Probing Technology Usage in the Rear Seat

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ABSTRACT

When researching interactive systems in the car, the space can be divided into three parts: The driver, the co-driver and the backseat area. Compared to the other spaces, the backseat area was not sufficiently addressed in HCI research and methods addressing this space are missing. This work introduces cultural probing as a promising approach for researching backseat activities and the technology usage in this space as a work in progress. We propose that probing studies can lead to design implications for interactive systems, which have the potential to influence the users' experience in the backseat and the whole car.

Keywords

Backseat area, design space, culturing probing, car.

1. INTRODUCTION

Most research related to in-car interfaces focuses on the driver and the co-driver and how to improve the space surrounding them in order to improve primary and secondary tasks. Within the car an additional area, which HCI research has not focused sufficiently on, can be identified: the rear seat. More technology targeting the rear seat area will be introduced in the next years. Nevertheless rear seat technology usage is likely to differ from technology usage in other usage contexts (e.g. the home). Therefore research needs to be conducted on how the rear seat area is used and how technology has to be designed to enhance the users' experience in the car

2. CULTURAL PROBING

To investigate the rear seat area we argue for applying the cultural probing method [1]. Traditionally probing studies contain packages that include open-ended, provocative and oblique tasks that support an engagement of participants. Our proposed probing package includes different probing materials. Above all it includes a so-called roadbook, which utilizes the metaphor of a diagrammatic book used for example in rally sports. Besides that the probing package includes pens, markers, glue, sticky notes, a

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disposable camera, postcards, stickers and a large sheet of paper for a collage (see Figure 1).

An example task is to take technology from the home, integrate it in the backseat as good as possible and document this with the disposable camera. Additionally participants receive stickers preprinted with statements (e.g. "good", "bad"), which they can apply on the area of their photo in order to clarify the message of the picture. Another task for participants is to shape the rear seat area after their own wishes. For that purpose a 420 x 594 millimeter (DIN A2) sheet of photo carton is included in the probing package. Participants are asked to create a collage showing the ideal backseat area using magazines and other materials they have at home. Additionally each probing package contains three different postcards. The cards include questions for the destination and who was present on the backside, on the front side each card has a different topic (e.g. "What do you like to do on the backseat") encouraging participants to describe experiences or paint them.



Figure 1. Probing Package.

This variety of different probing activities is expected to be beneficial for the study goals, mainly because allowing different ways of sharing experiences will prevent participants from not conducting the study. Even if one probing approach is not used, the others can deliver valuable information.

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4. REFERENCES

[1] Gaver, B., Dunne, T., and Pacenti, E. 1999. Design: Cultural probes. interactions, 6(1):21–29