Experience Characters as Design Tool: An Attempt for the Automotive Context

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Abstract

As part of a long-term seven-year project we aim at a better understanding of target users/groups in the automotive context, especially focusing on their user experience. Although designers can easily make assumptions about drivers and their possible experiences, they will never be able to fully grasp the experiences of different types of car drivers. Within this paper, we state that due to the very subjective nature of experiences of individual people it is more realistic to provide designers with rich in-depth information on their targeted users instead of helping them to experience like future users. Based on a qualitative text analysis study, we identified an initial set of four car experience types, which are further translated into so-called experience characters. An exemplary experience character is presented as an initial attempt for a design tool in an experience-centered design process.

Keywords
User Experience, Design Tool, Automotive Context

ACM Classification Keywords
H5.2. Information interfaces and presentation (e.g., HCI): User Interfaces, *Evaluation/methodology*

General Terms
Human Factors, Design

Introduction & Motivation

Experience is a dynamic, complex and very subjective phenomenon [6]. The experience a person has with a technology/product/services does not exist in a vacuum, but depends on multiple qualities perceived and interpreted by the person [2]. Experience is further influenced by various contextual factors, such as the dynamics of social relationships, places, other objects and it changes over time. As [2] state, no matter how good we design for experiences, designers cannot actually be other people.

Although we believe that designers might not experience like future users, there are still possibilities, methods and techniques to promote designers empathy (e.g., using storytelling, role playing, personas, etc.). In our work we build on the analysis of users' experiences for guiding experience-centered design processes. Thereby we start from qualitative analysis, which are "critical for design because it excels at explaining why and how, as well as what" [4].

Starting from the assumption, that people want to share significant experiences with others, and others often expect to hear people's stories of such experiences [7], we analyzed experience reports in online fora. Stories and narrations are a vehicle that people use to condense and remember experiences, and to communicate them to an audience [3]. This happens extensively through web blog entries, discussion fora, product test reports, experience reports, etc. As Blythe and Cairns [2009] showed in their study, such material provides a rich resource to inform research and design, but also requires new methods. Reports of qualitative studies often end with identified categories (e.g., [5]). Such a kind of

presentation of results is not that designer-friendly as it could be. Thus important insights are often not used in design practice. Within this paper we go one step further (i.e. behind listing identified categories) and present a way to communicate results from qualitative studies to designers, so that users experiences can be better understood and used to guide the design process. Our attempt is based on the belief that understanding existing experiences as well as exploring and communicating experience-based design concepts is valuable in design practice. It is more realistic to use rich user data in the design process then to invoke designer experiences.

Within this paper, we present our attempt for the automotive context. We provide some initial insights on how people experience their cars based on a conducted text analysis study of written experience reports from online fora following theoretical coding in the tradition of grounded theory [7]. We identified different car experience types, which are currently further translated into experience characters. The latter are intended as enhanced means for design, inspired by the personas technique, however with a major focus on experience characteristics and attributes of car drivers.

A Qualitative Study and Initial Findings

A qualitative text analysis was conducted for uncovering peoples' car experiences based on written experience reports collected from a online car forum. The selected forum "Autoplenum.de" (see figure 1) provides written descriptions of personal experiences by car owners, and serves as a place for communicating these experiences. The newest entries (about 25) from the car forum were selected and analyzed by using theoretical coding.

figure 1. Car Forum selected for the analysis "Autoplenum.de" (http://www.autoplenum.de/)

Text analysis by Strauss [7] is chosen as an appropriate method to analyze narrations about remembered experiences. The basic activity in the analysis was the coding of the data, i.e. isolating different concepts in the text, with three successive types of coding: 1) open coding, 2) axial coding, and 3) selective coding. Based on the coding process, the following four categories were identified:

1. *Attributed qualities:* characteristics car owners attribute to their car (e.g., fuel-efficient, fast).
2. *System characteristics:* car related features mentioned by car owners (e.g., gas consumption, engine performance).
3. *Needs and motives:* arguments car owners use to describe their needs and motives for owning a car (e.g., practicability, social belonging).
4. *Car perceptions:* experiences describing the car owners' main focus and values toward their car (e.g., car as tool, car as status symbol).

By using a matrix, the above revealed categories were further linked to each other using qualitative research software (NVivo, http://www.qsrinternational.com/). Thus, we identified commonalities and differences between the sub-categories. In a next interpretation step, the following four car experience types were extracted based on these first analysis steps (due to the limited space the types are only listed and can be discussed in the workshop):

Type 1: Car as Tool

Type 2: Car as Fascination Object

Type 3: Car for Self-Appreciation

Type 4: Car as Frustration Object

As a next step we translated these car experience types into car experience characters. These car experience characters, inspired by the personas technique, should represent a design tool for informing the experience-centered design process, i.e. support designers in a better (and "experience-adequate") design thinking for users. An example of such an experience character based on the experience type 2 (*i.e., Experience Character: Mary – Car Fascinated*) is provided below (see page 4). The description includes a short description of how the car is perceived by such a car driver, what attributes are used to describe her car and what relevant UX related aspects and system characteristics can be identified.

Conclusions and Input for Discussion

Users' Experiences are more than just short momentary experiences. They define a person, and a designer can never be another person himself, but detailed descriptions of experiences users have with an object, system or service can strengthen designers' assumptions about experiences of future users. We are convinced that there are still several methods and techniques to be developed for enhancing the designers' experiences.

By trying to understand how people describe their experiences with their car, we could identify main attributed qualities, system characteristics, needs and motives, people's perceptions of their car. It is essential for designers to understand these different user types of experiences. When we know what people remember and recount from their experiences to others, then we can reach a richer understanding on users experiences, which can be further communicated to designers via, for instance, experience characters.

figure 2. Experience Character: Mary – Car Fascinated

Experience Character: *Mary – Car Fascinated (see figure 2)*

Main characteristics of the car experience:
Mary really loves to drive her car. Interacting with her car induces positive feelings or memories. Sometimes, Mary gets nostalgic, thinking of the good old times, as well as appreciates the (almost) uniqueness of her car. Mary often talks about her car as if it was something really special, using attributions untypical for a car, such as genial, impressive, awesome, top class, amazing, and incomparable. Mary associates mainly positive experiences with her car. Any experienced troubles with her car are not relevant and overwhelmed by the positive associations. Overall, Mary established a special relationship with her car, of which she is proud of and on which she thinks she can rely on.

Statement:
"I tried to buy another car twice, but I always decided for my favourite."

Attributes assigned to the car:
robust, snappy, smooth, melodious

General needs fulfilled by car:
Pleasure–Stimulation: Feeling that you get plenty of enjoyment and pleasure rather than feeling bored and under-stimulated by life (Sheldon, 2001).

Relation to specific User Experience aspects:
The car is mainly experienced as fascination object. Thus, UX aspects such as Aesthetics, Enjoyment, Emotions (positive emotions), or Pride are of particular importance.

Examples for perceived system characteristics:
Acoustics, Design, Robustness, Reliability

Example citations
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