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# Let's Get Divorced: Constructing Knowledge Outcomes for Critical Design and Constructive Design Research

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**Abstract**

In this day-long workshop, we seek to examine exemplar CDR and CD case studies in order to develop methods for describing, evaluating, replicating, and making use of knowledge outcomes from these complementary forms of design research. This document is the workshop description, which contains the schedule and description of activities, intended audience and recruitment strategy, request for facilities, intended outcomes and their significance, and plan for dissemination of the results. We conclude with the organizers' bios.

**Keywords**

Constructive design research, research through design, critical design, speculative design, design fictions.

**ACM Classification Keywords**

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

**Schedule and Description of Activities**

Over the last two decades, constructive design research (CDR) has become an accepted mode of scholarly

inquiry within the design research community. It has been described as having three distinct genres: lab, field, and showroom. The lab and field genres typically take a pragmatic stance, while research done following the showroom approach (more commonly known as critical design (CD), speculative design, or design fictions) offers a polemic and sometimes also a critique of the current state embodied in an artifact.

There is an internal conflict within the design research community over the evaluation of pragmatic constructive design research (CDR) that focuses on articulating a preferred or possible future and critical/speculative design (CD) that focuses on designs that generate discussion and reflection on the present or likely future. The goal of this one-day workshop is to gather those practicing CD and CDR and explicitly differentiate these two types of design research with the hopes of developing evaluation criteria, reducing the internal conflict among design researchers.

#### *Schedule*

We will start the workshop by providing a brief history of each approach, focusing on aspects of key projects. We will articulate the knowledge outcomes from each approach, then move to case studies presented by attendees. For each case study, we will draw out comparative and descriptive criteria, such as the duration of the project, the number and roles of researchers who participated, how the project was funded, what methods were used, how knowledge was captured and disseminated, and what aspects make this an exemplary case. We will then compare and contrast cases by placing them on a continuum from pragmatic to critical.

8:30-9:00am

Arrival and conversation

9:00-9:30am

A brief history of CD and CDR (organizers)  
Overview of case studies

9:30-11:00am

Presentation of case studies (9)

11:00-11:30am

Coffee break and conversation

11:30am-12:30pm

Presentation of case studies (6)

12:30-2:00pm

Lunch

2:00-2:30pm

Presentation of case studies (2)

2:00-2:30pm

Elicit evaluation criteria

2:30-3:30pm

Small groups evaluate cases with criteria

3:30-4:00pm

Break and conversation

4:00-5:00pm

Convene as large group; discuss knowledge outcomes; place case studies on continuum. Assign next steps.

### **Intended Audience and Recruitment Strategies**

Our workshop is targeted at anyone doing design research, whether pragmatic or critical. In particular, we are seeking attendees who have a case study they can work with during the workshop, with the goal of producing academic knowledge as an output. We will recruit through the SIG CHI mailing list, and through design research organizations in Asia, Europe, the Nordic Countries, and the Americas.

### **Request for Facilities**

We request a workshop room with round tables, a projector, and a large wall where we can post large sheets of paper, and create post-it notes and do some affinity diagramming. We request some large butcher or white paper. We will supply our own post-it notes and sharpies.

### **Intended Outcomes and Dissemination Plan**

Our final agenda item in the workshop will be to generate a to-do list to carry the outcomes forward and to publish the work. We plan to 1) create a web site to post the case studies and capture the outcomes of the work; 2) write a Medium article with first impressions of our work, and 3) write a longer journal paper to formalize the knowledge developed during the day. We think that we might even generate enough material to form the basis of a book.

### **About the Organizers**

*Jodi Forlizzi*

Jodi Forlizzi is a Professor of Human-Computer Interaction in the School of Computer Science at Carnegie Mellon University and a Co-founder of Pratter.us, a healthcare startup. She designs and researches systems ranging from peripheral displays to

social and assistive robots. Her current research interests include designing educational games that are engaging and effective, designing services that adapt to people's needs, and designing for healthcare. s

*John Zimmerman*

John Zimmerman is a Professor of Human-Computer Interaction in the School of Computer Science at Carnegie Mellon University. He teaches courses on interaction design, service design, HCI, and innovation. His research investigates four areas: (i) interaction with intelligent systems, (ii) service innovation, (iii) crossing the digital-physical divide, and (iv) research through design as a scholarly approach to inquiry.

*Ilpo Koskinen*

Ilpo Koskinen has been working as a professor in industrial design since 1999 mostly in Helsinki, but also in Denmark, Australia, and Hong Kong. His main research interests have been mobile multimedia, design in cities, and the methodology of design research. His recent work expands his earlier work on constructive design research into social design. His mission is to expand design by making research that communicates to designers.

*Paul Hekkert*

Paul Hekkert is full Professor of Form Theory at Delft University of Technology. Paul conducts research on the ways products impact human experience and behavior, and leads the international project UMA (Unified Model of Aesthetics). He is co-editor of *Product experience* (2008) and published *Vision in Design: A guidebook for innovators* (2011), a book that describes an approach to design and innovation. Paul is co-founder and chairman of the Design and Emotion society and captain of science of the Dutch Top Sector for the Creative Industries.

The call for participation is on the next page.

**Call for Participation (250 words)**

Over the last two decades, constructive design research (CDR) has become an accepted mode of scholarly inquiry within the design research community. It has been described as having three distinct genres: lab, field, and showroom. The lab and field genres typically take a pragmatic stance, while research done following the showroom approach (more commonly known as critical design (CD), speculative design, or design fictions) offers a polemic and sometimes also a critique of the current state embodied in an artifact.

Recently, we have observed a growing conflict within the design research community between pragmatic and critical researchers. We called for a divorce between CD and pragmatic CDR. In this day-long workshop, we seek to look at example CDR and CD case studies, to

develop methods for describing, evaluating, replicating, and making use of knowledge outcomes from these complementary forms of design research.

In this workshop, we hope to convene a variety of design researchers who have a case study of academic design research. We will collectively rectify the conflict between pragmatic and critical design research by presenting and exploring case studies, highlighting similarities and differences, and drawing out knowledge outcomes from the work.

Our workshop is targeted at anyone doing design research, whether pragmatic or critical. In particular, we are seeking attendees who have a case study they can work with during the workshop, with the goal of producing academic knowledge as an output.