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# Doing Things with Research through Design: With What, Whom, and Towards What Ends?

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## ABSTRACT

This workshop provides a venue within CHI for research through design (RtD) practitioners to present their work and discuss how, with whom, and why it is used. Building on the success of prior RtD and design research workshops at CHI, this workshop will focus on how RtD artifacts are used, with the goal of connecting diverse works with broader methodologies in HCI and Design.

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## CCS CONCEPTS

- **Human-centered computing** → **Human computer interaction (HCI)**.

## KEYWORDS

Research through design, objects, material, design things, physical rhetoric, practice-based design

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## INTRODUCTION

While still growing, design research has become an established mode of research within the HCI community. Within Design Research and HCI, Research through Design (RtD) has emerged as a key approach that involves practicing design and producing artifacts as a way of generating knowledge [1, 6, 7, 18]. However, there is a danger of assuming a canonical form of RtD research in which well-finished artefacts are produced for field tests (e.g. [4, 8, 13, 14]), as such studies are maximally legible to the broader fields of HCI and Design Research. Design supports much wider forms of inquiry, however. Final RtD outcomes might be improvised, incomplete, indicative, or only exist in proposal form. Projects might proceed without empirical user studies or human-centered perspectives [5, 16, 17]. Learning comes through making as well as final products [3, 9]. At other times, RtD research synthesizes various disciplinary perspectives, such as human-centered, scientific approaches, engineering, and critical approaches with design practice [15]. The purpose of this workshop is to explore, critique and (ideally) celebrate the full range of practices we might identify as RtD. As a way to discuss and reflect upon the various methods, forms, and processes employed in RtD and how they relate to the broader fields of HCI, Design, and Design Research, this workshop gathers researchers and practitioners whose work involves practicing design as a way of generating knowledge. This research is structured around three key methodological issues related to what we do with the objects and outcomes of RtD processes:

- **RtD with and without users and participants:** With whom do we engage and not engage, and how? For what reasons?
- **RtD with finished and unfinished forms:** With what degree of finish and development do we create, distribute, and present RtD work? What motivates these choices?

- **RtD with different forms and materials:** In what ways and for what reasons do we employ or not employ text, image, object, video, environment, performance, exhibition, demonstration, etc.?

Previous RtD CHI workshops [12] have successfully focused on artifacts themselves and their material qualities [11], the process of their creation and diversity of their forms [10], and artistic and experimental approaches to RtD [2]. This workshop builds on the success and outcomes of these prior workshops in two ways. First, this workshop focuses on how RtD artifacts are used and engage, and by whom. Second, this workshop explicitly works to connect the diversity of uses and engagements with RtD artifacts to HCI/RtD methodology more broadly.

## ORGANIZERS

*Kristina Andersen* designs objects and experiences to explore ideas and notions of the unknown. The process is aimed at allowing a broad range of knowledge to materialize as work about technology, rather than of technology. She is an assistant professor of Industrial Design in the Future Everyday group at TU Eindhoven. She has been a workshop co-organiser for CHI 2015, 2016, 2017, and 2018, addressing instrument design and objects as outcomes of design processes.

*Andy Boucher* is a designer and maker, who has developed a practice-based approach to research that is focused on the production of interactive devices and design-led methodologies for user-studies. He is the co-director of the Interaction Research Studio at Goldsmiths, University of London whose current work surrounds the volume production of research devices and design of open-devices for construction by non-experts.

*David Chatting* is a designer who works closely with new technologies to find alternative, often critical, narratives. He is a PhD candidate at the Goldsmiths' Interaction Research Studio, looking at home network as a site for design intervention. His work frequently uses complex combinations of electronics, software and speculative practice. David was one of the primary organizers of the CHI 2017 workshop on *Making Home*, he has been a regular workshop participant in recent years.

*Audrey Desjardins* is an assistant professor of Interaction Design in the school of Art + Art History + Design at the University of Washington. Trained as an industrial designer and interaction design researcher, she uses design as a way to critically reflect on people's creative tactics to make, adapt, and transform their homes and to investigate potential futures in domestic spaces.

*Laura Devendorf* designs, develops and studies technologies that destabilize practice in order to prompt creative, thoughtful, and attentive engagements with the everyday. She is an assistant professor of Information Science and an ATLAS Institute fellow at the University of Colorado, Boulder where she directs the Unstable Design Lab.

*William Gaver* is Professor of Design and co-leader of the Interaction Research Studio at Goldsmiths, University of London. With the studio, he develops unconventional research products for everyday settings as well as design-led methodologies and concepts.

*Tom Jenkins* is a PhD candidate in the Digital Media program in the School of Literature, Media, and Communication at the Georgia Institute of Technology. He focuses on the use of research through design methods to produce speculative Internet of Things for domestic settings, particularly cohousing communities.

*William Odom* is an Assistant Professor in the School of Interactive Arts and Technology at Simon Fraser University. He focuses on developing a theory and practice of slow interaction design and generating methods to investigate potential technological futures.

*James Pierce* is Assistant Professor of Design at the California College of the Arts and Research Engineer at CITRIS, University of California Berkeley. He practices design as a mode of inquiry, critical engagement, and speculative exploration.

*Anna Vallgård* is an associate professor and head of the IxD lab at ITU Copenhagen. She is exploring interaction design as a formgiving process and working to develop our basic understanding of the physical form, temporal form, and interaction gestalt in the context of interaction design. Recently, she has also embarked on projects aimed at designing for hedonistic experiences in one case working to give elderly people superpowers through their welfare technologies.

## WEBSITE

The workshop website will be used to distribute submissions, and the authors will continue to maintain the website after the workshop. Participants are invited to submit work in a variety of digital formats: video, audio, image, text, website, application.

Website: [thingsofdesign.info](http://thingsofdesign.info)

## PRE-WORKSHOP PLANS

The CHI community will be invited to submit short written descriptions of their work. However, documentation of RtD processes and physical outcomes will be emphasized above written research results. The selection criteria in the CFP will be: Proposed work [2] must involve design processes and products, [1] must be created and used within a research framework or with research goals, and [3] the authors must speak to the uses, goals, and outcomes of the work and how their RtD process and methods supported these goals.

This written portion of the submission will be a short 1-4 page submission formatted using the ACM CHI 2016 extended abstracts format template.

We will create a website to advertise the workshop, communicate to accepted participants, and help disseminate the work pre- and post-workshop. Workshop papers will be submitted through

<b>Time</b>	<b>Activity</b>
9-9:30AM	Welcome and introductions by organizers; overview of workshop
9:30-11AM	90-minute studio style critiques and discussion of participants' RtD artifacts (1st 1/2 of participants)
11-11:30AM	Group discussion
11:30AM-1PM	Lunch (off site)
1-2:30PM	90-minute studio style critiques and discussion of participants' RtD artifacts (2nd 1/2 of participants)
2:30-3PM	Document artifacts and activities for website
3-3:30PM	Coffee break
3:30-4:30PM	Breakout discussion for themes identified by organizers and participants
4:30-5:30PM	Discussion moderated by organizers directed toward unpacking key methodological questions motivating the workshop

the website and then reviewed by organizers. An Instagram account will be set up giving us a low maintenance channel to build an audience before, during and after the workshop - both inside and outside the CHI community. We welcome diverse documentation and exhibition format including but most certainly not limited to image, text, website, application, video, audio, performance, code, and instructions.

### **WORKSHOP STRUCTURE**

This one-day workshop will be held on site at the conference. The workshop will take the form of a gathering of RtD researchers and the works they create. The discussions will be focused on how the artifacts/outcomes of RtD are used, the knowledge they generate/develop/etc., and the particular aims of the design research inquiry. The format of the day takes form of a studio style critique and discussion group where the participants work together to position their own and each others' research things into a broader framework of RtD things.

### **POST-WORKSHOP PLAN**

During the workshop the organizers will carefully document the activities and exhibits. Immediately following the workshop, the organizers will update the workshop website so it can serve as an archive and repository for RtD methods and outcomes. This resource can then serve as an archive both for researchers and educators when teaching RtD methods in the classroom.

The organizers will also explore the possibilities of a special issue of a journal, such as TOCHI, based on the workshop goals and themes. Building on the success of prior CHI RtD workshops and interactions articles, the organizers feel there is an opportunity for a special issue on the topic of RtD methods and outcomes in HCI.

### **CALL FOR PARTICIPATION**

Design research is a growing mode of research within the HCI community. However, there is a danger of assuming a canonical form of RtD research in which well-finished artefacts are produced for field tests. As a way to discuss and reflect upon the various methods, forms, and processes employed in RtD and how they relate to the broader fields of HCI, Design, and Design Research, this workshop gathers researchers and practitioners whose work involves practicing design as a way of generating knowledge.

This one-day workshop will provide an opportunity to present a variety of mixed-methods approaches to practicing RtD, with the intention of expanding forms and practices of RtD and its relationship to broader HCI methods. THOSE APPROACHES MIGHT INCLUDE, BUT ARE NOT LIMITED TO:

- Participatory RtD: Reflecting on who we work with, who we don't, and thinking through relations and impacts
- RtD without conventional users: Practicing RtD without users (e.g., autobiographical design, design fictions)
- Empirical RtD: Using quantitative, qualitative, and other empirical methods (usability, eye-tracking, surveys) to assess or disseminate RtD processes and outcomes
- Conceptual RtD: RtD as a way of developing and communicating ideas
- Speculative RtD: RtD as a way of exploring possible futures and imaging alternatives
- Finished and unfinished RtD forms: Designing the degree of finish and development with which we create, distribute, and present RtD finalized artifacts, in-progress, working forms and prototypes
- RtD with singular or multiple forms: textual design, video scenarios, performances, lab studies, living labs, prototype deployments, etc.
- RtD in new contexts: Applying RtD in new contexts, such as the smart home, civic life and public policy, or emerging technologies, such as biotech.

This workshop will combine hands-on examination of design objects, comparison of design experiences, and discussion about the underlying methods, forms, goals, and disciplinary perspectives.

Interested participants are invited to submit examples of their work to bring to this workshop. This should include:

- A position paper in CHI archival format (1-4 pages) describing the research object under consideration
- Digital documentation, such as photos, video, or any other type of digital documentation.

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