An Ethical Logic of Design Practice

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ABSTRACT
Reflecting on research with a range of underserved populations I propose that we champion the value of design as the material realization of new possibilities, but at the same time work toward putting design practices on a more solid ethical footing.

Author Keywords critique; design ethics; rural; Ghana; California

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

INTRODUCTION
My research has brought me into conversations with a range of underserved populations. The group I came to know the best were young twenty-something men in urban Ghana who found their way online and once there, sought to realize and recreate themselves aspirationally. I spent time from 2004-2010 . In my 2012 book Invisible Users: Youth in the Internet Cafes in Urban Ghana [2] I ventured no design recommendations, but instead wrote about what happened to these young men online as they used systems designed for consumers and for markets that they were not a part of. In the early 2000s, Africa-based Internet users were unambiguously "underserved" not simply because of 'digital divide' issues of access, but because experiences, services, and environments online were based on a set of assumptions that meant they worked poorly for many Ghanaians. The experiences young Ghanaians had online revealed a cyberculture with norms and expectations they did not have the opportunity to shape. This culture wasn't particularly eager to embrace their contributions and many young Ghanaians found themselves banned, blocked, their accounts closed down and in other ways excluded. In the long-term only a few realized what they hoped to find online – global friendships, travel visas, a spouse, a scholarship, a philanthropic donor or business partner.

Toward the end of the project I began to see that there were

still more marginalized populations fueling and gaining from the Internet café businesses proliferating in Accra. Recognizing that these Internet cafes were largely stocked with second-hand computers, I began to wonder about the people who were importing these machines and how they were sourcing them. In the way secondhand computers were supplied to Ghana, I found a kind of aftermarket design work, an activity that was not deemed to be 'design' at all. In fact, as time wore on, this creative and entrepreneurial work by Ghanaian transnationals in certain cases became criminalized by skewed and euro-centric understandings of waste and repair [4].

At the end of the lifecycle of these imported secondhand computers, another marginalized group came into focus -- the scrap metal collectors. They "used" these computers in radically different ways, but nonetheless made a living off of them. Ultimately considering how notions of "design" are defined in a way that excludes those practices available to marginalized groups – such as repair, refurbishment, reappropriation, adaptation, often activities cast as "misuse" that make machines suit their needs. Considering importers, and scrap metal collectors completely reoriented my attention to implicit definitions of design and use. Furthermore, marginalization within Ghanaian society became more apparent as I broadened the scope of the project to look beyond interactions at only the screen interface. Accra's scrap metal collectors are largely migrants from the north, part of a Muslim minority, and often do not speak English or Twi the language of the majority Akan ethnic group, and the lingua franca of urban Ghana. Language issues in particular circumscribe their ways of engaging with a computer, but clearly don't exclude them from finding value in such machines.

Recently, I have begun work in rural California looking at how geography (low population density, road networks, economic underdevelopment, market marginality) defines 'rural' populations in the US as another underserved population. This has brought me into conversations with a variety of groups. However, the loudest and most insistent voices, those who are calling for and mobilizing to achieve better Internet connectivity, are relatively more affluent, more educated, middle-class and white. The Mendocino county coastline is home to retirees and many formerly urban professionals who relocated from the Bay Area and LA. Again heterogeneity and degrees of marginalization within a community have proved critical to consider. The work to reach other important populations has required special recruitment strategies. In particular to find and speak to

Native Americans, Latinx, sufferers of EMF sensitivity, agriculturalists including some working in the black market pot-growing industry has meant working contacts in carefully cultivated social networks, and protecting limited research time by turning down invitations to chat with more available individuals and groups.

IN DEFENSE OF DESIGN

In an article where I defined a "material ecosystemic approach" to design [3] my goal was to champion the value and necessity of design and to work toward a more solid ethical footing. This meant offering concrete recommendations around practice that would avoid paternalistic, top-down interventions and efforts driven by latent neo-colonial impulses. This was, in part, a response, to the sort of blanket critiques of design and intervention work lately slapped especially in STS circles with the label "solutionism." I see this as a sign of intellectualism at a great distance from building and implementing communities whose diversity gestures to much broader possibilities of design.

On the question of how to do design for the underserved, to design for social good or for socio-economic development I wanted to form a bridge between theory-oriented fields like sociology, anthropology, information systems/science, and design and implementation-oriented fields like HCI, computer science, and system engineering. Some of the insights about how to do this came from my own fieldwork-based realizations as noted above, that definitions of design, in the first place, were often simply too narrow. But then how might that be incorporated into a design process? Broadly, the value of design is in the material constitution of new possibilities. Design is, "devising courses of action aimed at changing existing situations into preferred ones" [9] towards bringing about 'development' (in the broadest possible sense) as "good change" [5].

Karen Barad argues for a return to critique that includes "reading with *care*" as a fundamental element [1]. The notion of care links to ideas about repair, restoration, preservation that are being newly reconsidered by many [7]. She contrasts this with a kind of habitual critique that functions as, "a destructive practice meant to dismiss, to turn aside, to put someone or something down." Instead critique in its best form is a "deconstructive practice, **a practice of reading for the constitutive exclusions of those ideas we cannot do without**." And while generally the 'reading' intended by Barad and many others is of written texts, and perhaps art works, I extend this argument to reading (and interpreting) designed artifacts, systems, and programs. Perhaps we could say despite many critiques of the implicit assumptions in mainstream design practice, that design is an idea we cannot do without,. There are those threads of design work and practice oriented by values other than the most dominant ones which may be solely market defined and market driven.

So here, in a pithy format is a set of guidelines or recommendations for an "improved ethic of design" that I want to put forward.

An ethical logic of design practice:

(a) requires methods of design research or needs assessment and project evaluation that account for the agency of users (and other actors beyond the formally legitimized 'designers' or developers or design team) and that supports and amplifies that agency through further design iterations.

(b) dispenses with mere adoption or uptake of a technology as the primary marker and measure of project success

(c) deprivileges "technology" in design processes by considering whether low-tech or no-tech possibilities that address apparent needs would work better [6] and

(d) routinizes the consideration of harm (not only non-impact) in project evaluations

The first item on the list points to insights I described above about the problem of agency-denying boundaries enacted when 'design' is defined in too circumscribed a manner (i.e. as a practice of skilled, trained, educated experts within limited, legitimized institutional settings). Certainly participatory approaches are evoked in this description, though the idea goes beyond initial stage collaborations. The other points (b)-(d) reflect a needed modesty in approach, a skepticism about easy equations between "technology" and solutions to intractable social . These critiques are well established in Science and Technologies Studies (STS), but run counter to a widespread strain of Western thought that treats "technology" as connoting an inherently progressive force [8], as something that effects impacts unidirectionally (but for the irrational resistance of luddites).

This short list is a start, but there are many things to consider. It is weighted toward the front-end work of project development and making design decisions. Other ethical considerations highlighted by others include matters of project sustainability. What if communities come to rely upon a new service that was only intended as a pilot? I hope my participation in this workshop will allow further discussion of how design can be ethical beyond established notions of 'listening to users' and being "human-centered". Demands of working with underserved populations go much further.

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