

# Applying User Context Analysis in evaluations of e-commerce environments

**Geke van Dijk**

STBY, Keizerrijk 82, 1012 VM Amsterdam, The Netherlands.

(From October 2003: Faculty of Mathematics and Computing, The Open University, Milton Keynes.)

hello.geke@xs4all.nl

**Abstract:** Research on the Total Customer Experience of interacting with E-Commerce environments can be supplemented with User Context Analysis. This analysis generates extra insights on how people make decisions on the use of ICT in their daily lives. These insights may be used in evaluations of e-commerce environments and in determining their effective design.

**Keywords:** E-commerce, Total Customer Experience, usability research, User Context Analysis

## 1 Introduction

In the process of evaluating the uses of e-commerce environments it is, as other authors have already stressed, not only important to look at the site itself (the means for the transaction) but also at the total process of the transaction (pre and after sales) and the service quality and customer satisfaction (perception of value and notion of trust). These perspectives are however all focussing on the situation that the customer has already decided to use the e-commerce environment and is willing to start a transaction. From there the process may be a happy and successful one, or not.

User Context Analysis focuses on the circumstances of the customer prior to the choice of use. What means are at his disposal (internet, phone, catalogue, shop,...)? What external aspects may influence his choice of the means to use for a specific transaction (costs, urgency, personal contact, time of day, privacy, advice,...)? What personal aspects may influence his choice (habit, curiosity, control, pragmatism, tech-love/hate,...)? Knowledge about these aspects can add extra insights to the evaluation of the use of e-commerce environments and customer satisfaction (Broadbent et al, 2001).

## 2 User Context

User Context Analysis intends to look beyond the e-commerce environment that is the actual subject of the research. It tries to look at it in the context of other means that trigger and support the relationship between the customer and the supplier. User Context Analysis

may for instance conclude that a specific customer chooses a specific means of interaction only in a specific situation. This may add relevant insights to the evaluation of the effective use of an online service. It can help to answer questions on why a customer chooses to use an e-commerce environment or not, how attached he is to the environment, and how this can change in time or due to circumstances.

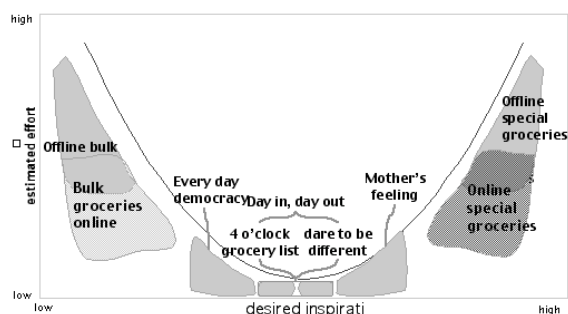
Without consideration of this broader contextual perspective one might miss certain aspects that are relevant and decisive in the real lives of the consumers. For example in the evaluation of a specific e-commerce environment the researcher as well as the respondent might consider its use a logic and given circumstance. In a spontaneous situation the same customer might however, due to real life circumstances, decide not to use the online service but to phone to the call centre, or combine both. Real life can be a bit messy and sometimes difficult to control.

The research methods for User Context Analysis are inspired by the tradition of ethnography. These include participatory observation, diary studies, single interviews and focus groups (Raijmakers, 2002). To keep the research from getting too broad and the results too general it is necessary to focus on a specific market sector or type of transaction. For instance e-banking or e-tailing.

## 3 Examples

In recent commercial research we have applied User Context Analysis on grocery shopping and on personal

finance & insurance. The research on grocery shopping was meant to give the owners and developers of a new e-tailing application insights on who would be their clients, what they would buy online, when and how. By comparing offline and online grocery shopping we found that the most important dimensions of consumer's behaviour are the desired inspiration and the estimated effort. Through diary studies and structured interviews we found that different types of shopping behaviour are more connected with specific situations and moments than with personal style. For online shopping this means that certain offerings have better chances for success than others. See figure 1 - The line represents the maximum effort one wants to make at a given need for inspiration. (Lost Boys, internal document, 2001).



**Figure 1:** Opportunities for online grocery shopping

The research we carried out on personal finance & insurance was meant to provide the designers of a new e-banking application with inspiration about its potential users. Through a survey and structured interviews we found that different people have very different styles in handling their personal finances. Some are neatly organised and others are fairly chaotic. Some are open for advice and personalised offerings, others prefer self education and autonomy of choice. And most people are not consistent in their choices. If an application is meant to serve all types of customers, it needs to be able to fit these various styles of usage. Designers must keep these styles in mind while developing the application. Based on User Context Analysis researchers can provide them with scenarios that describe these various styles (Lost Boys, internal document, 2002) (Sonderegger et al, 2000).

## 4 Further research

Research on the effective uses of e-commerce environments can benefit from User Context Analysis. With a firm understanding of the realistic circumstances the customers are coping with and the processes they are going through in order to obtain the products/services they need, e-commerce environments can be more successfully developed and managed (Brown et al, 2002) (Denning, 2003). The research we have done so far only touches a fraction of the issues that can be further explored.

## 5 Acknowledgements

The research mentioned above was done by Lost Boys in 2002. As managing director of Lost Boys content & usability I was responsible for the development and execution of all user research. Since 2003 I co-founded STBY, which is an independent agency for research and consultancy on integration and use of ubiquitous computing. From October 2003 I will start a PhD research at the Faculty of Mathematics and Computing at The Open University in Milton Keynes, UK.

## References

- Broadbent, S et al (2001), The New Architecture of Information, Bibliothèque publique d'information, Centre Pompidou, Paris.
- Brown, B et al (2002), Stop losing customers on the web, Vividence Corporation, San Mateo.
- Denning, P et al (2003), The missing customer, Communications of the ACM, Vol.46, No.3.
- Raijmakers, B (2002), Users as knowledge source for interactive services development, Lost Boys, Amsterdam, presented at *Sigchi.nl 2002*.
- Sonderegger, P et al (2000), Scenario Design, Forrester Research Inc. Cambridge.