
Attending to Objects as Outcomes of Design Research

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Abstract

The goal for this workshop is to provide a venue at CHI for research through design practitioners to materially share their work with each other. Conversation will largely be centered upon a discussion of objects produced through a research through design process. Bringing together researchers as well as their physical work is a means of gaining 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 spaces for interacting with and reflecting upon material design outcomes at CHI. The goal of this workshop is to experiment with such a space, and to initially do so without a strong theoretical or conceptual framing.

Author Keywords

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

ACM Classification Keywords

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

Background

Research through design (RtD) is an increasingly-common form of research in Human-Computer Interaction [4,8,21]. RtD is characterized by structured activities of making coupled with rigorous documentation, reflection, and analysis. Together these can provide empirical, practical, and theoretical insights into the practices of designing. These insights are used to articulate qualities of designed things and experiences of use, new spaces for design inquiry and exploration, and previously unexplored avenues for praxis [3,6,10,15,19].

In addition to fabricating design artifacts that function as exemplars, proofs of concept, or material arguments, many research through design projects deploy these artifacts with users to document their experiences interacting with and interpreting the projects in reflexive ways [2,16,17]. The process of documentation often take the form of design notebooks [4,8], strong conceptual insights into design processes [13], and reflection on provocative hardware prototypes [1,3,5,7,11,14].

One way of understanding how these provocative prototypes is that they 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 material outcomes of research through design as well as the documentation that is produced for scholarly consumption after the fact. The basic position motivating this workshop is that *if we want to talk, think, and do research through design, and to build a community of designers doing research with and though designed objects, we need more **things** at CHI.*

As the examples and literature of RtD continues to grow at CHI, we need additional spaces for presenting, interacting with, and reflecting upon and discussing material design outcomes. The goal of this workshop is to experiment with such a space, and to initially do so without a strong theoretical or conceptual framing.

This claim echoes Höök's "Cry for More Tech at CHI" [13]. Within Höök's argument for the need "articulate our experiences in forms other than just academic papers," we find a contemporary shift in design research toward recognizing things as research outcomes that can be presented and discussed within academic settings as academic output. This shift has been materialized in the form of several of conferences that have begun to take these kinds of things into account. Beginning in 2014, the DIS conference has included a pictorials track that serves to include representations of process as a part of the academic record. A second notable example is the emergence of the Research through Design (RTD) conference. RTD has had two meetings, beginning in 2013 as part of Praxis and Poetics conference [20]. RTD 2015 was a full event in its own right, taking place over three days at Microsoft Research Cambridge, and hosted several hundred attendees (www.researchthroughdesign.org).

The workshop will be conducted as an investigation of designed objects. This workshop will not only consider the form and function of designed objects, but more importantly their potential meanings, concepts, insights, and experiences. We will conduct discussions and conversations around existing objects as well as create new tentative models of objects that temporarily allow us to anchor the discussion in a designed thing's potential for embodied and material interaction.

Organizers

Kristina Andersen is a researcher and storyteller at STEIM (Studio for Electro-Instrumental Music) in Amsterdam. She works with electronics and reclaimed materials to create unusual objects and experiences. She holds a Cand. Arch. [wearable computers], a M.Sc [tangible objects in virtual spaces], and was a research fellow at the Interaction Design Institute Ivrea (IT). She is a Founding Research Fellow of the Research Institute in the Converging Arts & Sciences (ICAS) at the University of Greenwich. She has been a mentor at DasArts, a thematic project leader at the Piet Zwart Institute/ MA in Media Design, an honorary visiting design fellow at the University of York and she has designed and hosted countless workshops. She is mentor and senior researcher at the Patchingzone and teaches the combined MA between STEIM and Sonology in Den Haag 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 a Banting Fellow in the Everyday Design Studio at Simon Fraser University. His research there focuses on slow interaction design and methods to investigate potential technological futures. He holds a Ph.D. from Carnegie Mellon University and was a Fulbright Scholar at Griffith University in Brisbane, Australia.

James Pierce studies and designs interactive technology to understand, explore and question its role in everyday life. He is particularly concerned with how technology contributes to positive and negative forms of (dis)engagement, (over)consumption and (un)sustainability. His research combines critical approaches with designerly modes of imagination and production. He frequently uses ethnographic methods to help inform and assess the design of technology. He is currently at the Berkeley Center for New Media while he finishes his PhD at the Human-Computer Interaction Institute at 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, application. (Additional information about the website is discussed below.)

Website: <http://objectoutcomes.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 2016 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, application.

Workshop structure

The proposed one-day workshop will be held on site at the CHI 2016 conference venue.

Time	Activity
9-9:30am	Welcome and introductions by organizers; overview of workshop
9:30-11am	90-minute seminar-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 seminar-style critiques and discussion of participants' RtD artifacts (2 nd 1/3 of participants)
2:30-3pm	10-minute seminar-style critiques and discussion of participants' RtD artifacts (3 rd 1/3 of participants)
3-3:30pm	Coffee break
3:30-4:30pm	Group critique / discussion Breakout groups to discuss sub-issues in

	artifact-oriented RtD research in CHI
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 objects 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 hello@objectoutcomes.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://objectoutcomes.info>

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