
The Things of Design Research: Diversity in Objects and Outcomes

Tom Jenkins

Georgia Institute of Technology
Atlanta, Georgia, USA
tom.jenkins@gatech.edu

Kristina Andersen

STEIM
Amsterdam, Netherlands
kristina@steim.nl

Bill Gaver

Interaction Research Studio,
Goldsmiths, University of London
w.gaver@gold.ac.uk

William Odom

Simon Fraser University
Surrey, British Columbia, Canada
wodom@sfu.ca

James Pierce

HCI Institute
Carnegie Mellon University
Pittsburgh, Pennsylvania, USA
jppierce@cs.cmu.edu

Anna Vallgård

IxD lab
IT University of Copenhagen
Copenhagen, Denmark
akav@itu.dk

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Abstract

The goal for this workshop is to further experiment with a venue at CHI for practitioners of research through design to share their work with each other. This workshop, following a successful workshop in CHI 2016, will be centered upon a discussion of objects produced through a research through design process. Bringing together researchers as well as their physical work serves to gain insight into the practices and outcomes of research through design. If research through design is to continue to develop as a research practice for generating knowledge within HCI, this requires developing ways of attending to its made—material outcomes. The premise of this workshop is simple: We need additional social spaces and platforms for interacting with and reflecting upon material design outcomes at CHI. The goal of this workshop is to keep experimenting with such a space, with an emphasis on how prototyping and making in a research through design context produces design things.

Author Keywords

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

ACM Classification Keywords

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

Background

This workshop seeks to build off a successful workshop at CHI 2016 based on the idea that *if we want to talk, think, and do research through design, and to build a community of designers doing research with and through designed objects, we need more **things** at CHI* [16]. These “things” are the material outcomes of research through design.

Research through design (RtD) is an increasingly-common form of research in Human-Computer Interaction that is characterized by structured activities of making coupled with rigorous documentation, reflection, and analysis [5,10,11,23]. These modes of inquiry provide empirical, practical, and theoretical insights through the generative practice of design that inform both design domains (such as homes, older people, music making, and more) as well as design itself. These insights can be used to articulate the qualities of designed things, experiences of use, new spaces for design inquiry and exploration, as well as previously unexplored avenues for praxis [4,8,12,18,22].

A key idea we want to propose and explore is that the objects that research through design generates—the things of research through design—are new kinds of *design things* [2]. Design things enact multiple roles in the context of the process of design; they are messy, and support many different values and viewpoints. The design thing “aligns humans and nonhuman resources into to move the object of design forward, to support the emergence, translation, and performance” of the design object through “participation, intervention, and performance in [a] sociotechnical thing” [7].

These design artifacts function as exemplars, proofs of concept, or material arguments, but also as performances of imagined states: many research through design projects deploy these artifacts with users to understand their experiences of interacting with and interpreting the projects in reflexive ways [3,19,20]. This idea has been called “Rehearsing the future,” and can speak to the provisional, incomplete, and partiality of design things at various stages of completeness [14]. This is reflected in the broad range of what can count as design thing. The process of documentation (and the documentation of process) often takes the form of design notebooks [5,10], strong conceptual insights into design processes [15], and reflection on provocative hardware prototypes [1,4,6,9,13,17,21].

These design things produce, constitute, or perform knowledge via their dissemination and use. In order to better understand and perform this kind of research in the CHI community, it is important to attend to the material components of RtD in addition to the scholarly documentation produced after the fact. We also need space to present, interact with, and reflect upon material design outcomes. The goal of this workshop is to keep experimenting with this kind of space, this time emphasizing the qualities of research through design objects as constituting design things.

The workshop will be conducted as an investigation of designed objects. It will not only consider the form and function of designed objects, but more importantly their processes, meanings, concepts, insights, and experiences. We also hope to experiment with modes of presenting of designed things. Instead of relying on slides and presentations, we hope to foster an

environment where design things can be presented and discussed on their own terms.

Organizers

Kristina Andersen is based at STEIM (Studio for Electro-Instrumental Music) in Amsterdam. She works with electronics and reclaimed materials to create unusual objects, experiences and workshops. Her work is increasingly concerned with how we can allow each other to imagine our possible technological futures through the making of exploratory objects. She is principal researcher on GiantSteps, funded by the European Union through the 7th Framework. She is a member of the e-culture committee at Creative Industries Fund NL, and works as expert reviewer in various EU contexts. She teaches the combined MA between STEIM and Sonology in Den Haag NL as well as maintaining her own practice.

Bill Gaver is Professor of Design and leads the Interaction Research Studio at Goldsmiths, University of London. His research on design-led methodologies and innovative technologies for everyday life led him to develop an internationally renowned studio bringing the skills of designers together with expertise in ubiquitous computing and sociology. With the Studio, he has developed approaches to design ranging from Cultural Probes to the use of documentary film to help assess peoples' experience with designs, pursued conceptual work on topics such as ambiguity and interpretation, and produced highly-finished prototypes that have been deployed for long-term field trials and exhibited internationally at venues such as the V&A Museum, Tate Britain, and New York's MOMA. He has published over 70 articles (h-index of 36) and is an elected member of the CHI Academy. He currently holds an

ERC Advanced Investigator Grant and is principle investigator of a joint project with Sociology the co-construction of communities and environmental devices.

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 is interested in how designed objects operate as parts of different ecosystems. His dissertation work focuses on the use of research through design methods to produce speculative Internet of Things for domestic settings, particularly cohousing communities.

Will Odom is an Assistant Professor in the School of Interactive Arts and Technology at Simon Fraser University. His research there focuses on developing a theory and practice of slow interaction design and generating methods to investigate potential technological futures. He holds a Ph.D. in HCI from Carnegie Mellon University and was a Fulbright Scholar in Design Futures at Griffith University in Brisbane, Australia.

James Pierce is a lecturer in the Jacobs Institute for Design innovation at UC Berkeley. He has longstanding research interests in speculative design, design theory, and everyday social practices. His more recent research interests include state surveillance, digital disconnectivity, and ghosts. James has a PhD from Carnegie Mellon University.

Anna Vallgård works as an Associate Professor and Head of the IxD lab at the IT University of Copenhagen. Her research is focused on developing Interaction Design as a material practice. She understands the

computer as a material for design and experiments with it as such with the aim of creating new material expressions for computational things. Through this practice she also seeks to deepen our understanding of the trinity of forms in Interaction Design: the physical form, the temporal form, and the interaction gestalt.

Website

The workshop website will be used as a repository for the workshop submissions. Participants will be invited to submit a proposal in a variety of digital formats: video, audio, image, text, website, or application. (Additional information about the website is discussed below). Website: <http://thingsofdesign.info>

Pre-Workshop Plans

We will invite the CHI community to submit a short written description and documentation of a design artifact they intended to bring and discuss further at our workshop. This written portion consists of a short, 1-4 page submission formatted using the ACM CHI 2017 extended abstracts format template that responds to our overarching goal to talk, think, and do research through design, and to build a community of designers doing research with and through designed objects at CHI. We will consider a submissions covering a wide range of topics, but united in their primary mode of inquiry centers on the making and crafting of interaction design research artifacts. We will develop a website to advertise the workshop and communicate information about it. Workshop papers will be submitted via our website and then reviewed by organizers. Additionally, participants will be invited to submit complementary material in other formats, such as video, audio, image, text, website, or application.

Workshop structure

The one-day workshop will be held on-site at CHI 2017.

Time	Activity
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 (1 st 1/3 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 (2 nd 1/3 of participants)
2:30-3pm	Group discussion
3-3:30pm	Coffee break
3:30-4:30pm	90-minute studio-style critiques and discussion of participants' RtD artifacts (3 rd 1/3 of participants)
4:30-5:30pm	Open reflection / discussion moderated by organizers aimed at critically mapping issues, complications and opportunities for future artifact-oriented research at CHI

We intend for our studio-style workshop structure to differ from a more traditional “mini-conference” workshop framing. Our submission format is intended to encourage authors to engage in studio-based critique.

Post-workshop Plans

After the workshop, we will encourage participants to continue to share their experiences regarding the implementation of insights and concepts developed in the workshop, with an eye toward how a stronger culture of artifact-oriented design research at CHI could be nurtured. On the workshop website, we will document and archive each of the design research artifacts presented as well as the ensuing discussion. The website will also provide a format for disseminating higher-level insights and concepts emerging from the workshop in the service of having a persistent web space for continuing discussion around how to nurture and expand RtD projects at CHI. We will also explore alternative forms of dissemination, such as editing and producing a booklet or zine anthology of RtD artifacts and discussions resulting from our workshop. As a broader form of dissemination, we will write an article to be submitted to ACM Interactions, which will summarize the discussion and outcomes of the workshop. This will aim to play a key role in attracting wider attention among both design-oriented HCI researchers and, importantly, HCI practitioners. Also, the organizers will make announcements on the website and through social media about other options towards producing more archival forms of artifact-oriented RtD publications.

Call for Participation

Design research is a growing mode of research within the HCI community. At the same time, the role of the artifact in generating knowledge outcomes from research through design (RtD) is ripe for examination. We hope to bring together researchers and practitioners who are interested in exploring how the things of design practice are able to contribute to academic dialogue within HCI and related design fields. By assembling various practitioners and the objects they have designed and produced together in a single room, we seek to be able to discuss the process and practices of research through design and link these closely with material outcomes.

This one-day workshop will provide an opportunity to examine how artifacts can produce and support research outcomes in themselves, and as material bridges to the process through which they emerge. This workshop will combine hands-on examination of design objects, comparison of design experiences, and discussion about qualities of these that are usually necessarily excluded from published academic texts.

Workshop Themes

Materiality – What are the material qualities of interactive and physical designed objects?

Process – What role do material objects during the design the process? In what ways can material outcomes offer insight into the design process from which they emerged?

Quality of outcomes – In what ways can we judge the quality of designed objects?

Material knowledge and physical rhetoric – What ways of understanding material outcomes as their own non-verbal or less verbal forms of knowledge or rhetoric are possible?

Insights into practice – What can a discussion of things teach us about the practice of designing, producing, and presenting them—as research or otherwise?

Interested participants are invited to submit an artifact to bring to this workshop. This should include a position paper in CHI extended abstract format (maximum 4 pages) describing the research object under consideration, and digital documentation of the artifact itself (e.g., image, video, website, software application). In addition, participants are asked to submit a brief (200 word) personal biography.

Submissions will be accepted based on quality and interest and will represent a spectrum of practices, materials, backgrounds, and concerns. Submissions may be sent via email to workshop organizers at thing@thingsofdesign.info

At least one author of each accepted position paper must register and attend the workshop. All workshop participants must register for both the workshop and for at least one day of the ACM CHI conference.

For more information, please visit <http://thingsofdesign.info>

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