Task Modelling

NUMBER OF PARTICIPANTS	FACILITATORS	CATEGORY	DURATION	LEVEL OF DIFFICULTY
1–5	UX-Experts, Users, Project Members	Empathize and Test Phase	25–30min	Moderate

Description

Task Modelling is a great method that allows, the understanding of a users tasks, and the steps these users take to achieve their goals, and this allows using the method at almost all stages, mainly in define, where the previous user research can be summarized and an understanding about the user goals and the process they go through to achieve their goals, in which many design decisions could be drawn from. The other main phase that Task Modelling can be used at is the testing phase, where after designing the system to meet the users goals and an understanding about how users use this system to achieve their goals is desired, to check for mainly usability problems and optimization possibilities.

Task Modelling can also be used to evaluate an already existing solution or design, to understand the limitations or underlying design problems. From an HCI and design perspective a model provides the possibility to capture and demonstrate knowledge with a degree of abstraction of a seemingly complex problem, that allows to highlight the most critical parts while reducing the complexity of data. This level of abstraction depends on what the designer is trying to inform or test, if the goal is to test precise design indications then a low level of user actions is modelled, and if the goal is broader, then high level tasks should be the aim.

In order to model the tasks an analysis might need to be performed beforehand depending on the complexity of tasks and the goal, for really complex goals and tasks some theories like activity theory will be of help. Concurrent task trees has been selected because it provides a comprehensive graphical syntax that allows to demonstrate the intercomplex relationships and thus overcomes previous lacking models.

Materials

‣ Software

   ‣ Text editor to capture the output

   ‣ Suggested website: http://giove.cnuce.cnr.it/ctte.html

- ‣ Manual
    - ‣ Pens, Paper

Preparation

User Research, Preferably behavioural User research like, Field Studies, Contextual inquires.

Step-by-Step Instructions

1. Determine Scope

    1. Determing the user target and goal is the starting point.

2. Identify core tasks

    1. Using a top down approach list for each goal the tasks users undertake to achieve their goals and for each underlying task the tasks required to achieve it. Could also be possible to extract from ladder interview, or user observation.

3. Identify Relations between tasks

    1. Identify the relations between tasks falling on the same level, and add the relationships between the tasks.

4. Refining the Task Model

    1. During modelling, some knowledge gaps and questions will arise. Noting these and addressing them during User Research will help in improving the model greatly.

5. Extra Step: UI & Design decisions can be derived from the model

    1. A Task Tree Model can be systematically transformed into an interface or design decisions: TRANSFORMING CONCUR TASK TREES MODEL INTO AN ABSTRACT USER INTERFACE, M. Atanasova, A. Malinova

Remarks, Tips, Limitations

Most effective and best resulting Task Models are based on real behavioral data.

Its best to focus on user goals and create multiple task models for multiple goals

Limitations:

Requires some knowledge about the syntax, so showing the graph to anyone is not possible.

References

CTTE: Support for Developing and Analyzing Task Models for Interactive System Design

R.Fjeld: Task Analysis in Human-Computer Interaction-- supporting action regulation theory by simulation

Université Paul Sabatier P.Palanque :From Task Analysis and Task Modeling to Task Model Engineering

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