats like language translation, date, time and certain cultural attributes like colour by conducting current participant observational studies. It aims to provide insight into the doctrine behind the concept of the shopping to eCommerce metaphor. The results obtained will be beneficial not only to eCommerce interface developers but all developers of interfaces that are designed for multi or cross-cultural use that need a metaphor translated *e.g.* libraries to the digital library and banks to the online banks.

5 Methodology

When the implementation of research and data collection procedures takes place across national and cultural borders, a number of survey techniques may not fit with the target samples and contexts. They may not be similarly understood and therefore do not produce equivalent findings cross-nationally (Evers, 2002). For that reason, empirical work was carried out in this project using a multi-method approach. The approach comprised of questionnaires, interviews, and ethnomethodologically informed ethnographic studies (Gunter and Randall, 2003). Using a multi-method approach added to the rigor of the results obtained and ensured that they were not hinged to any one method being used. It also provided various types of data in the form of notes, audio recordings*, etc.* The validity of the results was further heightened by procedural triangulation (Denscombe, 2003).

Twenty questionnaires were completed by researchers, students and lecturers of various national backgrounds including Nigeria, Turkey, China and India. For the interview part, twelve subjects from America, Britain, Ghana, India, Ivory Coast, Kenya and The Gambia doing research in Britain who were of similar demographics in terms of age, financial/social standing and educational level were interviewed to find out about their shopping characteristics and to understand whether these characteristics were based on or biased by culture. Each of the subjects chosen had experienced shopping in different countries for a length of time and was therefore able to compare and contrast differences in shopping behaviour between the countries. The categorization and analysis of the interviews was

informed on grounded theory. The results described below were also scrutinized and affirmed by a panel of international experts from multiple cultures.

6 Results

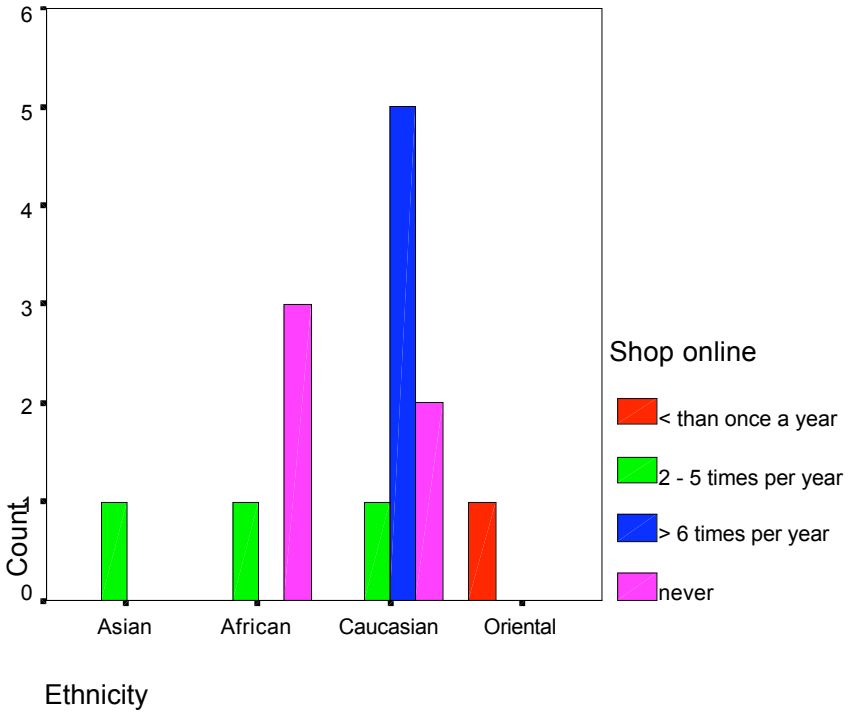

Figure 1: Contrast between ethnic groups

Preliminary results from the questionnaires show that there could be an obvious contrast between the ethnic groups in the study as shown in figure 1. Westerners (Caucasians) were in the majority as to the people who shop online.

It could be for the obvious reasons that technology is far more advanced in the Western world therefore they are more comfortable with it as it is part of their 'cultural' upbringing. Further statistical analysis has to be conducted with a bigger sample to substantiate the above claim. However, qualitative data retrieved from the results of our research show a distinct line of cultural commonalities and differences between the subjects. The categories of shopping behaviour created were termed as culturally independent - characteristics shared across cultural boundaries and culturally dependent - characteristics displayed by certain cultures only.

Culturally independent – The following were commonalities found amongst the subjects, which were irrelevant to the countries they came from and their cultural background.

- *Data security*. All showed concern about having to register on sites and having their data being accessed by companies.

- *Online images versus catalogue images*. Colour contrasts rather than tactile issues were the main reason why fashion items like clothes and shoes were bought from catalogues but not online.

Culturally dependent - These factors were heavily influenced by the subject's national and cultural background.

- *Gender specific division of labour*. Men in the study tended to hate shopping for what they deemed as feminine items like general household items and clothes and so on but were always eager about shopping

for electronic items and cars *etc*. Whereas the women generally did not show interest in those items but all were enthusiastic about shopping for clothes, food *etc*.

- *Trust in co-operations*. Westerners, especially the Americans had a deep embedded mistrust of large corporations whereas the other subjects still had some faith in big conglomerates. The quotes below are of the interviewees talking about shopping for groceries from big supermarkets online.
  American – "What… they don't care. They are… ermm, they are just selling a commodity, so () make a lot more sense for them to go through... to just shove whatever they have out the door….. Why would they care? [laughs] No. I don't. Even if they go through and have that as a corporate policy, then I know that they are not going… its not going to be the manager who says, 'We want to go through and treat our customers valuably'. They are gonna pay somebody, two or three pounds, you know... they are gonna pay somebody who doesn't speak any English to go through and just pack up boxes based on numbers or based on pictures. So they can go through and justify the cost. I don't trust corporations. "
  Gambian – "I probably would. Probably would… but then you would think that if you have a particular supermarket that's gone through the trouble of doing that… setting that type of thing up, then obviously, whoever is going to be out there choosing your fruits for you should be doing it properly..."

- *Attitude towards shopping*. Subjects from the less economically developed countries found shopping to be an experience whereas Westerners found it to be another everyday activity and some even as a chore. When asked about what they liked about shopping, the non-Westerners said it was the whole "experience" of shopping but the Westerners spoke of the particularities of a shop layout or stock variety.
  Gambian – "So you go in there ... its that whole experience. Its the whole package really. Aside from going and getting what you want, I mean, there is other things... just you know, the experience."

- *Family involvement*. Without prompting during the interviews, the non-westerners brought up family issues and said purchase decisions were family oriented the majority of the time whereas the Westerners were more independent when it came to their shopping habits and did not mention any family involvement at all.

- *Perception of the norm*. How people perceive what is the norm in their country is heavily reliant on their culture *i.e.* what one grew up in was usually better than one experienced elsewhere. Below is an example of what was said about sales people:

  Gambian talking about American sales staff – "Sales people. They can be a bit over zealous, in terms of, you know, trying to help.. and in a sense maybe you can say that they are doing their jobs but… ermm… you know, it can be a big much sometimes. Yeah. They would literally be pouncing on you as soon as you walk into a store. You know, trying to direct you to where the particular things are, maybe because they are working on commission or that's just how it is. But I think American people in general can be too overly... you know... gregarious or whatever you want to call it"
  American talking about sales staff in America and in Britain – "Also customer services, I think, is a lot better in the States than I've noticed here. Here, people, like, either if you are not spending hundreds of thousands of pounds then they don't even want to bother with you. They just kinda go through and maybe flash it and throw your crap.. throw your stuff down to the end of the end of the errr.. the check out aisle and then sit there and look, staring at you while you bag it [giggle] wait for you to pay! It seems a lot more like, with everything I've dealt with, customer services is like 'Why are you making me do any work?'"
  Ivorian talking about sales staff in Britain – "And if you ask for help you would get that help required and they would... cause I think here, the.. the staff - they are more inclined to help you because they can see where it leads to."

- *Economic division*. There is a wider and sharper gap between the more well off and the poor in the non-Western countries. This meant that luxury items were only affordable by the more financially well off. In the West, the production and availability of identical items with various degrees of quality and therefore expense, ensures that the less well off were still able to have access to all the items the social elite have access to.

- *Adaptation of goods*. For clothing items, people from the developing world tend to copy a design from a magazine but this was not done at all in the Western world.

Ivorian – "if you were buying something modern; you'd buy it from one of those foreign shops otherwise you'd just have them made"... "go buy the textiles then go to a tailor.. and they'd make the outfit for you."
Gambian – "Clothes and shoes... well in The Gambia there are no malls or anything. So most times what you'd have to do is buy textiles and then have…you know, sort of copy designs from catalogues or whatever...[ ] ..you were usually better off just getting textiles and copying designs cause they had really good tailors."

The results bring us to the conclusion that they would have implications as to how sites are designed on a generic and localised level, such as:

- Adding family oriented aspects to the interface of sites localised to non-Western countries. Non-Westerners have shown that family decisions are of significant importance.

- Scrapping the registration forms from all sites; no longer done in America but is still common practice in Britain. All the subjects displayed displeasure at having to provide their personal information online.

- Removal of conglomerate stamps from Western sites especially American sites. The lost of trust in major corporations mean that Westerners would be more unlikely to shop from a site that has a prominent reminder of the cooperate brand.

- Conducting further research into colour projection on all sites. Images on visual display units and their correlation to the actual artifact is of vast importance if the success of catalogue ordering is to be matched by online shopping.

The above list is by no means exhaustive. There are others which have not been covered such as attitudes to change, motivation learning and memory *etc.* (Usunier, 2000). This work is ongoing and the results will be translated into a set of comprehensive design guidelines. The data delivery systems or search engines used by developers to upload the web content could be set to deliver interfaces based on the localised versions developed according to the results above when completed. The architecture for this will be investigated in a later part of the project. The processes and the influences of shopping behaviour can be understood further through the ongoing research of this project. Perfect prediction of what interface will work with each culture is never possible, but continuation of this research and use of its results will significantly lower the risks of marketing failure and alienating or insulting customers.

7 Conclusion

Studies carried out by Russo and Boor (1993) and Zahedi, Van Pelt and Song (2000) into the impact of new technologies suggests that users show resistance to, and reject products with, Western metaphors in favour of products localised according to their cultural customs, idioms and so on. It is therefore important to take the stance of "prevention is better than cure". In other words instead of letting market forces sort out the problem, looking into the culture might prevent the company from losing the money first. In the field of eCommerce this is especially significant due to the exponential growth of the Internet. It is now easier for customers to change buying preferences and transfer to a different brand more localised to their cultural background (Van Dyk and Renaud, 2004) by just clicking a button.

Now more than ever, the promise of electronic commerce and online shopping will depend to a great extent upon the interface and how people interact with the computer (Lohse and Spiller, 1998)

8 Future Work

In this line of thought, future work on this research project will be to develop a cultural model specifically for determining the way in which a group of people behave in a shopping environment and what aspects of their culture and society most likely affects this behaviour.

In cross-cultural studies it is imperative that as many cultures as possible be studied to build up rich repositories which will in turn make it less expensive and time consuming for designers, companies and researchers to gather information about different cultures around the world. The key contributions to this field will be the strategy to actually translate cultural attributes into interface design and a cultural model for shopping behaviour, which at this moment in time is non-existent.

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