

	by		?		Social	
Speculative	by	Care				
Care			Critical Care		by	Speculative
	Speculative Design				by	?
	by		Critical World			
	by		?			
	by		?	Critical Design	by	Social
Critical Practice			World			?
Care			Critical			?
	by				Social	?
Social					Critical Practice	?
	by		?		?	
	by		?		by	Critical Design
Critical						?
Critical Design					by	?
						?
						?
						?
Practices			?		World	
				?	by	
				Critical Design		?
Speculative	by	Social	?	Critical	by	Social
			?	Critical	by	Critical Design
Human		Critical Design				?
Critical Design						?
Critical		Critical		World		?
						?
World	by	World			Critical	?
						?
		Discourses	?		Politics	?
			Critical	Critical Design	by	
					by	
Care	by					?
Critical						Speculative
Critical Design	by					
Critical	by		?	Critical Design	by	Discourses
						Critical
						?
Social		Critical Care				?
World	by	Critical Design	?			?
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			Grey Design	by		?
Critical		Re-visioning	Social	by		?
Post-Disciplinarity				by	Social	
Human				by		?
Human	by	by	?	Grey Design	by	
			Critical		by	
			Critical		by	?
Grey Design	by	by	?	Critical	Care	
			?	Care	Speculative	?
			?	Critical	Modal Critique	
Human			?	Critical	Re-visioning	?
			?	Care	Grey Design	
			?	Critical	Epistemic	
Ambiguity				Speculative	Critical	
Critical					by	
Social	by		?	Human	by	
Critical Design			?	Social		
Critical			?	Critical		
Human		Critical		Speculative Design	by	?
Care	by			Care	Re-visioning	
			?		Critical	
Social		Care	?	Critical	Modal Critique	
Critical Design		Modal Critique	?			?
					by	
			Speculative	?		?
Social	by		World	?		
Ambiguity	by		Speculative	?		
Care	by				by	
World	by	Critical Design	?		by	?
			?		by	
			?	World		?
			?		by	
Design Culture			?		Social	?
Modal Critique	by		?	Critical	by	
Politics			?	Critical Design		?

Unsettling individualized design

practice through
collaboration

Anja Grotens

1 Hackers & Designers was founded in 2013 by James Bryan Graves, Selby Gildemacher and Anja Grotens. The core member group in May 2019 consists of: Loes Bogers, André Fincato, Selby Gildemacher, Anja Grotens, Heerko van der Kooij, Juliette Lizotte and Margarita Osipian.

Introduction

The notion of something *done by design* highlights an aspect of design: that it is a practice of exclusion and inclusion, guided by intentions, personal preferences, and assumptions. Coming from a visual communication background, I experience modes of designing as processes of deciding what qualifies – through organizing of information, but also by deciding about tools, technologies, materiality, and forms of interaction. Encountering design as a practice that in its essence is a discriminating practice – a practice of prioritizing, classifying, and selecting – brings up questions of accountability. Drawing from experiences as a designer organizing collaborative situations for designing with and through technology, this text follows up on my presentation about critical collaborative design practice in May 2018 as part of the «Critical by Design?» conference. Seeking approaches to design that address and maybe counteract assumptions made within individualized design practices, I further aim to problematize methods and models of designing *together*. Rather than sustaining promises of design as a practice of solving problems and resolving contradictions through consensus-driven means of collaboration, I question whether designerly modes of collaborating could help us in differentiating the plurality of positions and voices inherent in designed artefacts as well as habitual processes of design. Can collaborative approaches to design unsettle normative, individualized design practice and offer modes of sustaining – rather than overcoming difference?

Confronting habits and assumptions

A concrete example of such a collaborative environment is the Amsterdam-based collective Hackers & Designers (H&D). H&D currently consists of seven core members¹ who initiate and host coding and design workshops while putting forth experiments in (self-)education. Through self-initiation and collaboratively learning and unlearning about technology design, H&D aims to challenge predetermined hierarchies in work relations and learning environments. While investigating the socio-technological implications of technology design, H&D explores the possibility of critical inquiry through acts of making. The term «making» is often used by H&D to describe the modes of production of workshop participants, who come from different fields such as design, art, and computer engineering. At H&D, workshops become test sites for exploring processes of co-designing technology.

The hands-on approach is important in that context. Fixing bugs, breaking, repairing, and repurposing hard- and software are considered means of acquiring new knowledge and skills, confronting assumptions, dogmas, and enchantments of technological constructions. A recurring topic of workshops is the way we process, publish, and disseminate information. H&D experiments with unusual, sometimes impractical tool combinations, and workflows such as HTML to print, speech-to-text technology, or automation scripts for producing video edits or page layouts, to question our reliance on expensive proprietary media software and other closed systems that inform our work. One example is the Momentary Zine installation, a publishing karaoke machine that leverages the voice as a main mechanism for creating content and designing a publication. When speaking into a microphone, speech will be recognized and transformed into text. Another part of the script will execute an image search according to the text. By using only the voice a publication can be «written», «designed», and «printed» (Fig. 6.1). By promoting a very practical

(sometimes impractical), self-determined, and collaborative approach, H&D aims to reframe the discourse about what is often described by tech-optimists as innovation. Every new prototype poses new questions, challenges common habits of how things are made, and demands further exploration.

In *Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective*, Donna Haraway argues against various forms of «unlocatable and irresponsible knowledge claims» (Haraway 1988) that cannot be called into account. By

posing the question of «Who is technology?», Haraway touches upon three aspects of knowledge production that become crucial to highlight when discussing sites and situations of collaborative making: the aspects of (1) the *unknown* in relation to technology design; (2) the *maker* – the person that can be held accountable; and consequently (3) the (im)possibility of an *actual encounter* with technologies and their makers.

I would argue the potentiality of a collaborative making situation is the space and tolerance for «not-knowing». Makers with different backgrounds, frames of reference, and experiences meet each other in a *new* situation.² The contingent nature of such an encounter brings about possibilities for asking naive but confronting questions, for instance: «Why would you do that?»

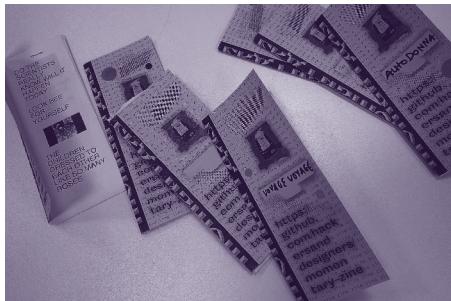


Fig. 6.1 Interactive publishing installation, The Momentary Zine

2 Ethymology of the verb encounter: 1. to come upon or meet with, especially unexpectedly: *to encounter a new situation*, 2. to meet with or contend against (difficulties, opposition, etc.), 3. to meet (a person, military force, etc.) in conflict (<https://www.dictionary.com/browse/encounter>).

3 https://hackersanddesigners.nl/s/Publishing/p/Counter_Interfaces.

A concrete example of a collaborative making situation is a Hackers & Designers workshop with the title «Control the Controller.»³ During the workshop, participants are asked to translate interactions with digital Graphical User Interfaces into interactions with battery-powered toys. Participants learn about simple circuitry through hacking (opening up and deconstructing) toys and connecting them to a digital interface. The workshop

starts with the participants looking at the digital tools they are most familiar with. As a graphic designer and image maker this could be, for instance, the media software Photoshop. The participants are asked: «What are Photoshop's strategies of mediation? How does the Photoshop interface translate binary computational processes into user-computer interaction? What does the interface communicate to a user and to the machine?» By translating intuitive interactions with software interfaces into slow or clunky interactions with physical toys, participants enter a mode of estrangement and defamiliarization – breaking with the habits embedded in their everyday, ordinary making processes.

In *Designing Engineers*, Louis Bucciarelli draws a crucial distinction between a user's and a maker's encounter with technology:

The way in which one sees how technology works is very much a matter of the nature of the encounter – whether it is in passing, intense in bricolage or dictation, or lay-political. Our relations to and hence our perspectives on technology may vary, but in general, as user, traveler, player, viewer, or tender, we do not have the same connection to technology that its makers have. (Bucciarelli 1994: 11)

Sites of collaborative making bring about the possibility of actually encountering technologies, their makers, and their ways of making things. Those sites introduce the possibility for second-guessing and confronting habitual ways of making.

The possibility for confrontation that lies in the nature of such encounters and the potential for a change of perspective points at the question: Does the frictional potential of encounters within collaborative making situations signify critical conditions for making? In *The Limits of Critique*, Felski delineates critique as a state of suspicion, which springs from a lack of knowledge: «To suspect something, after all, is not to know it for a fact» (Felski 2015: 38). Collaborative making situations bring about states of suspicion. Taking into consideration the origin of the term «encounter» – a meeting of

adversaries, an undesirable or challenging occurrence – collaborating makers potentially become temporary adversaries – «sharp-eyed and hyperalert; mistrustful of appearances» (Felski 2015: 33).

Are we still designing?

Shifting the focus away from designed objects to processes of design is not new in the domain of design. Socially and politically engaged designers from fields of urban planning, architectural design, and software development propose participatory or user-centred design in order to counter detached and individualized design approaches. Rather than approaching end users and citizens as consumers, participatory designers include non-designers in the design process. «In most cases, designers' status as experts confers relatively greater authority in decision-making than lay persons» (Hirsch 2008). Although there are examples of participatory and user-centred designers actually succeeding in democratizing design processes, participatory approaches to design run the risk of limiting lay persons' participation to passive roles, including filling out surveys and joining focus groups (Groten 2019). Unlike the above-mentioned collaborative design situations, participatory design methods are result-oriented – working towards designerly approaches to solving «real» world problems, informed by «real» needs of the end user. Encounters within collaborative design situations might draw from ideas of participatory design in the sense that they are opening up processes of technology design. However, distinctions such as between the user and the maker are barely challenged in participatory design practices. Processes are designed in ways that guarantee an outcome. The question «What is a successful participatory design process?» is answered by evaluating the final results, which may take the shape of an actual prototype or product, or a resolution of a conflict. But what can we learn from the processes themselves? What are the implications of a designer's doings while they are still taking place?

In *Sad by Design*, Geert Lovink delineates: «In a design context, our aim should be to highlight *the process in which a designer focuses on the consequences of the current situation instead of dealing with the causes of a particular problem*» (Lovink 2019). In order to focus on the consequences of a current situation, makers would actually need to become vulnerable. Only then could they potentially be challenged while they are making. A horizontal approach to collaborative making opens up possibilities for collective understanding of inner workings of technology, including their intersocial implications. According to Carl DiSalvo,

4 «It just works. Seamlessly.» Video edit of Steve Jobs introducing Apple products as flawless (Moisescot 2009).

a distinction needs to be made between the prototype, as an object, and prototyping, as an activity ... The object is crucial, but it is a product of the social process of conceptualizing and expressing the wants

and needs – the conditions, expectations, and values – of those participating in the activity of prototyping. ... The activity of prototyping, then, is dialogic in that its structure is one of exchange and its purpose is the discovery and elucidation of the conditions or factors of a design. (DiSalvo 2014: 96–105)

The process of tinkering becomes more important than the solution or product this process might or might not bring about.

Can reflections on design really be calibrated – and instead of looking at finished works pay attention to conditions in which work is produced? If achievements are not granted by designed objects, if we designers produce *disposals* rather than proposals, can we then still speak about design?

The designer as a host

As accomplices to the innovation economy, designers are accountable for the narratives that inform common understandings of technology. Instead of questioning the conditions that bring about technology design, those narratives still promote objects of technology design as icons and glorify charismatic (often male) lead designers, artists and developers, who still occupy central positions in public representations of technology.⁴ As an attempt to antagonize individual «genius» star designers, design practice can be articulated more explicitly around the accumulation of social entanglements.

Design operates in close relationship with social, cultural, economic, and technological conditions. However, utterances of design processes will always disregard the complex nature of processes and conditions they are informed by. We are, however, lacking tools for articulating and evaluating design *in context*. As an attempt to approximate a possible articulation of design as a practice that brings about situated encounters, I would like to propose the idea of the *designer host*. By moving into focus social relations inherent in design, the designer host acknowledges and negotiates complexities and dilemmas of design processes such as power dynamics, contestation, unresolved conflicts, and contradictions that speak to embodied and tacit knowledge.

A designer host could be one person or a group of people who ensure an environment that – under certain conditions – can be

5 In relation to «the current direction of academic institutions, and the attempt to rethink the structures and spaces of learning on a fundamental level», Tom Vandepitte and Tim Ivison assembled and analyse extracurricular initiatives that explore education as a form of political engagement (Ivison/Vandepitte 2013).

inhabited by others. Drawing on Bruno Latour's description of design as a modest practice (Latour 2008), the designer host is invested in, and differentiates processes of genuine collective making from singular, strongly individualized design practices.

However, the notion of «modesty» in the more common understanding as subordinate

needs to be reconsidered. Besides determining the temporality of an encounter (a host–guest relationship is temporary, it has a beginning and an end), a designer host implicitly introduces rules and forms of control over the guests. By taking on the role of the host, the designer makes the other the guest (Locher/von Bismarck 2016). Nonetheless, the designer host is not merely output-oriented, does not solely create objects, artefacts, or hermetic concepts, but instead allows for a reframing of design towards a practice that gives space to encounters that might be ordinary, eventful, confusing, or confronting.

The false promise of collaborative making

The workshop has become an important format for initiatives organizing extracurricular bottom-up collaborative making situations.⁵

Yet the workshop format as such has hardly been examined critically. In the article *«The Workshop and Cultural Production»* (Groten 2019), I accentuate characteristics, objectives, and specificities of different collaborative making situations to investigate if workshops can create critical and constructive conditions for working with technical objects. *Workshopping* as a popular mode for cultural production offers a framework for social gatherings, for producing and sharing of knowledge. However, there seems to be a lack of specificity in articulating the premise of the workshop format, including its characteristics and objectives. Interrogating other regular workshoppers, I started to wonder about the *workshopization* of cultural production. Is there a «workshop market» and is that market exhausted? Is there a general disappointment in what workshops are actually capable of?

One branch of the workshop is the *hackathon*. The hackathon draws on hands-on iterative prototyping and usually focuses on a specific technology or programming language. Participants are unpaid and work towards concrete solutions in a short space of time, and in a competitive setup. Hackathons have been criticized for exploiting the willingness of participants to perform free labour (Griffith 2018). Deriving from the domain of software development, the hackathon aims at producing prototypes quickly (rapid prototyping).

Hackathon-like workshops, which also became popular in cultural and artistic domains, exemplify a dilemma of workshops I frequently encounter. There is a general notion of the workshop being a highly productive space and workshops being successful only if a tangible result has been produced: a product or prototype that can be presented to a wider audience.

I would argue, however, that situations of collaborative making should not be measured by the products that are produced. Instead they need to be seen as social prototypes nurturing discussions and disagreement about the implications of the technology they are dealing with. Engaging with open, yet potentially confronting approaches to collaborative making may incite «socio-technical literacy that is necessary to reconnect materiality and morality» (Milestone 2007: 175–198). If situations of collaborative making are seen as social prototypes that require attention and iteration, we (makers) will be provoked to re-evaluate and calibrate our perspectives on accelerated design processes and their entanglements in society.

Social prototypes

The explicit collaborative approach, as put forward by many art and design initiatives such as Hackers & Designers, implies that being limited to one's own perspective, education, skills, and jargon, a single maker is incapable of thoroughly exploring the many facets of technology design on their own. Through sharing processes of making things, (mis)understanding about technology design may come to the fore.

According to Donald A. Schön, makers tend to draw on their tacit knowledge (Schön 1988). They have learned how to do something well, how to undertake sequences of skilful judgements, decisions, and actions, a process he terms *knowing-in-action*. They are able to make things «without thinking», so to speak. During encounters in collaborative making situations this tacit knowledge is made public. Habitual means and skills suddenly become subject to attention and critical examination through a partaking in each other's ways of doing. Hence, by exposing the making process to others, the maker might be disrupted and challenged. That disruption might be pleasantly surprising, or unpleasantly disturbing.

Schön calls the surprise effect of errors and disruption while executing a skill *reflection-in-action*. When this reflection happens during the collaborative making process, the makers involved do not reflect on something that happened in the past. Instead, reflection happens while something is being produced and therefore has immediate consequences for what is being made. The *thing* that is being

made is shaped and reshaped, but also the maker's consciousness will be transformed by these contingent disruptions.

It would of course be too simplistic to suggest that solely the presence of a multiplicity of perspectives in a collaborative making situation could eventually result in recognition and sustaining of those positions. However, the suspicion about the presence of difference and the awareness of the possibility of difference to be expressed creates an expansion of self-awareness of one's own limits. The suspicious collaborator will have to acknowledge that «[t]he knowing self is partial in all its guises, never finished, whole ...; it is always constructed and stitched together imperfectly» (Haraway 1988: 586). However, according to Haraway, pronounced partial perspectives open prospects for positioning – locating oneself and the other, situating encounters, and acknowledging the limitations of one's own and the other's perspective. The seeking of knowledges «ruled by partial sight and limited voice – not partiality for its own sake but, rather, for the sake of the connections and unexpected openings situated knowledges make possible. Situated knowledges are about communities, not about isolated individuals» (Haraway 1988: 590).

Situations of collaborative making hold the potential to turn into sites for exercising and challenging positions: opposing, contradicting, and confronting. According to Lilly Irani, assistant professor of communication, science studies, and critical gender studies at the University of California San Diego, «subjects and social orders are reproduced and valorized in practices of technological production. These forms of technologically productive social life emerge at the intersection of systems of gender, economy, and politics» (Irani 2015: 799–824). Encounters within collaborative making situations are social prototypes that emphasize technology being human-made and inhabiting social orders. Social prototypes thus need investigation and iteration.

Sites of contestation

Situations of collaborative making can create distinct conditions. Encounters within situations of collaborative making might invoke allies; however, such an environment could also turn into a site where adversaries question and disrupt each other's design processes. By exposing the making process to temporary suspicious publics, tacitknowledge might be called into question through reciprocal challenging of assumptions ingrained in disciplinary habits of how things are done. The political theorist Chantal Mouffe proposes a pluralist approach to political processes as a way to resist generalizing notions of neutrality

and the common good. Design researchers such as Carl DiSalvo and Tad Hirsch are building upon Mouffe's theories about agonism and articulate specific lenses and branches of critical design practice. Hirsch coined the term *contestational design*, which refers to activities that are strategic and «engage in advocacy work in collaboration with and/or on behalf particular players in adversarial political processes» (Hirsch 2008: 11). He depicts the term *contestation* as an approach to design that privileges antagonistic political processes as mechanisms for social change. The similar notion *adversarial design*, which Carl DiSalvo (2012) termed in his corresponding book, also draws on Chantal Mouffe's theories about pluralism and agonism, and proposes strategic use of conflict as part of design processes.

In *Adversarial Design*, Carl DiSalvo investigates the political implications of concrete technology design projects. *Contestational design*, as Hirsch proposes, follows a more holistic approach – cutting across designers, artefacts, and processes. Where DiSalvo focuses on agonistic approaches to design, as potentially creating awareness of a plurality of positions by tolerating an adversary as someone or something to learn from, Hirsch speaks about conflict in design in more radical terms and more often about antagonism (relationship of enemies) than agonism (transformation of antagonism to agonistic pluralism). Hirsch proposes a conflict-driven approach to design – an «imperative for design as a politically engaged, partisan practice» (Hirsch 2008: 27). Hirsch sees design as «an openly partisan affair, less concerned with building consensus than with winning over opponents» (Hirsch 2008: 26).

Hirsch's and DiSalvo's proposals for agonistic or antagonistic design approaches challenge many conceptions of design as a practice and propose a problem-creation rather than a problem-solving approach to design. However, Mouffe highlights a «pluralist democracy [as one that] requires the creation of collective identities around clearly differentiated positions» (Mouffe 1998: 17). That is to say, agonism and notions such as the adversary seem to presuppose already established positions, which can only be opposed if they are articulated. However, processes of making things are inherently messy and positions not always explicit or apparent. By proposing agonistic and contestational means as design strategies do we not presume a privilege and ability of taking a position and/or oppositions? What about the indecisive, less informed, and uninformed? What about those who were not invited to participate? When we talk about an agonistic approach to design and design processes, are we not taking for granted a formalized situation, while many design decisions are made in an informal context, intuitively and without explicit articulation?

From the perspective of messy collaborative design practices, a frictional lens might offer an entry point to those unresolved questions, decisions, and dilemmas that come about during moments of encountering technologies and their – potentially adversarial – makers.

Considering the adversary as a suspicious companion, whose wariness derives from a lack of knowledge rather than a clearly defined position, introduces an important emotional and affective dimension to the articulation of a collaborative design process. The potential for disruption of the making process paired with contingency and the possibility of dissension provokes socio-technological literacy informed by human incompatibilities.

In conclusion, notions such as *friction* or the adversary will not repair the image of participatory design – a practice that has been mainstreamed and commercialized. Nor are these notions offering an alternative recipe for efficient, consensus-based decision-making models for design processes. On the contrary, the problematization of collaborative design approaches should unsettle and complicate making processes, including the possibility for non-resolution and never-endedness.

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