



Disruptive Improvisations: Making Use of Non-Deterministic Art Practices in HCI

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Abstract

The goal of this one-day workshop is to open space for disruptive techniques and strategies to be used in the making, prototyping, and conceptualizations of the artifacts and systems developed and imagined within HCI. Specifically, this workshop draws on strategies from art, speculative design, and activism, as we aim to productively “trouble” the design processes behind HCI. We frame these explorations as “disruptive improvisations” — tactics artists and designers use to make the familiar strange or creatively problematize in order to foster new insights. The workshop invites participants to inquire through making and take up key themes as starting points to develop disruptive improvisations for design. These include modesty, scarcity, uselessness, no-technology, and failure. The workshop will produce a zine workbook or pamphlet to be distributed during the conference to bring visibility to the role these tactics of making in a creative design practices.

Author Keywords

Disruption; constraint; designerly improvisation; art-inspired prototyping; Fluxus; non-determinism; undiscovery; uselessness

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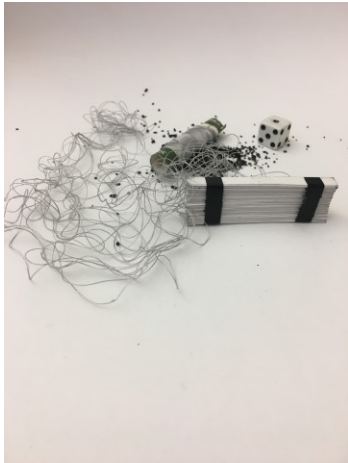


Figure 1. Fluxus mail experiment. Devendorf and Andersen

ACM Classification Keywords

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

Introduction

This one day workshop takes its starting point in what we think of as “disruptive improvisations”, a collective term for the material and procedural tactics used by artists and designers to disrupt habitual thinking, make the familiar strange or creatively problematize a brief in order to foster new critical insights [22]. These practices are informed by the open-ended, material practices of the Fluxus art movement (as well as concept, process, and performance art more broadly), and have served and can continue to serve as inspirations for designerly investigations in HCI, particularly in early exploratory phases of a process. Such preliminary and playful exercises are a central part of design practice, though are sometimes obscured behind more polished final prototypes and designs.

The last years have seen a number of CHI workshops addressing material experimentation as an under-described factor in the conceptualizing and making of technology artifacts and systems [10,11,14,20]. Our workshop builds on this work, but shifts the focus from outcomes to processes—highlighting tactics and methods for thinking, making, and building creatively and in conversation with materials. Much of this work has taken place as Research through Design (RtD), a form of research that combines making with rigorous documentation, reflection, and analysis. The growing popularity of RtD has spawned instrumental discussions and exhibitions of new forms of communicating design

knowledge [3], for example taking place at the two previous CHI workshops [10,11] and the biennial RtD conferences (<http://researchthroughdesign.org>).

We invite a broad range of CHI practitioners to join us in bringing the perspectives of non-deterministic artistic practices to an inquiry of open-ended making processes as starting points for disruptive improvisations for design. We aim to forge radical collaborations between art historical and making practices, and we welcome perspectives from both practitioners of art and HCI researchers, who may use art to inspire their practice. In this sense, we build on HCI’s turn to the arts as exemplified by ArtCHI exhibits, as well as methods such as cultural probes that emerged from similar adaptation of art into design [7].

For this workshop, we take particular inspiration from Fluxus [17,19,27] with its collections of “event scores,” instruction sets, and material prompts, offered to the audience as ways of thinking about making that exceed the specifications of a goal or a project. For instance, Brecht’s “Two Exercises” [19] suggests a seemingly pointless and detailed set of instructions for moving objects from one pile to another. As such, it is not a means to an end so much as a technique to sensitize a designer—bringing attention to the most mundane of tasks. These unlikely, unusual and disruptive acts enliven the everyday and awaken perception to new ways of thinking, feeling, and being within the world. In order to bring this perspective into our workshop, we will invite all participants to submit a “disruptive improvisation” for an unlikely creative act alongside their more formal position paper.



Figure 2. Fluxus mail experiment, before.
Devendorf and Andersen



Figure 3. Fluxus mail experiment, after.
Devendorf and Andersen

By making space at CHI for paying attention to these processes, we aim to highlight ongoing work in HCI in this vein and suggest new practical strategies for material experimentation within HCI research [1,4,14,18,20,23,24]. Taken together, our dual interests in design research and arts-inspired investigations offer a lens to think through longstanding interests in prototyping and experimentation in HCI (paper prototypes, Wizard of Oz, functional prototypes, etc.). While prototyping is often framed as a process of refinement towards a polished object, we intend to focus our attention on the value of cruder models that may never seek refinement. We see these modest forms as potential vehicles for making trouble, leading to the questioning of ideas, highlighting bias and assumptions, avoiding solutionism, and providing alternatives prior to or even unrelated to any particular formalized design project.

As such, we seek examples and analysis of material practices that explore themes of:

- **Modesty.** Producing forms that tackle a small piece of a broader issue. Employing formal modesty in terms of materials and construction, aesthetics of experimentation and openness to simplicity, partialness, and incompleteness [1,26].
- **Scarcity.** Making things quickly and/or with limited budgets/resources/materials. Using self-imposed constraints to break habits and open up perspectives [2,3].
- **Uselessness.** Designing and making things without a preoccupation with conventional functionality. Allowing objects to take on lives apart from utility or conventional functionality [6,15,16].

- **No-technology.** Exploring issues relevant to HCI, digital culture, and human-technology relationships through non- or less technological means. [26].
- **Failure.** Trying things without knowing where they'll lead. Being open to failure and reporting on failure [9,21].

To bring attention to these forms of disruptive practices beyond our workshop, we will document the tactics presented by workshop participants in the form of a zine workbook [5,8] to be produced immediately and informally distributed during the CHI2018.

Organizers

Kristina Andersen designs objects and experiences to explore ideas and notions of the unknown. A central element of her practise is workshop-like experiences that expose everyday desires as drivers for new ideas. They employ familiar, mundane materials - such as candy and cardboard - through which several planes collide: the possible, the unknown, the feared and the desired. The process is aimed at allowing a broad range of knowledge to materialise as interdisciplinary knowledge, which belongs to no one. The outcomes range from requirement engineering, technology prototyping, to the making of work *about* technology, rather than *of* technology. She works at Industrial Design at TU Eindhoven as well as maintaining her own practice. She has been a workshop organiser for CHI 2015, 2016 [10] and 2017 [11], addressing instrument design and objects as outcomes of design processes.

Laura Devendorf designs, develops and studies technologies that destabilize practice in order to prompt creative, thoughtful, and attentive engagements with the everyday. Whether questioning the role of material

experience in fabrication or studying playful engagements with body-worn displays, she uses design research to reflect on norms and demonstrate opportunities for the future. 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. She was an organizer of a 2016 workshop on interdisciplinary approaches to digital fabrication [14].

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. He has been a workshop organiser for CHI 2016 [10] and 2017 [11] with a focus on objects as the outcome of design processes.

Daniela K. Rosner investigates the social, political, and material circumstances of technology development, with an emphasis on foregrounding marginalized histories of practice, from maintenance to needlecraft. She is an Assistant Professor of Human Centered Design & Engineering at the University of Washington (UW) where she co-directs the Tactile and Tactical Design Lab (TAT Lab). She has organized several workshops at CHI and elsewhere, including CHI09 DIY

for CHI, CHI12 From Materials to Materiality [20], and CHI13 Reclaiming Repair.

Ron Wakkary investigates the changing nature of interaction design in response to everyday design and practices. His research aims to be reflective and

Timing	Activity
9.00 - 9.30	Welcome and introduction to the workshop.
9.30 - 10.30	Short introductions and sharing of design research focus by all participants.
10.30 - 11.30	Making Session 1
11.30 - 13.00	Lunch
13.00 - 14.00	Making Session 2
14.00 - 15.00	Making Session 3
15.00 - 15.30	Coffee
15.30 - 16.30	Discussion
16.30 - 17.30	Designing the pamphlet or zine
Evening	Informal debrief and dinner.

generative, creating new interaction design exemplars, concepts, and emergent practices of design that help to shape both design and its relations to technologies. He is Professor in the School of Interactive Arts and Technology, Simon Fraser University where he founded the Everyday Design Studio and Professor in Industrial Design at Eindhoven University of Technology (TU/e) and chair of the Everyday Matters group. He has been a workshop organizer for CHI 2004 [25], 2011 [12], 2012, and 2014 [13] on transdisciplinarity; HCI, politics and the city; visual thinking; and design fiction.

Website and Submissions

The call for participation is an invitation to the CHI community to submit a position paper, a short bio and

a disruptive improvisation to explore during the workshop. The position paper will be in the CHI extended abstract format (maximum 4 pages) describing a research project (past, current or future) where the aforementioned themes played a key role. Following the tradition of the Fluxus event score, the disruptive improvisation will be brief and to the point, written in the form of an instruction or recipe for a short creative act. The improvisation should aim to change perception or provide deeper reflection on the workshop themes. The website includes a number of examples to guide potential participants.

The participants are asked to submit this material with a view to be able to create a zine workbook containing the participant provided instructions for “disruptive improvisation” within the workshop day itself. This means that the main selection and design work can be done in advance by the organizers, based on participant submissions. The final work session of the workshop will be focused on designing and finalizing the zine with documentations of the experiences of the workshop, laid out in the traditional zine fashion using scissors and glue. The organizers will print and assemble the zines the following day, in order to be able to distribute during CHI 2018.

The website, **<https://disruptiveimprovisation.wordpress.com>**, will be used as a repository for the submissions before the workshop and as a documentation of the event after. After the workshop, the website also becomes the home for the ready to print PDF version of the zine as an immediate, tangible outcome of the day.

Pre-Workshop Plans

The call will be distributed widely through both official CHI channels and our own personal networks. Submitted material will be gathered and systematically reviewed by the workshop organizers. Based on this material, the organizers will design the basis of the zine workbook, while allowing for modification and change on the day of the workshop.

Workshop Structure

The day will take the form of a one-day on-site workshop, with a focus on three distinct one-hour making sessions, based on the content and strategies submitted by the participants. Depending on this material and the number of participants, it is possible to hold multiple parallel making sessions. Please see Figure 4 for more details of the proposed schedule. We will focus each making session on enacting the prompts by the participants. Each participant will introduce their prompt and discuss its emergence from and/or relationship to their design practice (as outlined in their position paper). Enacting the prompts as a group will create a space for shared reflection and engagement with each participant’s research and topics of interest.

Post-Workshop Plans

After the workshop, the completed zine workbook publication will be made available on the website, ready-to-print, while we consider the outcomes as material for a potential article in interactions magazine or a similar publication.

Call for Participation

Join our workshop for a day of “disruptive

Figure 4: Schedule for the day

improvisation” at CHI2018. As material exploration grows as a mode of inquiry within HCI community, it opens space to consider new forms of inquiry within design processes. This workshop will bring together researchers and practitioners to discuss the value of and develop tactics for non-deterministic design practices in HCI. Taking inspiration from Fluxus, we will focus on the generative capacity of simple, non-digital, lightweight, and even useless prototypes. These modest and emergent objects open spaces of contestation and speculation, giving rise to unexpected insights that may not come about through more refined practices.

This one-day workshop will create a space for people interested in design research, materiality, and arts-inspired approaches to HCI to reflect on different techniques and productive forms of material disruption within a design process. The workshop will combine hands-on experimentation, comparison of experiences, and the production of an experimental instruction zine workbook to be distributed at CHI 2018.

We invite submissions on the following themes:

Modesty. Producing forms that tackle a small piece of a broader issue. Employing formal modesty in terms of materials and construction, aesthetics of experimentation and openness to simplicity, partialness, and incompleteness. **Scarcity.** Making things quickly and/or with limited budgets/resources/materials. Using self-imposed constraints to break habits and open new perspectives. **Uselessness.** Designing and making things without a preoccupation with conventional functionality. Allowing objects to take on lives apart from utility. **No-**

technology. Exploring issues relevant to HCI, digital culture, and human-technology relationships through non- or less technological means. **Failure.** Trying things without knowing where they’ll lead. Being open to and reporting on failure.

Interested participants are invited to submit a 2-4 page position paper in CHI extended abstract format describing the following:

- a research project (past, current or future) where the aforementioned themes played a key role.
- a tactic for “disruptive improvisation” – a description of a short task that can be performed by the participants of the workshop with the goal of breaking habits, perceptions, and/or meditating on one of the workshop themes. Ideally, the tactic takes the form of an instruction set or recipe for making, and follows the spirit of Fluxus event scores.
- a brief (200 word) personal biography.

Submissions will be published in the workshop webpage (<https://disruptiveimprovisation.wordpress.com>)

During the workshop, participants will present and perform the disruptive improvisations outlined in the submissions, documenting the processes, outcomes and insights in the form of a zine that will be informally distributed during the CHI conference. Participants who prefer not to have their work published in the zine can opt-out. Further instructions about the workshop, schedule, and on the format for the “disruptive improvisation” can be found on the workshop webpage. Submissions will be accepted based on quality and interest and will represent a spectrum of practices,

materials, backgrounds, and concerns. Submissions should be sent via email to workshop organizers at disruptiveimprovisation@gmail.com. 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.

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