

HUMAN COMPUTER INTERACTION METHODS

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[Intro to methods]

Video as Design Specs

To enhance the design process we should not only rely on written data but should consider a wide range of media. Videos suite very well to give context because it can store a lot of information in very small amount of time. In a video, you can show a work process, emotions and cultural backgrounds without the effort you have to take to write all that down.

Scope of Usage

Most of the design methods we've seen in the book of the second week (Dubberly, Hugh.2004.HowDoYouDesign.DubberlyDesignOffice.SanFrancisco), most design processes include more or less the same steps in the process. (1) Investigate the problem, (2) specifying requirements, (3) designs and prototype, and (4) evaluating the designs with the requirements. As mentioned before, video can include lots of information you can't easily put into a written documentation. Therefore, it's very useful to get more used to the problem and the context. In the text (Buur, Jacob.2010.*Ethnographic Video as Design Specs*.SPIRE Research Centre.Sønderborg), they made a workshop with people from different views to gather ideas to design an electronic system of a de-mining project in Congo. It's a good method to be very close to the users without the possibility to meet them or as preparation for meeting them.

Method Process

Preparation

First, of course, you have to gather videos. It's best practice to have videos right from the place you're designing for. In the text, they did not have videos from the actual de-mining project but they took videos from a similar program in Angola.

Videos & Discussion

They showed four videos, one each to motivate the participants, show user requirements, maintenance requirements and environmental influences. After each block of videos they made a discussion and after the third video, they started to

collect requirements and mock-up some solutions. A big plus for sure is

*Approaches have also been developed to include 'social aspects of work'
(Viller & Sommerville.2000.Ethnographically Informed Analysis for Software
Engineers.Int. J. of Human-Computer Studies vol. 53)*

Requirements Prioritization

After they defined the requirements they prioritized them into *must-have*, *should-have*, or *could-have* requirement. They used a video wall and mapped the requirements to an appropriate looping video. This made the discussion more straight forward because it wasn't necessary to explain the requirement in a detailed way as if it was written or more abstract.

Pros and Cons

Pro

- Pro

Con

- Con

Conceptual Design

According to Brenda Laurel, the author of "Design Research – Methods and Perspectives" brainstorming is not enough. It is important to share ideas and often and in an early stage. In this way, you can gather feedback as soon as possible and from all stakeholders such as users, colleagues, experts, and bosses. So, she recommends making slide presentation according to a template of here right after the brainstorming. It is a good framework to both answer or open new important questions about the design vision. Also, you can include visual cues and are forced to break it down to a short presentation. She recommends to spend only a few hours on doing this and deliver it fast. Using a template for the slides helps to deliver faster and focus on the important parts.

Scope of Usage

This method is in particular useful to validate brainstorm ideas and include stakeholders at an early stage. It helps to narrow things down.

Method Process

The template of Brenda Laurel includes following points: 1. Title Page 2. Overview 3. User Description 4. Storyboard of User Experience 5. Prototype 6. Features/Functionality 7. Justification for Design (theoretical and practical) 8. Result of user testing 9. Shortcomings of design 10. Expansion – What else is possible 11. Next steps in design process 12. summary

Pros and Cons

Bodystorming

Bodystorming is very similar to brainstorming. The difference is, that you are physically in the actual (or similar or stages) environment you are designing for. In this circumstances you can either observe users, test prototypes you make ad-hoc or validate ideas through staging "in the wild". The goal in the article "Understanding contexts by being there" (Oulasvirta, Antti/Kurvinen, Esko/Kankainen, Tomi.2003.*Understanding contexts by being there: case studies in bodystorming*.Springer-Verlag.London) is to "providing useful services without disturbing the natural flow of human activities." (Oulasvirta, Antti/Kurvinen, Esko/Kankainen, Tomi.2003). They assume, the more the environment is likely to the actual environment, the better the result will be.

Scope of Usage

As interaction design it could be used to (1) does user research, (2) validate ideas and (3) prototype.

Method Process

First of all, it is important to do preparation before you start body storm.

[Preperation]

In the article, they took ten participants (with different ages) and did three different bodystorms. In the first approach they went to the original environment, in the second they went to a very likely one and in the fourth they staged it in an office.

[After]

Pros and Cons