From Research to Design: Challenges of Qualitative Data Representation and Interpretation in HCI

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This workshop aims to explore different ways of representing data resulting from different qualitative analysis methods and the need for establishing approaches to going from qualitative data to design and design rationale.

1. BACKGROUND

A small number of recent HCI studies reported the value of using qualitative research method thematic analysis as a tool for either evaluating existing technologies or informing the design of new ones (Güldenpfennig et al. 2012; Money et al. 2008; Pykhtina et al. 2012; Tanaka et al. 2012; Toth et al. 2012). Apart from Money et al. (2008), who formulated their findings into a thematic mind map, adapting a thematic map outlined in Braun and Clarke (2006), all the other studies reported findings through identified themes or categories, using narrative underpinned with relevant data extracts.

Applying the same method to analyse our own data, we found the proposed outcome of the analysis, the thematic map, did not provide us with a low-level design detail needed for the next step, the design of technology intervention, as the themes and sub-themes within the thematic map were too high-level and abstract. As a result, we had to amend the method and the way we represented the findings so we can infer design ideas from them.

This process brought the following questions to our attention:

- What would happen if we gave the final thematic map to a designer not involved in data gathering and analysis? Would they be able to interpret it and use it to design new technologies for families?

- What would happen if we gave our own representation of findings (a *thematic frame*) to a designer? Would they be able to interpret this or would need further clarification?
- Is there a need for establishing a framework to enable researchers to represent their findings in a way that is useful to design community?

2. CALL FOR PARTICIPATION

This half-day workshop will aim to bring together researchers and designers working in the field of HCI to explore different forms of qualitative data representation and the challenges of translating these representations into design information.

The workshop will be open to between 10 to 15 participants.

We would like to invite submissions from researchers and designers up to a maximum of one A4 page. Submissions should include explanation of the methods used for analyzing data, the decisions made when structuring the data into lists, maps, coding frames etc. and how these helped or not to infer design ideas where the approach taken was to gather design requirements through user research.

If the prototype or product (website, game, mobile app, physical product, installation etc.) was designed as a follow up to another research study or for the purpose of improving/adapting an already existing version of the product, the proposals

should include the approaches taken to translate the qualitative data from the user research study or existing product evaluation study into design requirements.

All submissions will be reviewed by the programme committee. Workshop participants will be chosen based on the quality of their submission and the relevance of their submission to the subject of the workshop.

The programme committee will aim to select a variety of research topics across different user groups to enable the workshop participants to explore the challenges of translating the insights gained through the analysis process into design requirements within different contexts.

In the first part of the workshop, the participants will do a brief presentation about the challenges they faced in their own work, followed by a short discussion facilitated by the workshop organizers about the different approaches used for representing qualitative data in HCI.

In the second part of the workshop, the participants will be working in small groups and be given a task of translating qualitative data findings into design noting down the challenges that came up in the process. At the end of the workshop, each of the groups will do a brief presentation and the organizers will facilitate a discussion around the issues of:

- understanding someone else's research findings
- linking the findings of qualitative analysis to design
- subjectivity and bias in qualitative analysis
- strategies for adapting the qualitative analysis to suit HCI
- different approaches to representing findings so they are accessible and can be used by design community

All submissions will be available in the PDF format through the workshop website. Our aim is to publish the summary of the workshop in the ACM BCS-HCI 2013 proceedings available through the ACM digital library. Hoped for outcome: a special issue of the interdisciplinary journal of Human-Computer Interaction, *Interacting With Computers (IwC)*.

Please notice that at least one author of each accepted paper must **register for the workshop.**

Submissions should be in BCS eWiC format (not exceeding 1 A4 page) and should be emailed as a PDF file to the workshop organizers:

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An eWiC template is available on:

http://ewic.bcs.org/category/15364

Important Dates :

- Submission deadline: **June 28, 2013**
- Camera-ready versions of accepted papers: **August 9, 2013**
- Workshop will take place: **September 9, 2013**

3. WORKSHOP ORGANIZERS

Nela Brown is a PhD candidate in the School of Electronic Engineering and Computer Science at Queen Mary, University of London and a member of the Cognitive Science Research Group. The focus of her PhD is investigating family dynamics and the use of technology in families with primary school children combining survey methods from the fields of HCI and Design, and evaluating the use of thematic analysis, a method of qualitative analysis used in social sciences, for systematically identifying and describing features of the qualitative data and informing the design of new family technologies.

Dr Tony Stockman is a Senior Lecturer in the School of Electronic Engineering and Computer Science at Queen Mary, University of London. His research interests are in Human-Computer Interaction, Assistive Technology and the use of sound in the interface. He is President of the International Community for Auditory Display (ICAD), and has published over 60 peer reviewed papers on usability, Interaction Design and the design and evaluation of auditory displays.

4. PROGRAMME COMMITTEE

- Nela Brown, QMUL
- Tony Stockman, QMUL
- Huayi Huang, QMUL
- Oussama Metatla, QMUL
- Dave Meckin, QMUL
- Keir Williams, QMUL
- Julian Hough, QMUL

5. ACKNOWLEDGEMENTS

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