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ANTH 112

14 December 2020

Building Products with Empathy: Reconceptualizing the Human-Centered Design Process as an
Application of Theories of Personhood

It is no secret that the technology industry tends to promote systemic inequality, whether in terms of the lived experiences and identities represented within product development teams, the stakeholders and communities for whom new products are developed, or even the very processes by which these products are developed. In 2019, less than 1% of employees at U.S. software companies were Black, 2.6% of total capital invested in venture-backed startups in the U.S. went toward female-founded companies, and less than 1% of these funds went toward companies founded by women of color (Dowling, PitchBook, U.S. Bureau of Labor Statistics). Many technological tools, applied in situations such as voter suppression campaigns or predictive policing algorithms, directly contribute to discrimination in civic engagement, law enforcement, employment, housing, education, and more (Harrison). And competitive business ecosystems can cause companies to focus on delivering products that serve primarily privileged audiences at the risk of underserving traditionally marginalized communities, thereby perpetuating existing inequalities, an industry-specific problem that is perhaps most clearly illustrated by, for example, the numerous financial technologies that analyze trade on the stock market despite only around 55% of Americans owning stocks, a figure which itself highlights even further disparities as older white Americans with high incomes are far more likely to own stocks than those of other demographics (Ghilarducci). As a broad generalization, if technology

companies do not actively consider the impacts that their products may have on specific groups, then they may end up creating products that either fail to serve user needs or actively cause harm to communities that they may not have considered.

One of the many ways that product managers have tried to combat this trend is by embracing human-centered design, a problem-solving approach that maintains an "obsessive focus on understanding the perspective of the person who experiences a problem, their needs, and whether the solution that has been designed for them is truly meeting their needs effectively or not," ideally such that "the very people who experience a problem the most are a constant part of the design process, and when possible, become part of the design team itself" (DC Design). Effective human-centered design encourages product managers to adopt a humble mindset, understand how their personal biases may influence their perceptions of users' needs, and improve their understanding of users' experiences throughout each phase of the product life cycle, including discovery, alpha and beta prototypes, and live deployment and iteration (DC Design, IDEO.org, GOV.UK, Ontario.ca). Therefore, products can represent more diverse voices, which can then uplift marginalized communities rather than maintain the status quo. Having been first popularized by design company IDEO in 2003, the notions of design thinking, user experience, and human-centered design — all of which have "become synonymous with taking a user-centric approach to creating products and services" — have evolved into "the tech industry's most overused buzz phrases" as key components of the product development workflows of companies such as Apple, Google, Samsung, Amazon, and many others (Chandler). Yet while human-centered design can be a powerful tool to mitigate systemic inequality in technology — particularly in fields such as civic technology, government technology, and biotechnology — many companies use it primarily as a mechanism to "delight

and truly connect with customers and users" without consideration of social impact, or perhaps more problematically, as a buzzword to give off the illusion that they are socially responsible and innovative without actually incorporating human-centered design processes into their workflow.

Given this pattern, human-centered design has occasionally been decried as snake oil: flashy and promising, with no real substance. Considering that many of the user research techniques employed in human-centered design were originally adapted and rebranded from the disciplines of anthropology and sociology, I aim to address some of these concerns by reconciling human-centered design practices with their anthropological origins and justifications through careful examination of the arguments of two prominent theorists of personhood: Ian Hacking, who describes the effects of assigning categorizations onto groups of people, and Charles Taylor, who examines the implications of having personhood. I will then map their theories onto various practices used in human-centered design, including market segmentation, co-designing with communities, and the language used by companies that claim to apply human-centered design. From Hacking and Taylor's arguments, I will conclude in the appendix with a set of considerations that interrogate whether one's product development workflow properly adheres to the principles of human-centered design.

We begin by exploring the notion of "making up people," an idea originated by Ian Hacking, who is widely known for bringing a historical approach to the philosophy of science. Hacking describes a conflict between nominalism and realism, with the former ontological framework arguing that distinctions between classifications are entirely arbitrary — for example, the differences between an apple and an orange are only significant because we name them so — and the latter emphasizing that distinctions between kinds of things would still exist even without names — so apples would still be apples even if we didn't call them "apples," and the same

would hold true for oranges. Hacking, acknowledging the strengths and weaknesses of both frameworks, instead endorses dynamic nominalism, which states that "a kind of person came into being at the same time as the kind itself was being invented." Essentially, he believes that "people spontaneously come to fit their categories," and that while it may be beneficial in some circumstances to acknowledge that objective qualities exist, it is nonetheless true that "our spheres of possibility, and hence our selves, are to some extent made up by our naming and what that entails."

This carries deep implications for market segmentation, or the practice of defining categories of users such that user research can sufficiently capture the unique needs of all kinds of members of the target audience. Indeed, the very act of identifying these categories carries the risk of allowing personal biases to detrimentally impact the user research process and the way in which certain communities then interact with the product. At first glance, this seems relatively innocuous — after all, most audiences can generally agree on the overall coherence of social labels like "woman," or "Hispanic," or "middle-aged" — but discrepancies can arise in understanding the lived experiences of these groups. As Hacking acknowledges, while labels can provide community and common understanding of how certain traits can impact one's lived experience, they can also be "intimately linked to (social) control" in the political and historical sense. He emphasizes that "each category has its own history," which can be analyzed from the vector of "labeling from above, from a community of experts who create a 'reality' that some people make their own," or from that of "the autonomous behavior of the people so labeled, which presses from below, creating a reality every expert must face." Both vectors play a key role in the feedback loop by which people supposedly come to "fit their categories," as while lived experiences are valid regardless of whether they are named, having names for shared traits

can nonetheless impact the perception and expression of these traits. What type of behavior is presumed to be appropriate for people who are "young," or "LGBTQ," or "college-educated"? And how can product managers make sure that these preconceptions do not unfairly skew the products that are developed or the ways that communities are expected to interact with these products?

A similar dichotomy of vectors of analysis can be applied to human-centered design. As highlighted by the vector of "labeling from above", it is important to be aware of how one's personal biases may influence the categories assigned in user research and their sociopolitical histories — and, in turn, the products that are then developed for particular communities may end up shaping the lives of these communities in reflection of these biases. This is particularly pertinent given the transformative power of technology, not only as a tool to fulfill specific user needs, but as a mechanism that can embed itself into users' lives in unpredictable ways. Take social media platforms, for instance. Ostensibly, they provide connection and validation, allowing users to keep in contact with friends, share information, and craft a digital persona. Yet we also see vibrant conversation surrounding how social media has compelled businesses to curate their online presence as part of their marketing strategy, how social media has impacted mental health by quantifying social approval and popularity to an arguably toxic degree, and how social media has revolutionized politics, whether in the dissemination of political (mis)information or in the organization of campaigns and grassroots movements. If it is true that technologies like social media have drastically changed our lives, then it is critical that such technologies are developed with procedures in place to minimize the effects of developers' personal biases, an issue which is further exacerbated by the glaring lack of diversity in the technology industry itself.

Equally important, however, is the vector of "the people so labeled." Hacking suggests that there is a reality that "every expert must face" no matter their preconceptions. In a sense, this is true for human-centered design because ineffective design will result in lower customer satisfaction and therefore decreased profitability, which provides a direct incentive for product managers to care about their users' realities, at least pertaining to the usage of the product. However, when the goal is not primarily profitability but rather social impact, the feedback mechanism by which product managers "must" confront their users' objective realities becomes slightly more ambiguous. In both cases, human-centered design rewards those who adopt a humble mindset and conduct user research with the understanding that users themselves are the experts of their own identities and best understand how these identities impact their own lives — but given that key performance indicators measuring social impact are far more mission-specific than those measuring general financial success, it is the responsibility of the product manager to take the extra effort to ensure that users' lived experiences are properly represented by the labels that are chosen.

In addition, Hacking's reconciliation of nominalism and realism by using dynamic nominalism provides insight on the classic user research problem of representative sampling. How do we know whether user interviewees are representative of their designated categories, and whether the categories we choose are specific enough to be meaningful? Moreover, how do we reconcile users' individual-specific insights with any broader patterns that emerge? For instance, sweeping racial categories like "Asian" have been shown to mask deeper inequalities and specific histories within these categories, as pronounced economic gaps continue to significantly distinguish the lived experience of, say, the Cambodian or Laotian communities from that of the Chinese or Indian communities (Weller and Thompson). The traditional

nominalist view of social labels would dictate that Asian peoples do not inherently have anything in common with other Asian peoples save for family origins within the arbitrarily drawn boundaries of the continent of Asia; the traditional realist view would dictate that Asian peoples have certain objective traits in common, whether genetically, culturally, or otherwise. If we treat dynamic nominalism as a reconciliation of these two viewpoints, then I believe the dynamic nominalist view would argue that the label of "Asian" is not inherently meaningful unless it is assigned meaning, in which case it becomes an entirely valid social identity — or as Hacking puts it, a "kind of person." This approach, too, is context-specific. Perhaps in a predominantly white institution, Asian communities can find enough shared threads in their lived experiences that "Asian," as a label, holds meaning to them, and would therefore hold value to a user researcher. On the other hand, perhaps on the continent of Asia itself, people may identify more closely with their country, thus indicating that a user researcher would gather more valuable information by disaggregating demographic data into specific national origins. After all, user interviews are conducted with individuals, not entire communities — and whatever labels hold the most meaning to the user should also yield the most value to the user researcher. Having an open mindset throughout the process of market segmentation allows the user researcher to maximally engage with the "spheres of possibility" that Hacking argues each individual molds through the act of naming. Importantly, however, Hacking wonders what it could mean "to say that possible ways to be a person can from time to time come into being or disappear," relegating the responsibility of labelling to temporal forces beyond any individual's control. To bring Hacking's question even further, what would be the consequences of allowing possible ways to be a person to be entirely self-directed, trusting individuals to process the labels bestowed upon them by society and choose those categorizations that align closest with their values? In the

realm of human-centered design, I believe this mindset would lead to more effective and socially impactful products.

Taylor offers a similar framework of analysis through his theory of personhood and what separates humans from other kinds of agents, fitting into Taylor's broader philosophy rejecting naturalism as a reductionist perspective of human behavior. At its simplest, Taylor suggests that an agent can be described as "a being who encompasses purposes, who can be said to go after, and sometimes attain goals," and that having "behaviour which meets a certain pattern in a regular way doesn't amount to fulfilling the purpose of realising this pattern." Yet often it seems as if this rudimentary conceptualization of personhood is enough for user research; it can be argued that most, if not all, tools for market analysis are focused on high-level, observable behavior that directly pertains to the particular user need that the product is trying to fulfill. Can a more refined definition of personhood, or what we consider as the user, improve the way in which we execute human-centered design? Taylor describes how others have suggested that human agents could be defined as having a certain degree of "complexity" and "consciousness," such that humans have relatively complicated goals and that humans are self-aware of these goals. For Taylor's purposes and for ours, this is not particularly helpful, as complexity and self-awareness of goals is somewhat antithetical to the user research principle of synthesizing underlying trends from the complex responses of different users to draw overarching patterns about the user experience. Taylor proposes the need to establish a "hierarchy of privilege" of actions taken by an agent, so that motivations for human actions can all be stripped down to certain intrinsic purposes and humans can be considered "beings for whom things can have significances... a highly general term... so that we can say not only agents' purposes, but also their desires, aspirations, feelings, aversions, (and) emotions represent different ways in which

things have significance for them." Taylor further narrows the definition such that uniquely human significances are those that involve "strong evaluation," or the "recognition of goods which are seen to be intrinsically worthy, that is, goods or ends which are not valued insofar as they are objects of choice or desire, but rather seen as ends we should seek." This is in contrast to the consciousness view of personhood, which "takes no account of significance" and values content as "either neutral fact, or at best... in the significance they have for us as sub-personal agents, as living or sentient beings." Thus, by defining humans based on the human tendency to develop intrinsic motivations and values that guide their actions accordingly, Taylor develops a rich foundation upon which human actions can be analyzed, compared, and contrasted, not only in terms of their outward characteristics, but in terms of the significances they represent. There are hints of this tradition already in user research, as two users need not express the same outward opinion in order for user researchers to identify patterns in the reasoning behind these opinions. Still, Taylor's framework emphasizes the importance of understanding human significances as underlying threads between disparate users' experiences, and can reveal further insights about how we should treat human significances as user researcher.

For instance, Taylor concedes that "there is something irredeemably opaque about any range of significances for those who don't share them." Empathy, in the sense of fully understanding another person's motivations and aspirations, can be nearly impossible — so what should user researchers do when they are fundamentally unable to understand the significances of their interviewees, and how can they recognize that this is happening? Taylor suggests that this problem leads researchers and philosophers toward "materialism," which he defines as "the instinct... to ground explanation in the vital, since this is both free from evaluative dispute, and susceptible of grounding in physical criteria." This, however, is nothing more than an "attempt to

finesse the characteristically human significances... for these are central to human motivation, central even to how our vital needs are conceived, as they are conceived differently from culture to culture." Taylor rejects the explanatory power of materialism because it does not account for the minute differences in how different kinds of people perceive the world, even if they are ostensibly driven by the same basic vital needs of any living being — without accounting for these differences, analysis of human behavior is incomplete. Furthermore, the challenges tackled by the technology industry can often fulfill specific niches that stretch beyond the fulfillment of basic human needs, and such challenges require careful consideration of the user not only as an agent that desires convenience, wealth, and nourishment, but also as an agent with unique cultural and moral beliefs. For example, let's say that we were prototyping a food delivery app that would make it more convenient for users to order from local restaurants, and that we were planning to launch in Lower Manhattan. It would not be sufficient to say that users enjoy the convenience of ordering food, and that they order food because they need to live. As user interviews would likely reveal, how might the cultures or socioeconomic statuses of the users affect the types of restaurants that they order from? Do users feel a desire to support local businesses, or sample foods from a variety of cultures given the abundant ethnic diversity represented in Lower Manhattan? Could users perhaps feel bad about eating out too often? Community, altruism, frugality — these are all human significances that could theoretically be reduced down to easily analyzable patterns, but nevertheless hold unique implications in themselves. And if user researchers cannot fully grasp the experience of holding these significances — or the unique ways in which these significances impact users' lives — then how can they account for these significances in the product?

Human-centered design offers the solution. By inviting those from target communities to co-design and actively participate at every step of the product development process, and by regularly iterating through prototypes according to agile methodology based on community feedback, more voices can be represented. Co-designing can also conveniently accommodate the need to recognize Hacking's argument that each category has its own history. Consider the following recent, real example of effective human-centered design in government technology, the details of which have been hidden for confidentiality: a somewhat understaffed government agency running Zoom events for elderly LGBTQ people must figure out a faster way to take attendance at each meeting. Someone suggests, "Why not take a screenshot of the page and deal with attendance afterwards?" As it turns out, this would not have been a viable solution because older LGBTQ people value their privacy more than might have been expected, as a result of growing up at a time during which outing oneself as LGBTQ by joining such meetings would have been considered far more dangerous. Such category-specific historical factors can often be more easily recognized by those who fall under such categories, those for whom the act of identifying with these categories can have real consequences on their lived experiences.

To clarify, selected co-designers cannot just be people who fit a few pre-defined labels; they must share the range of human significances that are common within, and arguably define, their communities. Yet this presents a seemingly intractable problem: how do we identify such participants if human significances are so difficult to capture? There is no quantifiable metric that can perfectly encapsulate the degree to which a person understands the experience of being Black, or a New Yorker, or Jewish. Even more easily measurable categorizations, like "low-income," cannot be directly quantified without qualitative judgments; are the insights of a person earning \$5,000 per year more representative of the significances of low-income people than

those of the person earning \$10,000 per year? Taylor states that there is a "built-in mistrust of (human significances) in our scientific tradition," partly because "science in our dominant tradition sees itself as value free, as capable of inter-subjective validation and agreement regardless of value differences," and partly due to the belief in reducibility of significances into vital needs. I would argue that a similar mistrust exists in the technology industry, where the instinct, especially on the business-side, is to base all decisions on clear, irreducible metrics. Yet social impact, by nature, cannot be value free. The very act of claiming to fulfill a user need for a particular community should imply that one cares about that community and the wellbeing and values of its people, beyond their roles insofar as they are paying users of one's product, and the best way to understand the values of a community is to account for human significances even if they are not straightforward. And when a user researcher invites a member of the target community to co-design technological solutions, a critical component of the human-centered design process is an often-unspoken trust that the community member can accurately speak about the human significances embodied by their community, and that the user researcher cares enough about these significances to embrace them in the product, even if the researcher does not — or cannot — fully understand the lived experiences that underlie these significances.

And how should this trust be expressed? A few indirect indicators may include a company's business model, social impact, and work environment. However, often the most transparent indicator — at least, what might appear to be the most transparent indicator — can be the language a company uses, which is rendered most succinctly in its mission statement. According to Taylor, "language makes things clear in two ways: it brings them into articulate focus, and it brings them out into public space... or a common vantage point from which we survey the world together," which establishes "the peculiarly human kind of rapport, of being

together, that we are in conversation together." To Taylor, the human capacity for language is essential for human significances, because in order for one's actions to be deemed moral or immoral, regardless of what one's moral philosophy may entail, there must be some mechanism by which there is a common understanding of moral standards, and language fulfills this niche. Few processes can so readily convey a company's openness to embracing the significances of its target audience save for the ability to articulate a precise mission statement with active consideration of community input through careful application of human-centered design — it is thus a responsibility for companies' mission statements to be illuminating rather than obfuscating. However, this is often not the case. When discussing the role of human-centered design, agile methodology, and UX research in a company's workflow, the language can be so inundated with buzzwords such that the entire purpose of human-centered design is lost, whether intentionally or otherwise. And when the focus becomes the jargon rather than trying to understand the lived experiences of communities that are harmed by systemic inequalities, this pattern further heightens barriers to entry into the technology industry for those from marginalized communities, and perpetuates a cycle of classism by which only those who are already "experts" can understand the product development process, which is exactly the opposite of what human-centered design is supposed to accomplish. In the same way as Taylor uses the notion of language to consolidate the distinct components of his theory of personhood, we can conclude that companies following human-centered design in order to create solutions that combat systemic inequality have a social responsibility to articulate the values that drive their work, identify the communities with whom they are co-designing, and contribute to the public discourse surrounding the user need that they seek to fulfill.

I must clarify a few details. Most glaring, perhaps, is that I have staked my entire argument on the teleological assumption that companies seeking to use human-centered design genuinely care about the communities for which they are designing. It is beyond the scope of this argument to examine the ethical implications of a company driven solely by profit, or the degree to which alternative incentives may exist in the technology industry; for instance, an argument can be made that despite the potential for effective human-centered design to directly transform the status quo, an alternative approach may be to generate profits from privileged customers and reinvest in underserved communities afterwards, an idea that exhibits parallels to trickle-down economics and that is embraced by companies that concentrate all their social impact considerations onto a few select projects rather than their overarching service or product. However, any company that claims to use human-centered design should be aware of the transformative power of technology to impact real, human lives with identities and complexities and significances — and there is a unique opportunity to reverse proven patterns of systemic inequality by co-designing solutions that are accessible, democratic, and equitable.

Much like any systemic issue, the onus cannot be entirely placed on any particular product manager or company to adjust their workflow to more effectively use human-centered design as a tool for social change — yet individual action is how systems change. In the appendix, I have offered a set of questions that may be used to interrogate the degree to which a workflow effectively incorporates human-centered design from an ontological perspective. I hope that these questions can help more concretely materialize the process of humanizing the user and empowering the communities that they represent.

Appendix

Questions and Guidelines for Socially Impactful Human-Centered Design

These questions, based on Ian Hacking's theory of categorization and Charles Taylor's theory of personhood, may be asked to determine the degree to which your workflow effectively uses human-centered design to humanize the user and understand their needs.

Market segmentation:

- What categories of users comprise your target audience?
- Do you personally belong to these categories?
- What are your personal preconceptions and biases about people of these categories?
- What are the social, political, and economic histories of these categories? How might these histories impact the way in which these users interact with your product?
- Are user research interviewees representative of their categories?
- What categories do your user research interviewees identify most closely with, versus the categories that have been assigned to them by you? If there is sufficient divergence, how might this disconnection impact the way in which users interact with your product?

Co-designing with communities:

- Are you using agile methodology and incorporating user feedback at each step of the product life cycle?
- Are the patterns you notice from user interviews grounded on basic human needs instead of users' significances (values, aspirations, etc.)?
- Do users' categorizations impact their significances, and if so, how?

- Do you share users' range of significances, and if not, what is the process by which you identify and invite co-designers who do?
- How might users' range of significances impact the way in which they interact with your product?

Language:

- What is your mission statement?
 - Does your mission statement clarify company values?
 - Does your mission statement emphasize direct collaboration and communication with your target audience?
 - Do the ideas espoused in your mission statement bring your company into the public discourse surrounding the user need in a meaningful way?
 - Does your mission statement use excessive jargon?
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These questions may be used in conjunction with other resources and guidelines for effective human-centered design, including but not limited to:

- [What Is Human-Centered Design? \(by IDEO\)](#)
- [What Is Human-Centered Design? \(by DC Design\)](#)
- [GOV.UK Service Manual](#)
- [Ontario Digital Service User Research Guide](#)
- [Product Management Learning List for Government](#)
- [Asking the right questions to frame the problem](#)
- [9 Empathy Exercises that Help Product Teams Improve CX](#)

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