Winner of the SIGCHI Finland thesis competition 2015

Receiver: Anna Kantosalo, Aalto University, School of Science, Master’s programme in Computer Science and Engineering

Title: Usability Evaluation with Children Case Poetry Machine

The thesis studies usability evaluation methods with children in a case of a poetry machine. The combination of children and technology is interesting and topical, as new technologies are taken into use in schools. The thesis includes a thorough literature study on the usability evaluation methods with children, although some often cited articles are missing. Even so, the background section shows that the author masters the topic and is able to conceptualise the phenomenon. The structure of the thesis is clear, and the research methods and research questions are clearly stated and well argued. The usability evaluations with children have been conducted with care, and the procedures have been reported in such detail that they could be replicated. The results are well presented, and the conclusions are easy to follow.

The evaluation methods used in the thesis include also a new method, the Feedback game. This method and the well reported experiences with all the methods provide new knowledge for the HCI field. However, the novel features of the Feedback game could have been emphasised even more, and the results of the study could have been reflected more systematically on the related research. Even so, the thesis demonstrates critical and objective thinking and insightful analysis of the evaluation methods. It is a proof of excellent skills in research, qualitative analysis and self-evaluation. It gives relevant and useful information to both researchers and practitioners conducting usability evaluations with children, and helps in finding appropriate methods. The panel warmly recommends the author to publish her studies in HCI journals in addition to the already published NordiCHI poster.

The assessments of the submitted theses and the selection of the winners were done by a panel of experts, including both researchers and practitioners in the HCI field. The competition was organised by SIGCHI Finland, sponsored by Reaktor and Yota Devices, and coordinated by Sirpa Riihiaho. The members of the panel were:

- Harri Kiljander (F-Secure)
- Marianne Kinnula (University of Oulu)
- Tuomo Kujala (University of Jyväskylä)
- Laura Lappalainen (University of Vaasa)
- Esko Lehtonen (University of Helsinki)
- Michael Miettinen (Suunto)
- Hannu Nousu (Kone)
- Sirpa Riihiaho (Aalto University) (recused herself in the final phase)
- Leena Salmi (University of Turku)
- Paula Savioja (VTT Technical Research Centre of Finland)
- Teija Vainio (University of Tampere)

In the final discussions, also the following persons were present:

- Tiina Härkönen (Reaktor)
- Thomas Olsson (Tampere University of Technology, Chair of SIGCHI Finland)
- Emil Virkki (Aalto University, student representative)
Honourable mention in the SIGCHI Finland thesis competition 2015

Receiver: Angie Skazka (Mikhail Morozov), Aalto University, School of Science, Master’s programme in Computer Science and Engineering

Title: Information visualization and user experience design for cloud-based industrial alarm management

The thesis reports a design case study in which user-centred processes were applied to the design of an enterprise level alarm management system. The design case is extensive and involves a complete user-centred design process as described in standards, and the safety critical context brings extra challenge to the work. The style of reporting is original, as the presentation is extremely visual and the layout of the thesis is unorthodox. The talents of the author in telling a story of the design case are evident: the text flows naturally and the visualisations are both compelling and elaborate. On the other hand, the scientific quality of the report can be critiqued to a certain extent, as the style of reporting is more like a technical report with numerous lists, rather than an academic thesis with prompt references and sources of images. The structure of the thesis is clear, but there are no separate sections for results and discussion that are found in a typical thesis. Also the related research is very lightly reported.

The work itself is an excellent example of “design science” in which practical problem solving produces new knowledge for the HCI field. Alarm handling as the context of the work is quite complex, so it is understandable that the new visualisations still need further work. The design process is extensive and very ambitious, so the author’s own contributions should have been stated more clearly in the report – not only in the appendices. However, the used methods are valid, and the theme of visualising big data is very topical, so the thesis brings relevant information to the HCI practice.

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