From HCI to HCI-Amusement: Strategies for Engaging what New Technology Makes Old

Laura Devendorf
ATLAS Institute, Information Science
University of Colorado, Boulder
laura.devendorf@colorado.edu

Kristina Andersen
Future Everyday, Industrial Design,
Eindhoven University of Technology
h.k.g.andersen@tue.nl

Daniela K. Rosner
Human Centered Design and Engr.
University of Washington
dkrosner@uw.edu

Ron Wakkary
Simon Fraser University
Eindhoven University of Technology
rwakkary@sfu.ca

James Pierce
Design Division, California College of
the Arts
CITRIS, University of California
pierjam@gmail.com

ABSTRACT

Notions of what counts as a contribution to HCI continue to be contested as our field expands to accommodate perspectives from the arts and humanities. This paper aims to advance the position of the arts and further contribute to these debates by actively exploring what a "non-contribution" would look like in HCI. We do this by taking inspiration from Fluxus, a collective of artists in the 1950's and 1960's who actively challenged and reworked practices of fine arts institutions by producing radically accessible, ephemeral, and modest works of "art-amusement." We use Fluxus to develop three analogous forms of "HCI-amusements," each of which shed light on dominant practices and values within HCI by resisting to fit into its logics.

KEYWORDS

Design Research; Fluxus; HCI-Amusements; Contributions.

1 INTRODUCTION

Over last few decades, researchers have continued to chip away at, rework, and expand what counts as a contribution within the field of HCI. Research programs such as critical technical practice (e.g. [1, 14]), research through design (e.g. [28, 31, 62]), feminist HCI (e.g. [10, 27]), critical making (e.g. [35, 55]), speculative design (e.g. [25]), and post-colonial computing (e.g. [54]) have been particularly effective in ushering in the perspectives from the arts, philosophy, social sciences, and humanities. These research programs expand contributions from technical objects to ways of formulating and demonstrating critical positions through the framing of design or its modes of practice. For instance, when describing the value critical technical practice, Phoebe Sengers writes, "it is important that there be a critical voice within [engineering practice] to make sure that engineers around the world are building things that we want to have as a society or that are making the world a better place and not just a more high-tech place" [59]

Making room for perspectives from "outside" of engineering can (and has) allowed the HCI community to ask better questions about technology and society and to take up our designerly practices towards a more diverse range of critical positions [4, 6–8, 19, 56]. Historically, one can see this expansion represented in the three "waves" of HCI, each supporting increasing levels of intellectual diversity [18]. Exploring the differing forms of accountability that accompany diverse "ways of knowing" is necessary in order to support engagements and conversations across disciplinary lines [52]. Additionally, expanded perspectives support calls for HCI to depart from "business as usual"—to shake up our field such that we are able to speak to the complexity and entangled nature of the technological, social, and environmental problems that face us today [42, 44, 46].

Yet, the forms of accountability and proof that accompany methods from arts and humanities challenge long-held

standards of scientific rigor, producing contestation about the most productive ways to engage these methods for HCI. For instance, some debates have tackled the limitations of established forms of proof, such as implications for design sections [21] or user evaluations [30, 32]. Others express competing values in how "research through design" is practiced and described [9, 31, 63]. Given all of these concerns and perspectives about the challenges that face the world today, and the worry that contributions in HCI, in their present form, may not be able to adequately address them, we decided to test the boundaries by asking what would happen if we engaged in a practice that would not constitute a contribution by traditional HCI metrics? Guided by our intuition and prior practice—**what might happen when we seek to create a non-contribution *for* and *within* HCI?"**

In this paper, we describe how the *technological new* shapes the practices and matters of concern for HCI. Specifically, how our practices of novel technology, linear progress, and broad impacts often shapes the objects and situations we study as well how we report that our interventions or observations "worked." These logics tend to shift research focus to frictionless futures, leaving a present world of persistent and unsettled challenges in the margins [2, 22, 44, 47].Our non-contributions attempt to address these left behind matters of concern by drawing inspiration from Fluxus, a network of artists working in the 1950's and 1960's who sought to develop new forms of art that challenged the exclusivity, commodification, detachment of "art" from the realities of everyday life. Specifically, we form an analogy between Art and what Fluxus described as "Art-amusements" and HCI and what we will present as HCI-amusements, which highlight the boundaries and subjectivities of our field by resisting to fit into its logics. We describe three forms of HCI-amusements— a correspondence, copublication, and cookbook which direct attention to the everyday and non-technological, embrace uncertainty and non-linear outcomes, and allow for the exchange of highly personalized and subjective prompts for action. We envision these amusements circulating as "para-research" within the HCI community, creating a space for sharing alternative or critical stances. Just as Fluxus eventually became folded into the cannon of fine art, we hope these "amusements" may become woven into the mainstream of HCI ushering in expanded forms of engagement, critique, and multi-/inter-/anti-disciplinary practices that work towards more livable, but not necessarily more "high-tech" worlds.

2 HCI AND THE LOGICS OF THE TECHNOLOGICAL NEW

When Wobbrock and Kientz set out to map HCI's forms of knowledge production in 2016 they began by acknowledging the distinct but "relatively few" forms of knowledge production across disciplines. Distinguishing among types, they offered seven categories relevant to the field: empirical, methodological, theoretical, dataset, survey, and opinion [12]. Each of these forms shared a common goal of producing "a research contribution by offering a new knowledge," differentiating such knowledge from "everyday know-how" as a result. Within the HCI design community, debates on "designerly ways of knowing" have offered an expanded perspective, outlining the various forms of rigor and relevance positioned through material development, authorship, and intervention. In its various incarnations, arguments for producing understandings through design practice spearhead a broader recognition of abductive reasoning comprised mainly of empirically-driven explanations and inferences. Gathered together within the edited volume *Ways of Knowing in HCI* [52], this range of epistemic values has recently highlighted the contours of positivistic, interpretivist, and critical expression.

Our work takes up a frequent kinship between "new knowledge" and "novel technology," which we use the term "technological new" to encapsulate. We focus on the specific ways that the technological new produces the old, irrelevant, or simply "everyday." Thus, the technological new is not formed by necessity, or some demand imposed by mythical HCI overlords, but comes about as a result of a set of entangled practices required to communicate that one's research offers a contribution.

Cliff Lampe describes a contribution as that which allows someone to "imagine new stories" [45], which addresses the open-mindedness of HCI to make space for multiple ways of knowing and doing design work—a quality of this community that the authors' have benefited from and appreciate. At the same time, it still hinges on the word "new," which, implicitly brings in notions of departure or progress as well as politics—who gets to say what is new and what isn't? As Kavita Philip et al. write in their analysis of the role of the new in perpetuating colonialism in design, "the assignment of novelty lies at the heart of how we value technical work" [54]. In this sense, judgments of what is "new" and worthy technological pursuits are mutually constructed.

Judgments of what is worthwhile or relevant for technologists are informed by a range of influences and play out most concretely in peer-review. Because the "new" is contested, one often is obliged in writing HCI papers to *tell* reviewers and the audience how their project is new or different. This work is much easier when one can appeal to novel or emergent domains of technology and the futures in which they thrive. While focusing on a concrete piece of technology and the new functions or possibilities it illuminates, it sidelines attention to what was remade or connections to historic modes of practice. In some cases, it may also direct researchers towards obviously new and under-researched

technologies of rather than seeking subtle, but potentially meaningful revisions or reexaminations of technologies or topics that are no longer fashionable. It is not that one *can't* do work that attends to the "old", but that one assumes risk in doing such work. As HCI researchers who have security in academic positions, we acknowledge that we feel freedom to take these risks in ways that others may not. Our goal, then, is to acknowledge our privilege while encouraging our field to reflect on how these kinds of "risks" are entangled with the specific forms and practices maintained by our field. Thus, we look beyond, after Duguid, "the apparent choice between leaping to the new or drowning with the old" [23] to surface other kinds of relationship and insights that can inform design.

Our call for exploring what a non-contribution would take is made explicit somewhat independently of the wider worlds in which that contribution takes hold. In this universalizing, we configure the stakes of our endeavor as veering on, if not outright embracing, the self-indulgent. In this speculation, our strategies of non-contribution arguably rest on the implication that the people who may eventually participate in their design have, like us, the capability to do so—the time, the space, the will, the freedom. They rest on the assumption that the technological new and technological necessary are not the same. For example, sites of disease management or disaster response already focus on what they have in the present, independent of the form they take (playful, amusing, non-deterministic, or simply vital). These ways of foregrounding the present and unsettled come at the expense of future planning and necessarily set apart the present from the possible futures that may never take place. Rather than trivialize or exoticize the new, we offer this musing as a chance to complicate the whole. That is, with our provocation we mean to grapple with the range of lines drawn in the sand that set expectations for what is possible ahead, but also what is expected today.

3 FLUXUS

Fluxus describes a collective of artists whose practices engaged with, but also resisted, the structures of avant-garde art in the 1950's and 1960's. In much the same way that we aim to rework the limiting practices of the technological new, Fluxus sought to rework the limiting practices of the mid-century avant-garde. Their radical tactics offer us insights as to how our non-contributions could be productively structured to engage HCI while working against its logics of the technological new.

In a recent discussion of cultural probes, Boehner, Gaver and their colleagues also described work from Fluxus artists serving as a specific inspiration: "More concrete inspiration [as compared to detoumement and derive associated with

the Situationist International] came from Fluxus boxes, packages of diverse games, cards suggestions produced as part of the avant-garde movement, which suggest that research materials might also be produced as similarly diverse loosely organized collections" [13]. The cultural probes drew from Fluxus an attention to multisensory engagement that led to forms of conversation through provocation and material exploration. Since their introduction, probes have informed a range of traditions within and beyond HCI in ways that inspire a widening of knowledge contributions, particularly around the value of humanistic insights. In this project, we are creating a set of probes of an autobiographical sort [50] in the sense that they probe our research practices in order gain insight about our field and to generate possibilities for communications and exchange about HCI that emerge apart from traditional ideas of a contribution. In the paragraphs that follow, we'll introduce Fluxus as well as the forms and tactics they used to rework the logics of the avant-garde which directly influenced the forms we present for HCI.

Art Amusement is to Art as HCI-amusement is to HCI

Our project finds its roots in one of Fluxus' many manifestos, written by Fluxus artist and writer George Maciunas in 1965 entitled *Fluxmanifesto on Fluxus Art Amusement* [49]. Printed with black offset ink on a small (6cm x 17cm) sheet of paper, the manifesto offers a distinction between the avant-garde and Fluxus art-amusement. We have preserved the incorrect grammar to give the reader a stronger sense of the style of this particular Fluxus text:

Fluxmanifesto on fluxamusement-vaudeville-art? To establish artists nonprofessional, nonparasitic, nonelite status in society, he must demonstrate own dispensibility, he must demonstrate selfsufficiency of the audience, he must demonstrate that anything can substitute art and anyone can do it. Therefore this substitute art-amusement must be simple, amusing, concerned with insignificancies, have no commodity or institutional value. It must be unlimited, obtainable by all and eventually produced by all. The artist doing art meanwhile, to justify his income, must demonstrate that only he can do art. Art therefore must appear to be complex, intellectual, exclusive, indispensable, inspired. To raise its commodity value it is made to be rare, limited in quantity and therefore accessible not to the masses but the social elite.

This manifesto outlines the dominant logics used to justify labeling a particular practice "art"—art practice must be exclusive (made by professional and establishment artists), rare (the works must be singular and precious), and skillful (it must demonstrate the unique capacity of an artist to produce work that cannot be performed by the lay public). Fluxus art-amusement, visible in the works of Yoko Ono, Nam Jun Paik,

or Trisha Brown, proposed something different: reworking the institutions of art to make space for the mass produced, nonprofessional, and quotidian. Furthermore, Fluxus did not seek to oppose art (though it is often mischaracterized as anti-art), instead, it engaged art to the extent required to rework and expose its logics, creating space for new forms of art practice and social engagement. In the years following Maciunas' essay, Fluxus art-amusement often took the form of endlessly reproducible publications with no particular authors, instructions that posed prompts for others to perform in everyday life, or flux-box kits full of everyday trinkets and assemblies that holders were invited to touch, rework and manipulate [33, 34, 38].

The first Fluxus tactic that we engage is the event score—vague instructions offered for others to execute in daily life. Event scores form affinities with music scores; only they provide notation that a person can interpret to perform specific actions in daily life. For example, George Brecht's *Two Exercises* is composed as a personal letter, complete with handwritten address, signature, and stamp, sent to Albert M. Fine [16]. The letter describes a short series of steps for deliberately moving and categorizing objects in two steps. It begins by asking its reader to "Consider an object, call what is not the object 'other.'" It follows with instructions to "Add to the object, from the 'other,' another object, to form a new object and a new 'other.' Repeat until there is no more 'other.'" Yoko Ono's self-published collection, *Grapefuit*, contains several poetic gestures that hint towards the absurd, asking its readers to do things like "imagine one thousand suns in the sky" and then "Make one tunafish sandwich and eat." [53] These prompts place very loose specifications on who, how, or when they would be performed. They simply function as gestures, offerings of modest form exchanged between artists or crafted for broader audiences. In cases where they were sent between artists, event scores created space for personal and intimate forms of exchange. Collections of event scores with associated texts, manifestos, and artworks were distributed through low-cost publications released through the independent Fluxus publishing outfit "Something Else Press" [37, 43].

The second Fluxus tactic is the construction of "Fluxkits," collections of *objects* offered as prompts for engagement. Designed to provoke personal exploration of commodity "low-brow" culture and to be endlessly reproducible [34], Fluxkits were originally envelopes and boxes that held an array of cheap, often mundane materials: mixed-media musical scores, evocative photos and poems, and everyday objects like a napkin or medical examination glove. The kits would be displayed, and people would open, read, and manipulate the items. Later versions included cards with instructions, food such as beans, and instruments for performance. In one example, Finger Boxes, a person could stick a finger inside

one of many identical boxes to discover unique tactile sensations, literally probing the materials within. The box might prick, it might squeeze, or it might wrap around the finger. As Fluxus artist Hannah Higgins explained, "merely to look at them is to experience them only partially" [38].

While Fluxus attempted to create friction with the avant-garde of its time, its logics and forms opened pathways for broader engagements for performative methods in fine art. As art historian Natilee Harren describes, "Today, with the efflorescence in contemporary art of experimental forms of publishing, performance, social practice, sound, and myriad forms of new media, the impact of the international, neo-avant-garde Fluxus collective seems to register everywhere" [33]. They are what sociologist Howard Becker would refer to as a collective of "maverick" artists, whose work is "useful in producing the variation required to rescue art from ritual" [11]. In the following sections, we draw from Fluxus–its radical activism and inversions of the new—to make a similar move in HCI, reworking our rituals of research and contribution to broaden its subjects of inquiry.

4 DEVELOPING HCI-AMUSEMENTS

As a manner of investigating these concerns in a structured manner we took up Fluxus' methods of personal exchanges, collections, and alternative publications as a starting point for our HCI-amusements. By using Fluxus as a compass to navigate inquiry into the boundaries and subjectvties of the technological new we ask:

- What kinds of forms and practices emerge when we turn away from the new to, instead, attend to the persistent, unsettled and non-digital?
- What tensions might these forms and practices create with our typical practices of attribution and impact?
- How does sidelining the technological new allow us to pay attention to things in a different manner?

The HCI-amusements that emerged are: a correspondence; a co-publication, and a cookbook. In the following sections, we describe these forms in detail, charting their capacity to sensitize researchers and let them sit with themes of persistence, non-linearity, rigidity, sameness, and emergence apart from a specific design trajectory or concern.

1: "So I made this thing" - a correspondence

The first form that emerged in this inquiry was structured engagement in a designerly form of personal correspondence. The correspondence borrows the logics of exchange illustrated in Brecht's *Two Exercises* and took place between Andersen in Europe and Devendorf in the US. The exchange was initiated by collaboratively and quickly drafting a set of rules:

- size: matchboxes

Figure 1: "So I made this thing" was a correspondence between Devendorf and Andersen that involved the sending and receiving of matchboxes filled with objects and the production of "things" composed those items.

- simple padded envelope
- timing: return in 10 days
- no pressure
- theme: so I made this thing

The quickness and effortlessness of composing the rules, with little consideration of "research" impact or discussions of success was the first step towards resisting our best research impulses. Implicit in this rule structure was the Fluxus attention to the personal. The rules reflected our existing knowledge of each other's lifestyles and perpetual hang-ups with over-thinking. The constraints are set up to scope simplicity—"it" must fit in a box, the box will be exchanged, and it will result in a thing.

Devendorf and Andersen exchanged five boxes between Summer 2016 and Winter 2017 (Fig. 1). There was an intentional choice by the parties involved to resist rationalization by avoiding any correspondence about the exchange. Specifically, we did not discuss our correspondence apart from

logistical coordination (e.g. I sent mine on this date, I'll send one soon when things calm down).

The first box sent from Andersen to Devendorf implicitly set up an additional set of "rules" and structures in the form of objects: a pile of loose cotton fibers, a rubberband, a glow in the dark star with adhesive backing, and a safety pin appeared as a disjoint collection of things to be composed into a new kind of thing. Each form could be examined differently now that it had been separated from its original context and placed in juxtaposition with the others in the box. Devendorf approached these objects as though they were a kind of thing-grammar, each one representing or fulfilling multiple qualities of objects: pointy, soft, fibrous, childlike, glowing, and so on. Placed in juxtaposition with another "thing" made them into something new: a character, sculpture, or "agentic assemblage" [12] with a unique capacity to affect our thoughts an action. Once assembled, Devendorf made the choice to refill the box with a new collection of

objects that fulfilled a similar set of object qualities as those in the original box (e.g. a pointy thing, a form of currency, etc.).

Rules bred rules throughout the exchange: some defined by actions Devendorf and Andersen explicitly did or did not perform; some created by livelihoods of the materials involved; and some imposed by the infrastructures involved by the activity. Specifically, human choice influenced and was influenced by the way the person creating a box imagined that their materials would be able "strike" the other. It was important that the box felt like a gift, a gesture, an exciting parcel to unwrap and explore. The form of the box focused attention to small materials and the quality of the box being shipped across an ocean and not to return had the affect of focusing attention on the readily available; junk; or everyday discard of Devendorf and Andersen's lives. The structure of the mail system between countries imposed rules on what kinds of materials would be permissible through customs and considerations of what a customs agents might suspect from particular collections. The rigidity of any given rule, or the degree to which we felt motivated to comply, was individually negotiated in relationship to what we felt would allow the exchange to persist. The matchbox persisted; the rule to exchange in 10 days did not.

For Devendorf, the amalgamation of rules had the affect of starting an ongoing thread in her brain that considered materials in a new way—moments cleaning up the house would often reveal an interesting object to consider for the exchange. In other cases, it inspired trips through fab-labs to collect interesting small material waste: neon green 3D misprints that resembled fabrics or tiny stacks of paper discarded from a paper plotter. The task of populating a box became an adventure in looking through abandoned drawers and neglected office shelves. It prompted consideration of materials before they entered the trash—such as the silica gel freshness packs included in snack food. When placed in the gift exchange boxes, objects began new itineraries [40, 57], becoming objects of attention rather than discard. When sent to someone across an ocean, they had the unique quality of being at once universal and personal: things like sticks, pencil stubs, coins, string, the fasteners that one finds on bags of bread are immediately recognized as items that seem to be universally pervasive, yet they also speak to the specific environments of the sender, allowing us to recreate some idea of life by way of the things they had at hand to discard. At the same time, these universal objects became objects of admiration when re-contextualized within the activity. We began to consider the bag fastener as a sculptural element, an interesting shape, and an object for holding together.

Within our correspondence, actively resisting our impulses to consider a goal, a research contribution, a mark of success or failure, or the development of a technological

thing created a space for reflection on the persistence of things that populate the peripheries of our daily lives. Furthermore, the decision to exchange through the mail brought forward elements of more personalized craft, gifts that passed through many hands in order to arrive at their destinations. The exchange was delightful and amusing as it cultivated an active kind of "looking" and exploration that Devendorf and Andersen felt benefited their work as designers while not fitting into one activity in particular.
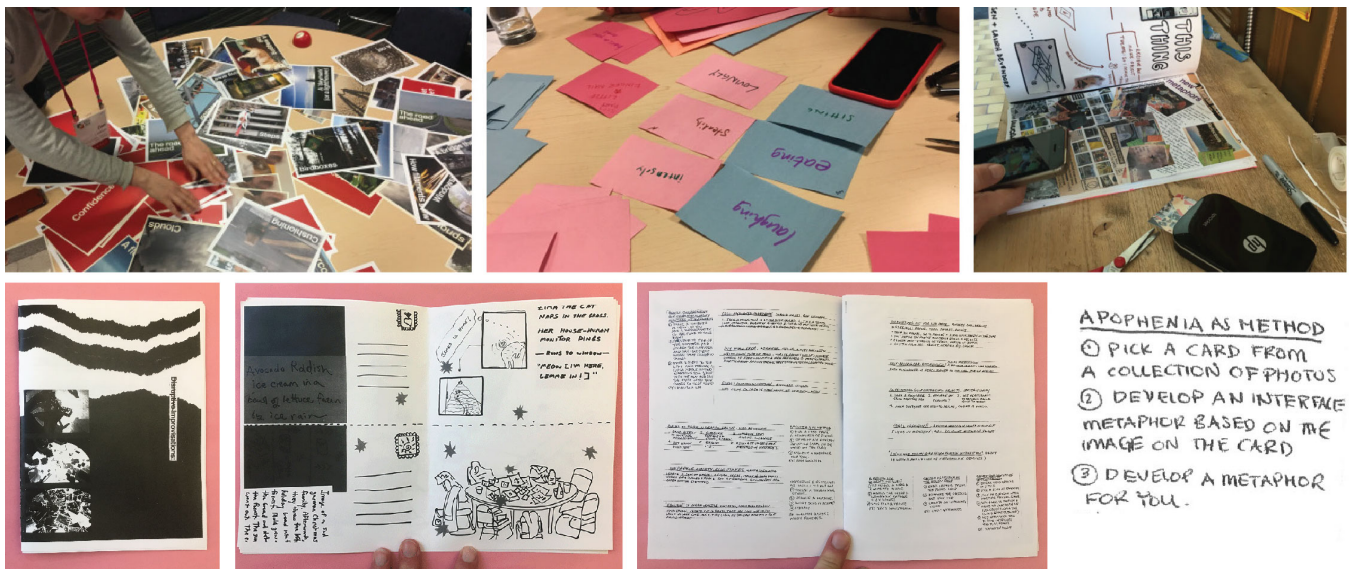
2: Disruptive improvisation - a copublication

The second form that emerged through our collective engagements with Fluxus was a co-publication. Much like "zines" (e.g. [26]) the copublication was composed by 23 people, compiled into a pamphlet, photocopied at a print shop and informally distributed by its authors.

The co-publication emerged out of a CHI 2018 workshop on "Disruptive Improvisations" which was devoted to questioning how practitioners in HCI engage the kind of non-deterministic activities characterized by Fluxus in their daily design practices [5]. The workshop was an exercise in exploring what forums within our community might be best suited for sharing such practices. We solicited entries to the workshop on methods researchers used to make the familiar seem strange, consider alternative possibilities, and meditate on design in everyday life. We asked participants to submit tactics in the form of a written "recipe for making" as well as texts that reflect on themes that contrast the technological new: uselessness, no-technology, failure, modesty, and scarcity.

Members of the CHI community responded enthusiastically to the call, suggesting a desire for a broader community to contribute to and participate in the kinds of exchanges our Fluxus inspired actions proposed. Participants came from established design, human-computer interaction, anthropology, and art programs and each submission presented tactics that the author had found productive in their practice or had developed to engage non-determinism within their design process. Each tactic was informed by the practitioner's field of study and utilized methods from sketching, to performance, to craft. For instance, one tactic involved: conceptualizing new kinds of wearables by writing a body part, adverb, and a verb based on movement on separate cards; randomly drawing from those cards; and sketching the ideas they inspired. The result in one case were concepts for "steadily eating little fingernail." Another asked participants to identify metaphors for interaction and for themselves (Fig. 2), which resulted in participants engaging in "unlicensed therapy" sessions.

During the workshop we performed the proposed tactics in three groups of roughly nine participants each. Each group member presented their tactic to the group and then

Figure 2: The "Disruptive Improvisation" copublication, a collection of tactics for making and non-linear outcomes. The complete pamphlet and set of tactic are available online at https://disruptiveimprovisation.wordpress.com/

the entire group would take 15 minutes to perform the tactic. The groups began to take on very strong personalities, with one group becoming so rowdy with laughter as to warrant a scolding from the workshop organizers. In this sense, the dynamics of the collective of people performing, in the particular context of an academic workshop, shaped how the tactics were engaged—often trading private reflection with social performance. Social rules emerged in addition to the human-thing-infrastructure rules mentioned previously. Furthermore, the situating of the activities within CHI brought a kind of utility and set of metrics to the activities that we avoided in our personal correspondence. Specifically, the tactics often functioned as non-deterministic brainstorming techniques or ways to "discover" design scenarios that a piece of software ought to support. While this orientation towards progress is part of what we began by trying to resist, the location of a sterile conference, the time constraints of 15 minutes per tactic, the participants being "researchers" with nametags, and the presence of generous and open-minded corporate sponsors sired an adaption that translated to brainstorming for design groups, workshops, or classrooms.

After the tactics were performed, we instructed groups to create spreads for a copublication/zine based on their experiences. We supplied very few rules for what this might look like and again the group dynamics took over, as different groups strategized as to how they might parlay their experiences in a publishable format. One group simply delegated one page to each group participant to document their tactic, another collectively produced "postcards" depicting "avocado radish ice-cream" or a drawing of the workshop participant's

table. Devendorf, Andersen, and Rosner met the day after the workshop to turn the spreads produced at the workshop into a pamphlet that could be photocopied en-mass. We met at a café, spread out the material we had collected and began putting a "master" copy together (Fig. 2). Devendorf and Rosner hand-transcribed each tactic with the name of its associated author for a cover page; Andersen printed out the workshop call onto a small portable Sprocket printer and affixed it to the back cover; and we used a saved stack of torn construction paper, that we found to be particularly beautiful at the workshop, to create the cover.

We view the copublication as an artifact that offers itself up for reference in a way that a series of performed events cannot. We included the names of each participant as a form of care and recognition of their participation—something that they may need to bring back to their institution for purposes of support or funding. At the same time, while we had originally envisioned them going "viral", traveling beyond the people to which we distributed, we have not heard much back. Our feeling is that the format is too incomprehensible (and also offered in more digestible form on the workshop web page). Its acceptance of any and all points of view or areas of interest made it of little appeal to any person in particular. While we learned that there is a broader community of researchers interested in engaging Fluxus-like tactics in their practices, and the possibility of transitioning these techniques into course activities and brainstorming techniques, the copublication left us wanting forms that were more strongly positioned and subjective.
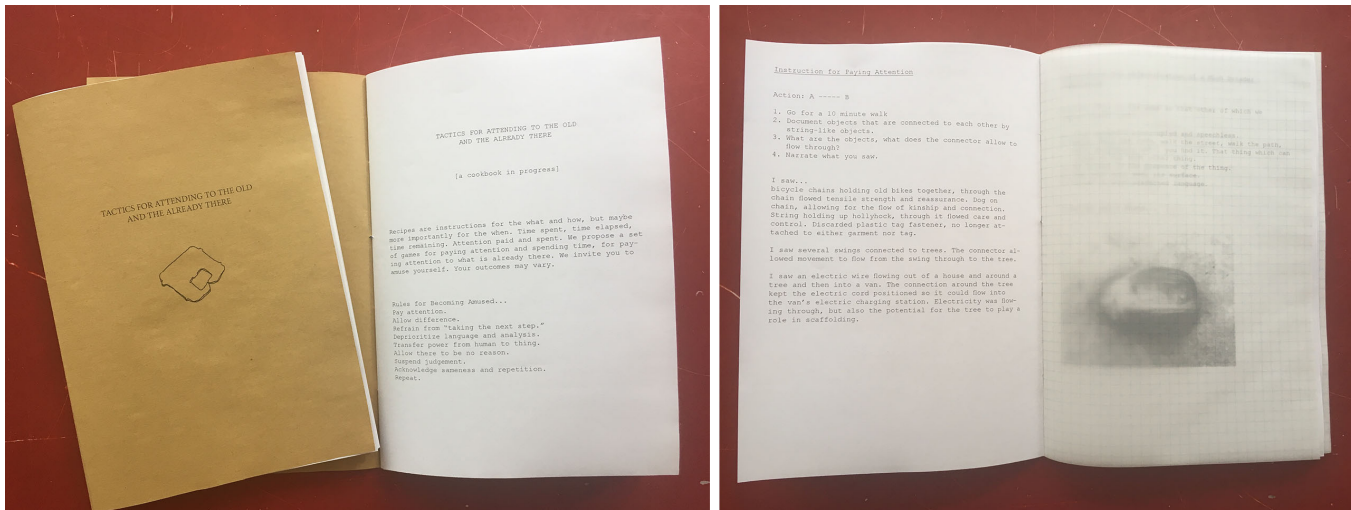
Figure 3: Cookbook: TACTICS FOR ATTENDING TO THE OLD AND THE ALREADY THERE, each strategy takes the form of a recipe and an example of an outcome from the authors.

3: A cookbook of HCI-amusements

The third form we present is a cookbook that draws from the lessons of our correspondence and copublication. Whereas the copublication exists as a stand-in or reference point for a series of actions performed, cookbooks offer a collection of prompts and manifestos that call for action ahead. Their form takes inspiration from Fluxus as well as broader collections of "chance operations" and artful instructions have been compiled over several decades [17, 41, 51, 61].

To more concretely envision this form, we developed a cookbook entitled, *Tactics for Attending to the Old and Already There*. The content was generated by an exchange between the authors in which we drafted tactics for each other to perform; performed them in our daily lives; and shared outcomes. The resulting cookbook offers these tactics to a broader audience, beginning with a short introduction of the activities offered inside and a series of rules including, "Deprioritize language and analysis (until later)" and "Allow there to be no reason." The following pages of the cookbook contain instructions for things like "paying attention", "allowing difference" and "suspending judgment." For instance, the instruction for paying attention consists of the following steps: Go for a 10 minute walk; Document objects that are connected to each other by string-like objects; What are the objects, what does the connector allow to flow through? Narrate what you saw. It is followed by a short description of what we noticed when we performed the task:"Dog on chain, allowing for the flow of kinship and connection. String holding up hollyhock, through it flowed care and control."

Our cookbook is a form of publication that allows subjective and specific offerings for others to take up in their own practices: accounts of strategies, methods of madness, examples galore. Sewn together as a book, cookbooks offer themselves for someone to take up or leave behind and thus elide traditional metrics and politics of quality and contribution. As such, it presents a space for voicing strong positions or visions of technopolitics, and for illustrating actions that may shed light on our field by resisting operationalization within it (e.g. the turning of readership in to citational counts and "h-indexes"). At the same time, such cookbooks could prompt gestures from others—activities intended for readers to perform in order to bring about embodied experiences in addition to intellectual ones. Within the realm of cookbooks and their exchange, we might be able to envision emergent discussions about an HCI of the not-new, ways of attending to persistent challenges, and problems apart from possible (or "preferable") solutions [3].

Much like a collection of recipes for cooking, an HCI-amusement cookbook contains recipes for action—reflecting the personal tastes, ideas, and practices of its author(s). As a genre, it serves to illustrate an intermingling of affective, practical, and cultural sensibilities. Yet, unlike other compendia, we find the cookbook additionally illustrates the historically political and contingent nature of collection work. Nearly six decades back, Herbert Simon dismissed the "cookbooky" and "intellectually soft" knowledge of a design of the artificial [60]. In our current exploration, we see the cookbook as a political inversion: elevating the gendered labor typically dismissed as lesser or other. The cookbook-as a reference to the "soft" sensibility that escapes the studied, arguably male, scientific eye-takes up the language of cookery to invert this dominant gaze, the forms of canonical contribution that continue to harden the technological new.

Rather than offering another novelty or upholding the idea of the technological new once again, the cookbook plays with the old, traversed, and already done (if still unseen or under-acknowledged).

We envision the cooks, in this sense, as HCI researchers, performers, and activists selecting books or recipes based on their relationship with that author and/or their interest in the recipes and ingredients inside. These books may be exchanged at conferences, handed from one person to another or left on tables for others to serendipitously acquire. We see this subjective selection as meaningful, even if it fails to generalize. The content may serve an unnamed public or it may invite a public to borrow from the activities crafted for a particular person.

5 WHERE DID WE END UP?

We began this project by taking a strong position to explore the non-contribution as a means of attending to what HCI's focus on the technological new might leave out. In the end, we engaged in three forms of practice: a fun designerly personal exchange that changed the way we related to everyday objects and each other; a group exchange of techniques oriented towards individual interests and tactics which became encapsulated in a DIY publication; and a concept for another kind of publication to be circulated that offers strongly subjective exercises for others to perform. By turning away from the new, we developed a fascination with the banal, most specifically, the artful form and specificity of fasteners found on plastic bags containing bread. As such, our activities started threads of attention to things often overlooked, from fab-lab trash to international customs agreements, to a fascination with concepts for augmented fingernails. In each case, determining if the HCI-Amusement "worked" requires a more modest form of evaluation. Success becomes more complicated to assign because it can take multiple forms and resides in multiple locations. For example, we would consider a cookbook to be a success if it were to cultivate new perspectives within a single reader, if it were to inspire large communities to take up new forms of practice and thought (say, as part of teaching materials or generative brainstorming techniques), or if the person who engaged the practice considered it to be a success in a more personal sense. Success is more personal, felt, and modest than what we typically consider in evaluating contributions in HCI.

Will our HCI-amusements solve the most pressing issues facing the world?—probably not. But could they lay the foundation for some practices of more reflectively seeing, thinking, relating to, and engaging in the world that eventually become enacted into more actionable projects towards more livable futures?—to this end we are hopeful. With this hopefulness in mind, we use the following sections to: offer a

vision of new forms of circulations that bring HCI and HCI-amusement into a deeper conversation; the various alignments this project forms with other initiatives to broaden the purview of HCI; and a reflection on the contribution of our exploration of non-contributions.

HCI-Amusements as Para-Research in HCI

Our original re-engagement with Fluxus was aimed at unsettling the progressivist nature of the technological new. To do this, we have been taking a decidedly non-progressivist position that advocates for non-contributions in the form of the ordinary and the non-technological. However, as stated earlier, we take this position *for and within* HCI. We desire to see our interventions folded into HCI as a way to expand forms of engagements and to foster an HCI that is multi-/inter-/anti-disciplinary in what feminist scholar Rosi Braidotti calls a "joyful affirmation of counter-subjects" [15]. Hewing to our Fluxus commitments, we suggest these activities take on the form of *para-research*. By this we mean, working alongside dominant practices in ways that that eventually lead to a reworking of HCI into a collective of differences and logics of *para-research* and research practices alike.

Arguably, the critique of avant-gardism by Fluxus is a non-progressivist reframing of cultural production that is achieved through engagement rather than opposition. The embracing of the "all and everything" as art by Fluxus, the joyful affirmation of what makes culture, avoids the avant-garde dilemma of being the harbinger of the next new dominant practices and institutional standards. The progressivist narrative of avant-gardism, an antecedent to our neo-liberal era, is progress by ongoing creative destructions and continuous innovations. A process in which the past cultural achievements are logical fodder for new cultural achievements in an endless cycle forward. Harren observes in Macuinas' writings and many drawings that "Fluxus art history is depicted as a history of asynchronous affinities snaking in multiple directions across an emphatically two-dimensional matrix, attesting to the artists' thoroughgoing anti-modernist view that cultural history is cumulative, additive, and extensive rather than linear and mono-directional" [33].

Similarly, the *para-research* of HCI-amusements sidesteps the problematics of progressivist narratives by evolving in non-linear accumulations in which we look back for affinities like Fluxus, and in this paper, position ourselves to look forward for future affinities within HCI. HCI-amusements as *para-research* can now serve to identify and name what has been left behind by the *technological new*, the mundane and inconsequential (what Fluxus saw as the value of the detritus left on the streets), and the activities that form across informal engagements with non-researchers, mentors, family, and friends through conversations, social outings, sharing drinks, to the "goings on" of everyday life as a matter of knowing

in HCI. Lastly, this stepping aside of progressivist narratives through *para-research*, opens HCI to a greater concurrency of ways of knowing, of which HCI-amusements is only one. In this way, we hope to see other forms of *para-research* in which the prevailing practice can give way and make space, for alternative contributions to HCI.

Affinities with Other Research in HCI

Engaging in our study of the non-contribution has also led us to reflect on how our work situates itself among practices like speculative [25], critical [24], reflective [58], adversarial design [20], and cultural probes [29]. While we share values for critical reflection and playfulness that motivate these approaches, we make a conscious choice to refer to these as HCI-Amusements as opposed to "Amusing Design." We make this choice to emphasize design practice over outcomes and to identify a community (HCI) to which the activities are oriented and exchanged. Perhaps most closely aligned with cultural probes, HCI-amusements turn probes back to the HCI community, creating space to reflect on our own practices, share gestures, and inspire new visions for the field and its core concerns. Furthermore, we envision HCI-amusements and their modes of exchange as being radically open-ended, offering collections and recipes for action with no expectations of response or "next steps." More like gifts than research products or methods, HCI-Amusements create a space for sharing ideas and activities apart from any specific logic of evaluation.

The specific HCI-amusements we suggest, particularly the collections which take the form of a copublication and cookbook share much in common with "zines" and card decks for designerly action. For instance, Garnet Hertz' collection of independent publications on Critical Making [35] and Disobedient Electronics [36] compile and share submissions from numerous authors across the arts, humanities and engineering. Fox et al describes how zines can circulate in and out of HCI, fostering broader engagement [26, 27]. Zines conjure the aesthetics of punk and activism, making space for marginalized opinions to flourish outside of standardizing bodies. Card decks such as IDEO's "method cards" [39] or Logler et al's Metaphor Cards [48] prompt their performer or player to undertake specific actions in forms that elicit designerly disruptions and reflection. While the HCI-amusements we describe envision similar modes of circulation and disruptive practices, they are more specific in the kinds of content they suggest: focusing specifically on the inclusion of activities for embodied and focused engagement while outside any particular research application.

The Contribution of our Non-Contributions

Our exploration of the non-contribution and the forms it generated has ultimately relied on the same metrics for approval

that our work aims to broaden—highlighting that different forms of publication and exchange carry different modes of respect, attention, and consideration. While we aim to introduce new channels of exchange, CHI papers are still the dominant form of communication in HCI and currently offer the best potential for engaging broad audiences in discussing and reflecting on the issues we address. We see this paper as serving the missions of the HCI-amusements/para-research by drawing attention to our project by way of a peer-reviewed citable publication and a conference presentation. This format brings with it a sense of credibility by the community and can perform work within contexts of promotion and professionalization that the para-research forms we suggest do not hold at present. As such, the paper format allows us to introduce HCI-amusements and their motivation, encourage creation and exchange of such formats, and may eventually lead to broader adoption and recognition as we have seen with new publication formats like pictorials. Furthermore, different formats allow for different modes of rationalization and discourse. A "traditional" CHI paper allows us to provide this rationalization, the story of how our amusements emerged, while leaving particular HCI-amusements, like cookbooks, to be more focused on action and strong positions apart from narratives of why or how.

6 CONCLUSIONS

Through the production of a series of HCI-amusements, we have argued that certain practices of design may be more impactful (in a personal and subjective sense) if questions of evaluation, analysis, and contribution are sidelined. We describe forms of exchange, publication, and circulation that could make space for these kinds of highly personalized and subjective gestures and exercises among HCI researchers. Using art history as a guide, we argue that our "HCI-amusements" should circulate independently of, but in direct with relationship to HCI, in order to maintain a critical correspondence produced through difference. We hope that the ongoing expansion and acceptance for diverse kinds of research at HCI will eventually find ways to weave in the practices we suggest.

ACKNOWLEDGMENTS

REFERENCES

[1] Philip E. Agre. 1997. *Computation and Human Experience.* Cambridge University Press, Cambridge ; New York.

[2] Yoko Akama, Sarah Pink, and Shanti Sumartojo. 2018. *Uncertainty and Possibility: New Approaches to Future Making in Design Anthropology.* Bloomsbury Academic.

[3] Moreshin Allahyari and Daniel Rourke. 2015. The 3D Additivist Cookbook. https://additivism.org/cookbook

[4] Sareeta Amrute. 2016. *Encoding Race, Encoding Class: Indian IT workers in Berlin.* Duke University Press.

[5] Kristina Andersen, Laura Devendorf, James Pierce, Ron Wakkary, and Daniela K. Rosner. 2018. Disruptive Improvisations: Making Use of Non-Deterministic Art Practices in HCI. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA '18).* ACM, New York, NY, USA, Article W11, 8 pages. https://doi.org/10.1145/3170427.3170630

[6] Seyram Avle and Silvia Lindtner. 2016. Design (ing)'Here'and'There': Tech Entrepreneurs, Global Markets, and Reflexivity in Design Processes. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems.* ACM, 2233–2245.

[7] Seyram Avle, Silvia Lindtner, and Kaiton Williams. 2017. How methods make designers. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems.* ACM, 472–483.

[8] Anne Balsamo. 2011. *Designing Culture: The Technological Imagination at Work.* Duke University Press Books, Durham NC.

[9] Jeffrey Bardzell, Shaowen Bardzell, and Lone Koefoed Hansen. 2015. Immodest Proposals: Research Through Design and Knowledge. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15).* ACM, New York, NY, USA, 2093–2102. https://doi.org/10.1145/2702123.2702400

[10] Shaowen Bardzell. 2010. Feminist HCI: Taking Stock and Outlining an Agenda for Design. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '10).* ACM, New York, NY, USA, 1301–1310. https://doi.org/10.1145/1753326.1753521

[11] Howard S. Becker. 1976. Art Worlds and Social Types. *American Behavioral Scientist* 19, 6 (July 1976), 703–718. https://doi.org/10.1177/000276427601900603

[12] Jane Bennett. 2010. *Vibrant Matter: A Political Ecology of Things* (unknown edition ed.). Duke University Press Books, Durham.

[13] Kirsten Boehner, William Gaver, and Andy Boucher. 2012. Probes. In *Inventive Methods: The Happening of the Social,* Celia Lury and Nina Wakeford (Eds.).

[14] Kirsten Boehner, David Shay, Joseph 'Jofish' Kaye, and Phoebe Sengers. 2005. Critical Technical Practice as a Methodology for Values in Design. (2005).

[15] Rosi Braidotti. 2015. Punk Women and Riot Grrls. *Performance Philosophy* 1, 1 (April 2015), 239–254. https://doi.org/10.21476/PP.2015.1132

[16] Geroge Brecht. 1961. Two Exercises.

[17] Alastair Brotchie and Mel Gooding. 1995. *A Book of Surrealist Games.* Shambhala, Boston.

[18] Susanne Bødker. 2015. Third-wave HCI, 10 Years Laterâ€îparticipation and Sharing. *interactions* 22, 5 (Aug. 2015), 24–31. https://doi.org/10.1145/2804405

[19] Elizabeth Chin. 2016. *My life with things: The consumer diaries.* Duke University Press.

[20] Carl DiSalvo. 2012. *Adversarial Design.* MIT Press.

[21] Paul Dourish. 2006. Implications for Design. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '06).* ACM, New York, NY, USA, 541–550. https://doi.org/10.1145/1124772.1124855

[22] Paul Dourish and Genevieve Bell. 2014. *Divining a Digital Future: Mess and Mythology in Ubiquitous Computing* (reprint edition ed.). The MIT Press.

[23] Paul Duguid. 1996. Material Matters: Aspects of the Past and the Futurology of the Book. In *The Future of the Book,* Geoff Nunberg (Ed.). http://people.ischool.berkeley.edu/~duguid/SLOFI/Material_Matters.htm

[24] Anthony Dunne. 2008. *Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design.* The MIT Press, Cambridge, Mass.; London.

[25] Anthony Dunne and Fiona Raby. 2013. *Speculative Everything: Design, Fiction, and Social Dreaming.* The MIT Press.

[26] Sarah Fox and Daniela K. Rosner. 2016. Continuing the Dialogue: Bringing Research Accounts Back into the Field. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16).* ACM, New York, NY, USA, 1426–1430. https://doi.org/10.1145/2858036.2858054

[27] Sarah Fox, Rachel Rose Ulgado, and Daniela Rosner. 2015. Hacking Culture, Not Devices: Access and Recognition in Feminist Hackerspaces. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15).* ACM, New York, NY, USA, 56–68. https://doi.org/10.1145/2675133.2675223

[28] Christopher Frayling. 1993. Research in Art and Design. *Royal College of Art Research Papers 1* 1 (1993), 1–5.

[29] Bill Gaver, Tony Dunne, and Elena Pacenti. 1999. Design: Cultural Probes. *interactions* 6, 1 (Jan. 1999), 21–29. https://doi.org/10.1145/291224.291235

[30] Bill Gaver and Kia Höök. 2017. In Search of the Elusive CHI Design Paper. *Interactions* 24, 2 (Feb. 2017), 22–23. https://doi.org/10.1145/3039901

[31] William Gaver. 2012. What Should We Expect from Research Through Design?. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12).* ACM, New York, NY, USA, 937–946. https://doi.org/10.1145/2207676.2208538

[32] William Gaver and Kristina Höök. 2017. What Makes a Good CHI Design Paper? *Interactions* 24, 3 (April 2017), 20–21. https://doi.org/10.1145/3076255

[33] Natilee Harren. 2015. The Crux of Fluxus: Intermedia, Rear-guard. *Living Collections Catalogue* 2, 1 (March 2015). http://www.walkerart.org/collections/publications/art-expanded/crux-of-fluxus/

[34] Natilee Harren. 2016. Fluxus and the Transitional Commodity. *Art Journal* 75, 1 (Jan. 2016), 44–69. https://doi.org/10.1080/00043249.2016.1171540

[35] Garnet Hertz. 2012. Crtical Making. http://conceptlab.com/criticalmaking/

[36] Garnet Hertz. 2016. http://www.disobedientelectronics.com/

[37] Dick Higgins. 2018. Intermedia, Fluxus and the Something Else Press. http://sigliopress.com/book/dick-higgins/

[38] Hannah Higgins. 2002. *Fluxus Experience* (first edition ed.). University of California Press, Berkeley.

[39] IDEO. 2013. IDEO Method Cards: 51 Ways to Inspire Design.

[40] Rosemary A. Joyce and Susan D. Gillespie (Eds.). 2015. *Things in Motion: Object Itineraries in Anthropological Practice* (first edition ed.). School for Advanced Research Press, Santa Fe.

[41] Corita Kent and Jan Steward. 2008. *Learning by Heart: Teachings to Free the Creative Spirit* (2nd edition ed.). Allworth Press, New York, NY.

[42] Vera Khovanskaya, Lynn Dombrowski, Ellie Harmon, Matthias Korn, Ann Light, Michael Stewart, and Amy Voida. 2018. Designing Against the Status Quo. *Interactions* 25, 2 (Feb. 2018), 64–67. https://doi.org/10.1145/3178560

[43] Alison Knowles. 1971. Journal of the Identical Lunch. http://www.walkerart.org/collections/artworks/journal-of-the-identical-lunch

[44] Matthias Korn and Amy Voida. 2015. Creating Friction: Infrastructuring Civic Engagement in Everyday Life. In *Proceedings of The Fifth Decennial Aarhus Conference on Critical Alternatives (CA '15).* Aarhus University Press, 145–156. https://doi.org/10.7146/aahcc.v1i1.21198

[45] Cliff Lampe. 2016. What makes research a contribution to CHI? https://medium.com/@clifflampe/what-makes-research-a-contribution-to-chi-263873b22f0

[46] Ann Light, Alison Powell, and Irina Shklovski. 2017. Design for Existential Crisis in the Anthropocene Age. In *Proceedings of the 8th International Conference on Communities and Technologies (C&T '17)*. ACM, New York, NY, USA, 270–279. https://doi.org/10.1145/3083671.3083688

[47] Ann Light, Alison Powell, and Irina Shklovski. 2017. Design for Existential Crisis in the Anthropocene Age. In *Proceedings of the 8th International Conference on Communities and Technologies (C&T '17)*. ACM, New York, NY, USA, 270–279. https://doi.org/10.1145/3083671.3083688

[48] Nick Logler, Daisy Yoo, and Batya Friedman. 2018. Metaphor Cards: A How-to-Guide for Making and Using a Generative Metaphorical Design Toolkit. In *Proceedings of the 2018 Designing Interactive Systems Conference (DIS '18)*. ACM, New York, NY, USA, 1373–1386. https://doi.org/10.1145/3196709.3196811

[49] George Maciunas. 1966. Fluxus (Its Historical Development and Relationship to Avant-Garde Movements).

[50] Carman Neustaedter and Phoebe Sengers. 2012. Autobiographical Design in HCI Research: Designing and Learning Through Use-it-yourself. In *Proceedings of the Designing Interactive Systems Conference (DIS '12)*. ACM, New York, NY, USA, 514–523. https://doi.org/10.1145/2317956.2318034

[51] Hans Ulrich Obrist and Independent Curators International (Eds.). 2013. *do it: the compendium*. Independent Curators International.

[52] Judith S. Olson and Wendy A. Kellogg (Eds.). 2014. *Ways of Knowing in HCI*. Springer-Verlag, New York. //www.springer.com/us/book/9781493903771

[53] Yoko Ono and John Lennon. 2000. *Grapefruit: A Book of Instructions and Drawings by Yoko Ono*. Simon & Schuster, New York.

[54] Kavita Philip, Lilly Irani, and Paul Dourish. 2012. Postcolonial Computing: A Tactical Survey. *Science, Technology, & Human Values* 37, 1 (Jan. 2012), 3–29. https://doi.org/10.1177/0162243910389594

[55] Matt Ratto. 2011. Critical Making: Conceptual and Material Studies in Technology and Social Life. *The Information Society* 27, 4 (July 2011), 252–260. https://doi.org/10.1080/01972243.2011.583819

[56] Daniela K. Rosner. 2018. *Critical Fabulations: Reworking the Methods and Margins of Design*. MIT Press.

[57] Daniela K. Rosner, Margaret E. Morris, Ariel Duncan, Sarah E. Fox, Kathi R. Kitner, Ankur Agrawal, and Mei J. Chen. 2016. Designing for Movement in Public Life with Itinerant Probes. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems (DIS '16)*. ACM, New York, NY, USA, 1072–1082. https://doi.org/10.1145/2901790.2901913

[58] Phoebe Sengers, Kirsten Boehner, Shay David, and Joseph 'Jofish' Kaye. 2005. Reflective Design. In *Proceedings of the 4th Decennial Conference on Critical Computing: Between Sense and Sensibility (CC '05)*. ACM, New York, NY, USA, 49–58. https://doi.org/10.1145/1094562.1094569

[59] Phoebe Sengers and Garnet Hertz. 2015. Conversations in Critical Making | 2. Critical Technical Practice and Critical Making | CTheory.

[60] Herbert Simon. 1996. *The Sciences of the Artificial, Third Edition*. MIT Press.

[61] La Monte Young (Ed.). 1963. *An Anthology of Chance Operations*. (first edition edition ed.). La Monte Young & Jackson Mac Low.

[62] John Zimmerman, Jodi Forlizzi, and Shelley Evenson. 2007. Research Through Design As a Method for Interaction Design Research in HCI. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '07)*. ACM, New York, NY, USA, 493–502. https://doi.org/10.1145/1240624.1240704

[63] John Zimmerman, Erik Stolterman, and Jodi Forlizzi. 2010. An Analysis and Critique of Research Through Design: Towards a Formalization of a Research Approach. In *Proceedings of the 8th ACM Conference on Designing Interactive Systems (DIS '10)*. ACM, New York, NY, USA, 310–319. https://doi.org/10.1145/1858171.1858228