Usability testing for mobile device : from the observation tool to the user test.

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Related work and questions : how to observe a situation in mobility in a ecological way?

- The question of how observe a mobile situation is still alive in spite of the the numerous experiences in this domain. Nobody can assert that such or such method is the best to observe this kind of situation (Virpi Roto[1], Fröhlish[2], Jesper Kjeldskov[3])
- Many questions remain unresolved:

  Which methodologies should be used? What hardware allows to respect the ecology of the measure while optimizing the quality of the collected data? What are the conditions of optimal test? What is the contribution of a real test in the real world with regard to a test in the laboratory?

- To answer these questions, our approach is decomposed in several axes :

  - Suggest a rather non-intrusive tool,
  - Finalize a test methodology,
  - Make real-world tests in order to validate the first two points
  - Finally study - according to scenarios - the miscellaneous potential contributions of a real-world test in respect to a laboratory test.
  - Makes uses test .

Method

- Objectives of the methodological development

- Determine the type of objective measures needed. We have selected: success or failure, time, errors, number of click to resolve a situation
- Determine the subjective measures needed. The goal is to find the appropriate questions to collect the users satisfaction. We compared 3 questionnaires : SUS, WAMMI, Scapin & Bastien and 3 scales : continue, smileys and text.
- Find a process which allows non expert customers to understand easily the results

Material implementation

The first devices still quite intrusive and induce some use problems (Fig1.)

(Fig1.)

(Fig2.)

The best compromise between uses and observation, in terms of size, weight and handling (Fig2.)

We use spyware adapted for each target (Iphone, Symbian OS, windows mobile)

Results

- The indicators which we chose are validated.
- The questionnaire inspired of SUS as well as the scale in the form of text are the most adequate for these evaluations.
- However the process set up for the understanding of the results customers remains to refine

En savoir plus :

http://recherche.telecom-bretagne.eu/evidens

References

1. Virpi Roto, Antti Oulasvirta, Tuulia Haikarainen,Jaana Kuorelahti, Harri Lehmuskallio, Tuomo Nyyssönen Examining mobile phone use in the wild with quasi-experimentation HIIT

2. Peter Fröhlich, Peter Reichl, and Antitza Dantcheva. Hats off to LiLiPUT: Experiences with Lightweight Lab Equipment for Portable User Testing. Telecommunications Research Center (ftw.),

3. Jesper Kjeldskov, Connor Graham, Sonja Pedell, Frank Vetere, Steve Howard, Sandrine Balbo and Jessica Davies Evaluating the Usability of a Mobile Guide: The Influence of Location, Participants and Resources.

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