Putting Theory into Practice: How to apply cross-cultural differences to user interface design?

Christian Sturm

University of Freiburg, Germany

mail@christian-sturm.com

Christopher H. Mueller

ergonomie & technologie GmbH, Zurich, Switzerland

mueller@et-usability.ch

1   Introduction

Developing a technical product for a foreign market or a target group with a different cultural background always brings with it the challenge and the need of adaptation. One has to deal in this case with four different levels: a technical level including issues of technical standards (e.g. electricity systems, video norms, cell phone standards), a linguistic level including the translation of words situated in the user interface, a cultural level including issues of meaning as well as the context of use and a cognitive level covering the presentation of the device's functions (Sturm, 2002).

From the practitioners' point of view uncertainty consists in the question of how far these issues have an impact on the efficiency, effectiveness and usability of a technical product and have to be considered within the development process. Especially the numerous cross-cultural differences found on the cognitive and some on the linguistic level seem to remain an unsolved issue.

Therefore the workshop aims to address the following main questions:

- Which scope of differences is provided by up-to-date cross-cultural research in Anthropology, Linguistics and Psychology?
- Which of these differences might have an impact on human-computer-interaction?
- To which extend cultural differences have to be taken into account when interfaces for different cultural areas are to be designed?

- Up to which point the consideration of these differences is still cost effective?
- How can these differences be transferred into variable product components?
- How can cultural sensitive and cultural insensitive aspects be separated and considered in the product design?
- To which extend are people of a given culture able or willing to adapt to a not adapted technical product?
- When are guidelines enough? When to conduct additional research? Which type of research?
- How can Anthropology help us in the design of technical products and systems including cultural concerns?

Though these issues apply to all kind of products shipped internationally the workshop is planned to focus on one product category like websites or mobile devices depending on the submitted position papers.

2   Objectives

While addressing the issues mentioned above the workshop aims to reach the following goals:

- Bringing together practitioners and researchers in order to discuss the reciprocal potential in working together in this issue
- List existing and already identified cultural differences and classify them according to their importance to practical issues in user interface

design as well as in their impact on the usability and developing costs of technical products

- Identify ways to apply cultural differences to interface and product components
- Discuss different models and methods to close the gap between research results and their application in the practice
- Coming up with a guideline to internationalization and localization indicating which contribution can be provided by the different approaches and disciplines

3 Format of the workshop

3.1 Workshop organization

The workshop will last one day with two sessions of 1.5h in the morning and two in the afternoon. It starts with a short introduction to the topic by the workshop organizers. According to the papers submitted by the participants topical sessions will be defined by the organizers. Each topic will be presented in the morning by one or more participants followed by a short discussion. The sessions in the afternoon are concerned with a systematical approach to identify the importance of the cultural differences to user interface design and the closing of the gap between research results and their application. During the final session in the afternoon the results will be brought together and structured for further publication.

3.2 Participant Selection

The participants will be selected by the organizers based on their submitted position papers as well as according to the aim of getting together people with different cultural, working and scientific backgrounds. The number of participants is limited to 20.

3.3 Pre-Workshop activities

Each workshop participant is requested to send a position paper addressing his or her approach to the issues formulated above together with a short biography. Based on the submitted papers the workshop organizers will select the participants and notify them upon their acceptance. The participants will prepare a short presentation to explain their approach. Every participant is furthermore requested to read the position paper of every other participant, which will be forwarded.

3.4 Target audience

The goal is bringing together industry practitioners as well as researcher with a diverse cultural background dealing with issues in globalization, internationalization and localization of products,

culture and psychology, linguistics, cultural issues of technology, usability and user interface design.

3.5 Expected outcomes

The identification of cultural differences in their importance to user interface design and their application in user interface design is seen to be as well of interest for a broader audience. Therefore a further publication in form of an article e.g. in the SIGCHI Bulletin is taken into account.

4 Organizers' background

Christian Sturm graduated in Computer Science at the FH Furtwangen and is a PhD candidate in cognitive psychology and cultural anthropology at the University of Freiburg, Germany. The PhD project, which is funded by the Siemens AG (Munich), is concerned with the impact of culture on the use of mobile technology with a focus on Latin America. He has gained cross-cultural experience in developing IT-projects as well as conducting long-term field researches in Mexico.

Dr. Christopher H. Mueller graduated in ergonomics/environmental science at the Swiss Federal Institute of Technology in Zurich. He is managing partner of ergonomie & technologie (e&t) GmbH, Zurich. He has coached many projects to improve usability, user acceptance, emotional quality of products and their cultural suitability for the target markets.

5 References

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