
Documenting Design Research Processes

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Abstract

The aim of the workshop is to examine and discuss how design research processes can be documented, and what the implications, potentials, and limitations of different approaches to, and types of, documentation. Participation in the workshop requires participants to actively document a design research process, and the resulting documentation material will serve as the empirical data for discussions during the workshop.

Author Keywords

Design documentation; Research through Design; Design processes; design research.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

There is a mounting interest in the DIS community in the interplay between knowledge development and ways of capturing and representing design events and products from design projects. Among others, Höök and colleagues [7] express the need to develop the understanding and practice of documentation in order to advance the field of interaction design research, stating that design researchers must “develop both better ways of capturing the specificity and richness of

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Participants and selection criteria

Maximum number of participants: 25. Participants will be selected on the basis of the process documentation proposals (1-4 pages) described in the How to Participate section.

Duration

1 full day.

Announcement and recruitment

The workshop will be announced on a dedicated website providing a more thorough description potential tools for documenting design processes, and on newsgroups and mailing lists (CHI Announcements, PhD Design List, etc.). Furthermore, the organisers, who have extensive networks in the DIS community, will actively recruit participants.

Required Facilities

The workshop requires no special facilities beyond a standard room for joint work, and adjacent facilities for break-out groups.

design processes beyond anecdotal evidence, and better formats for communicating, contesting, and developing this knowledge in academic fora" [8]. This echoes Binder & Brandt's call for design researchers to be more clearly document and present the *genealogy* of design research projects [1] in order for evaluated in our research community.

Documentation in design research projects can serve many purposes, both in terms of design activities (e.g. by serving as a joint repository of design concepts and sources of inspiration for a team of designers), research activities (e.g. by providing empirical data for analysis), and auxiliary activities (e.g. by helping a team of design researchers communicate with external partners or convince funding bodies). From a design research perspective, the establishment of reliable and structured ways of capturing and documenting the data generated by the research is therefore a central concern.

In this workshop, we will therefore examine central themes in design research documentation on the basis of the participants' hands-on experiences. The goal of the workshop is to advance both the theoretical and practical understanding of design process documentation, and to share and discuss strategies for and findings from doing so. In doing so, the workshop will explore how different tools and techniques can support this process, and what types of insight this can lead to. During the workshop, we therefore will share accounts of how we have documented design processes and discuss how the work of documenting and analyzing design can serve as a catalyst for new knowledge.

Related work

A number of recent contributions to interaction design have addressed aspects of interest to this workshop regarding the interplay between knowledge development and ways of capturing and representing design events and products.

Gaver [6] has examined design *workbooks*, which are "collections of design proposals and other materials drawn together during projects to investigate options for design" (5:1551), highlighting their potential to support design exploration: "everything in a design workbook should be addressed as a proposal: that is, as indicating a direction and course of action for design." [5:1559-1560].

In terms of documenting and representing design so that it can be evaluated as academic knowledge contributions, Jarvis, Cameron & Boucher present *annotated portfolios* [9]. Annotated portfolios draw out and present knowledge research insights by "organising what can be learned from design in terms of annotations which formulate and highlight features of interest in a portfolio [...] Annotations are characterised as indexically connected to artefacts, while connoting topics of broader interest" [8:76]. This is akin to the recent introduction of *pictorials* as a novel format at DIS.

Dalsgaard, Halskov & Nielsen have proposed a series of *maps for design reflection* [33] to support the analysis and communication of crucial aspects of design projects, ranging from overarching trends in a design project to focused examinations of how a design concept emerges and is transformed through various representations and manifestations. Subsequently,

Workshop Format

We propose a highly participatory workshop with short and concise presentations and several group work sessions.

We will begin with short cycles of case/methods presentation (10-15 minutes each), focusing on insights and findings from the obligatory documentation of a design process, followed by joint discussions in which we identify and articulate key themes, challenges, and potentials for design documentation and reflection. After this, a rapid explorative design exercise, in which groups of participants develop a concept for a documentation tool or system based on the discussions.

We will with a dialogue on how to establish a community around the topic of design documentation and reflection. We intend to use the workshop as a platform for editing a special issue on documenting design research processes.

Dalsgaard & Halskov have presented the *Project Reflection Tool* [4] as a collaborative system for documenting events and reflections on ongoing design projects.

Key Themes of the Workshop

These approaches in related work each address different aspects of design research documentation, but each aiming at a specific part of the overall challenge of design research documentation. We hope to move towards a more holistic understanding, and we therefore propose to examine the following themes at the workshop. We suggest that prospective participants relate their work to at least one of these.

The medium of documentation. Design research documentation typically requires the aggregation of different types of documents (e.g., images, text, video/animation), and often aggregated, disaggregated, and re-aggregated for different purposes (e.g., to support design ideation, to pitch a direction to a client, to trace the emerging rationale of a project). How does the choice of medium influence the development of knowledge and/or drive the design process forward?

The performativity of documentation. Design research documentation does not merely describe what happens, but it constitutes a form of action—note for example that Gaver's workbooks are made up of "proposals" and not "representations." What does the documentation do, or help the involved designers and/or researchers, accomplish?

Support for both research and design. Documentation holds the potential for supporting both design and

research, but these two activities can often appear to be conflicting, as the particularity of design seems to be in fundamental conflict with the generalizing impulses of research. How can documentation support both research and design agendas?

Following the accounts of practical issues of design documentation from participants' work, we aim at developing a richer understanding of what role documentation can play in both design research and design practice through these themes, plus those that participants may bring forward. Through these discussions, we will examine how design researchers can plan and carry out design documentation, which types of research insights can it lead to, and how they can incorporate documentation into their work so it can inform ongoing projects as well as serve as repositories of knowledge for use in future projects?

How To Participate

The workshop is unconventional in that participants must commit to capturing and documenting a design process for a period in time in order to participate. This documentation forms the basis for the presentations during the workshop and grounds the subsequent discussions. In order to participate, interested parties must therefore do the following:

- 1) Submit a proposal (2-4 pages SIGCHI Extended Abstracts Format) to describing the design process be documented, the project or institutional/organizational frame (e.g. at which institution or company is it carried out and what partners are involved), the focus of the documentation (for instance, how design concepts arise and are manifested through the project, how collaboration unfolds, how sources of inspiration inform

Organizers



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the design process), and the tools and strategy for documenting the project.

2) Participants must then document the design process as outlined in their proposals. This work forms the empirical data for the workshop.

Please send proposals via email on or before 10 April to dalsgaard@cavi.au.dk. The workshop organisers have experience in employing a variety of systems and methods for documenting design and research processes, including custom-built systems such as the Project Reflection Tool [4] as well as other analogue or digital means (e.g., Word). We will provide examples on the Workshop website to inspire participants.

Organizers

Peter Dalsgaard is an Associate Professor at Aarhus University. His work focuses creativity and innovation in interaction design, combining experimental interaction design projects and theoretical developments aimed at improving the understanding of design processes.

Kim Halskov is a Professor in Interaction Design at Aarhus University, Denmark, where he is also the Director of CAVI (www.cavi.au.dk) as well as the Co-Director of the Centre for Participatory IT (www.pit.au.dk). His research focuses on design processes, participatory design, research through design, and creativity in design processes.

Jeffrey Bardzell is an Associate Professor at Indiana University School of Informatics and Computing. He is known for his work on interaction criticism and aesthetic interaction, developed in and through a humanistic approach to HCI.

Shaowen Bardzell is Associate Professor of Informatics and Computing at Indiana University. Her research explores the contributions of design,

feminism, and social science to support technology's role in social change.

Andrés Lucero is an Associate Professor of interaction design at the University of Southern Denmark in Kolding. His interests lie in the areas of mobile human-computer interaction (HCI), co-design, and design research. He has recently co-organized successful workshops at CHI '15, MobileHCI '15, and CSCW '16.

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