Toward Appropriating Tools for Queer Use

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Abstract

What does it mean for a tool to be queer, and why should we be concerned with queer tools? This short paper posits a manifesto toward building tools for queer use, misuse, and appropriation. Drawing from Sara Ahmed's notions of queer use as acts of subversion [2], queer tools counter norms through their use and misuse. In response to Shaowen Bardzell's Feminist HCI paper [3], I argue that we can strengthen qualities of participation, pluralism, and self-disclosure in tool design by intentionally allowing for their appropriation—and why, accordingly, we should be prioritizing studying and evaluating misuse as well as use. It is my hope this manifesto opens up a discussion around the seeming paradox of designing for appropriation.

CCS Concepts

• **Human-centered computing → Interactive systems and tools**.

Keywords

queer HCI, tool design, appropriation, misuse

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1 Introduction & definitions

This manifesto is concerned with tools, use, and queerness. Some definitions to start: a tool can be defined as any external object that increases our physical abilities (e.g., a hammer) or cognitive skills (e.g., a calculator) [21]. While this manifesto can be true of most tools, it hypothesizes a future particular to *software* tools—tools, often cognitive, that harness computational abstractions for their usefulness.

Speaking on software tools, McCullough writes "[a tool is] a moving entity whose use is initiated and actively guided by a human being, for whom it acts as an extension, toward a specific purpose" [20, p. 68]. The emphasis in this definition is on *use*: tools can be defined through how humans use them to extend their capabilities and skills. Tools may used or *misused*: used in a way counter to the intended norms of the tool. The term *appropriation* is closely related to misuse—appropriating tools is a kind of misuse that has generative ends, where the tool still acts as an extension of abilities. One would not appropriate a cup by shattering it to pieces out of anger, but breaking a cup is misusing it. However, one could appropriate (and misuse) a cup as a plant potter. One could also appropriate a shattered cup as a material for kintsugi (the art of pottery repair with lacquer). All appropriation is misuse, but not all misuse is appropriation. Tools may also be used by multiple users throughout their life time; for instance, work in unmaking e-waste advocates for designing devices with (re)user interactions in mind, acknowledging that artifacts and tools may encounter second lives after they have been appropriated by repairers or upcyclers [18].

What does it mean for a tool to be queer? This work takes Light's definition of *queering* as "investigating resistance to the status quo" [16]. Notably, queerness is not a static, inherent property of tools, but rather comes through action. I parallel Chauncey's argument that there are no queer spaces, "there are only spaces used by queers or put to queer use" [7]; similarly, there are no queer tools, only tools used by queers or put to queer forms of use.

To put a tool to queer use is to use it subversively and in defiance of norms. HCI researchers have also called for using methodologies like disorientation [5], friction [22], counterfunctionality [23], defamiliarization [4], and prefigurative counterpower [13] to question norms and counter power. Ahmed writes "to queer use is to make use audible, to listen to use, to bring to the front what ordinarily recedes into the background" [2, p. 198]. Listening to use—purposefully encountering tools through what phenomenologists call moments of "breakdown" [29]—is to use tools queerly. For queering the use of software tools in particular, making the invisible visible is often in tension with the cultural norms of how software should serve as useful and thoughtfully designed black box abstractions. Users do not have concern themselves with the internal workings of a tool when designers work hard to craft technical and design solutions (often times, this is a project's "research contribution"). Yet while this opaqueness prevents tool users from straying from what the designer intended to better strengthen their cognitive skills, it is this opaqueness that also prevents queer use.

If queerness is about derailing and subverting norms, analyzing tools through a lens of power is another way we can supplement how we question norms. Li et al. argue that creativity support tools enact normative ground, which in turn shapes users' behaviors while using the tool, and is a way tool designers have power over their users [15]. While the authors don't specifically tie their argument to queer use, one way to interpret this research is through Ahmed's concept of "for is before." Ahmed argues that throughout evolution, biological forms have been a result of behavioral norms; put simply, norms come before forms and form follows norms [1]. Ahmed offers an example of how compulsory heterosexuality creates a "built-in-design" for our reproductive organs; therefore, a queer usage of reproductive organs stands in defiance

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of this norm and end-goal [2]. While Light talks about queer tools as being "technologies of identity" [16], here, we are concerned with tools as they pertain to being technologies of identity *formation.* If forms follow norms, then our identities are shaped by the norms enacted by our technological tools. Researchers into peripheral practices [24] inform the design of technology by studying the identities of marginalized communities; in contrast, studying and supporting queer use is studies the marginalization of *interaction.* A marginalized user may engage in dominant forms of use, or a user from a dominant group may engage in peripheral forms of use (i.e., misuse).

Finally, incorporating Bardzell's argument that even "designers that take an advocacy position [...] run the risk of imposing their own values on users and other stakeholders" [3], a queer use of tools could be in opposition of designer imposed values. In this manifesto, in line with previous calls for more power aware research, I argue that designing for appropriation opens up a path to avoid the power imbalances that occur when designers impose their values, norms, and forms on users and other stakeholders, no matter how virtuous those values may be. Appropriation is the generative path forward to queer use.

2 Tools for queer use

Why should HCI researchers be concerned with designing tools for queer use? One argument is that if we consider the work of privileged researchers as the status quo to be eventually undermined, tools for queer use can be a serious step toward truly acknowledging the agency and power of the "end-user." This value echoes those of researchers who have called for a grassroots culture of technology practice [10] where end-users and organizers can use technology that matches their beliefs. Butler pushes for queerness as opening new ways of living, rather than simply critiquing existing ones [6]. Valuing queer use is valuing the ways a tool may transform through misuse and appropriation—through the hands of users—which is one step toward undermining power differentials. Valuing queer use demonstrates "a respect for the expertise of different perspectives [...] regardless of technical know-how," furthering the feminist HCI quality of participation [3].

Queer use may additionally result in even more rich interactions. Misuse and appropriation are often stumbled upon through bottom-up, tinkering processes [28], which requires working with and reflecting on the materials at hand. Figuring out exactly *how* to queerly use a tool, then, foregrounds a deep interaction with a tool's material qualities. Ahmed argues, "queer uses, when things are used for purposes other than the ones for which they were intended, still reference the qualities of a thing; queer uses may linger on those qualities, rendering them all the more lively" [1]. Focusing on how queer use can "recover a potential from materials that have been left behind," [2, p.208] I argue, is a form of studying queer pleasure and joy, one research area HCI researchers have recently called for further investigation [25, 26]. Queer use also furthers the feminist HCI quality of pluralism, as careful material encounters with tools is a form of "embracing the margins" [3]—the margins not just of identity, but of the qualities of the tool itself—and can result users putting tools to different, queer, and creative ends.

2.1 Queer use versus misuse

I want to offer what I believe are two distinct flavors of queer tool use from a tool designer's perspective, in cycle with each other. In analyzing the queer use of tools, it is important to distinguish between if (1) the designer or (2) the user is doing the queering.

(1) Designers design tools that specifically counteract existing normative ground (e.g., the norms of other tools) to support queer use. The user's use is "proper" in that it aligns with how designers intended the tool to be used (for instance, in subversive ways).
(2) Users appropriate tools regardless of their designed intentions. The user's use is "counter" to how the designer intended the tool the be used: it is *misuse.*

As a concrete example, consider the chest binder, a tool transmasculine individuals commonly use to flatten the appearance of their chests. Before modern day commercial chest binders were first mass produced roughly 20 years ago [12], transmasculine individuals, drag kings, and even cisgender men who wished for flatter chests (such as athletes) misused ace bandages, plastic wrap, or other physically unsafe tools—an example of the second category of queer misuse. This need to misuse decreased once chest binders were commercialized to address this product gap—an example of the first category of "proper" queer use. Although people who use chest binders are not misusing them, they are still using them toward queer ends by subverting assigned gender norms or bodily expectations. And the cycle of (mis)use can continue again through decorating (misusing) commercial binders to be flashy and visible, subverting the norm that chest binders should be hidden under clothing. Tools are misused against norms, new tools are created to establish new norms through their use, and they too are eventually misused.

I would argue that HCI research has forayed into supporting (1), but that (2) remains an unaddressed research challenge. I claim that the terminology around (1) is more closely aligned with "designing for subversion" while (2) is "designing for appropriation." Light argues that we can indeed design for enhanced subversion ("to design for and with a little mischief"), but makes a point to differentiate it from appropriation [16]. Examples of opportunities in designing for subversion—designing for queer use—beyond tools that specifically target queer users include:

- Designing tools for community coalition around subversive values (for instance, to trouble climate change [17]).
- Designing tools creating opportunities for (the dissolution of) structure (for instance, SketchPath [9] could be said to queer the practice of ceramics by grounding it in interactions of drawing).
- Designing tools that advocate for a plurality of viewpoints and invite further interpretation (for instance, different ways of describing tacit knowledge [8]).

While these are exciting research directions, they do not address cases when researchers fully let go of the power they have over their tools. Appropriation, though less studied and a harder problem to technically support, also supports queer misuse.

2.2 Unpredictable appropriation

In contrast to designing for subversion, in which designers may have some control over what kind of contexts subversion takes place, designing for appropriation involves designing for *unpredictable* use contexts. Often times, tools are appropriated in the context of connected *ecologies* [19] of tools; tools are opened, gutted, and reshaped into new and imaginative contexts. The act of appropriating a tool is an act of queer agency and queer desire, as it is giving rise to new and unique norms and forms in a world that was not made for them.

Appropriation, just like subversion, can be in critique of or counter to existing norms and power structures. But appropriation is almost always generative: an auxiliary goal of appropriation is to create something new, whether it be a new artifact with the appropriated tool, a new tool, new norms, or new meaning. I postulate that appropriation takes two forms: (1) misusing the tool to generate new unintended or subversive objects, or (2) through appropriating and deconstructing the tool itself.

(1) Users may appropriate the tool to make unexpected or subversive artifacts. One such example is when HCI researchers queered Figma by using it to create an interactive narrative "Manif-mess-to" (a task normatively "better suited" for an interactive fiction tool like Twine, rather than a "professional" UI design tool like Figma) [11]. While they still used Figma's existing functionality, here, they queered its use through subverting the expectations of the kind of artifact that should be produced with the tool.
(2) Users may also appropriate the tool itself: deconstructing it, picking and choosing parts they want, combining it with other tools. One advantage of tools that operate in the physical world is that the material affordances of the tool, or upon which the tool acts, are more visible. Directly changing and reflecting on materials builds the deep understanding necessary for queer misuse. For software tools (in which the material is software), users without source code access or technical knowledge must grapple with understanding and reusing black box abstractions to appropriate the tool.

For example, in a study centered around a queer breakup [14], Alexa mistakenly conflates the voices of queer individuals as that of the same person. To rectify this issue, the authors recommend a consent-forward, hyper-personalized clarification process with Alexa—with the caveat that queer people might not actually want this "correct use" as it sacrifices their data privacy. To me, the authors had no choice but to use Alexa queerly due to the fact that it is a black box machine learning system. But I also wish for a future where users are allowed to inspect, understand, and change—that is, appropriate—Alexa to suit their needs and identities.

Bardzell writes about the quality of self-disclosure by starting that "software gives us an identity that we are pressured into accepting" [3]. Appropriation lets queer users better carve out their own identities by changing the software. Software shapes us as much as we shape it. Greater queer agency may stem from the ability to appropriate, rather than solely misuse, tools.

2.3 Evaluating queer use

The previous sections gave a theoretically motivated account of what appropriating tools—an act of queer (mis)use—could look like and enable. This section moves toward an potential agenda for practice supporting both queer use, misuse, and appropriation. I believe the following is of methodological concern around evaluating the queer use of researcher built tools:

(1) Prioritize ecological validity in empirical studies. Studies in which researchers bring participants into lab settings echo Ahmed's claims about how measuring and prescribing "correct" use reinforces dominant power relationships [2]. Quantitative evaluations, such as collecting likert scale responses for predefined tasks, reinforce "proper" use as researchers specify goals and develop metrics to measure intended use. Instead of justifying our research by what is proper, can we justify it by the potentials it unlocks, originally unknown to us?
(2) Make room for thickened descriptions of misuse. Instead of justifying why a tool is singularly the best tool for a task, consider the tool in a larger ecology [19] of other tools. Misuse may be a process longer than the logistical endpoint of a project's evaluative period as new needs and norms emerge. This highlights the need to develop long term relationships with a smaller set of users, rather than aiming for short term statistical significance.

3 The paradox of "designing for" appropriation

As previously mentioned, appropriation stems from the actions of users, not the intentions of designers. Returning to Ahmed, who writes, "when use becomes proper, queer use becomes misuse. Perhaps queer use is always a potential because use cannot be properly proper," [2, p. 208] reveals the paradox of designing for appropriation: it is the user who discovers the potential in tools, not the designer. Thus, can we truly "design for" appropriation?

I am of the personal opinion that it may be constructive to treat appropriation as a second-order value for design. For instance, researchers who support software appropriation call for software to be modular, decomposable, tailorable, and support meta-design [27]. Modularity may not be a critical design principle toward a tool helping humans achieve their goals, but it does support breaking apart and remaking tools in the context of larger ecologies. Queerness and queering are fluid: just because someone is currently using a tool queerly does not mean they will not return to "proper" use the next time. Appropriation allows for people to meet software—and software to meet people—at the time and place that feel right.

In the HTTF panel discussion, I would love to expand upon examples of norms and power in interactive systems, how queer use can be a generative framework toward designing better/more equitable/more mischievous [16] tools, and hear participants' opinions on the paradox of "designing for appropriation": is it possible? Is it worth pursuing? If so, how would we begin to do so, and what must we remember?

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