Empowerment Design Work:
Building Participant Structures that Transform

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Abstract: In this manuscript we describe our "*empowerment design*" work. Instead of simply building an artifact to help an individual accomplish a particular task, the focus of empowerment design work is to develop socio-technical structures that empower individuals and societies more generally. Essentially, empowerment design is designing with heart. It is a complex work that involves bringing together multiple and even opposing agendas, acknowledging different voices, and even working through unintended consequences and confusing struggles that have no one clear answer. Here, we describe an empowerment design initiative that overtly attempts to transform a culture and empower those it serves by way of a technology-rich educational innovation called Quest Atlantis. While the project is currently situated in various informal and formal learning environments, much of the data in this account is focused on our collaboration with a local Boys and Girls Club that serves disadvantaged children. However, empowerment design requires going beyond the initial site of innovation, and therefore we also bring in data based on our work with teachers and additional sites so as to communicate the complete cycle of empowerment design.

Introduction

Ethnographic research is traditionally discussed as entailing such elements as field work conducted in natural settings for extended durations, a "thick description" reflecting the context of activity, and a concern for understanding events from the perspective of those being researched (Geertz, 1976; Marcus & Fischer, 1986). As a practice, ethnographic methods have been indispensable to uncovering and exposing much of the world's cultures and helping us to understand both similarities and differences among people. Still, criticizing such "basic" anthropological research, many current ethnographers advocate the social consequences of their work through what might be labeled "applied" or "critical" anthropological research, intent upon exposing unequal power structures within the domain of the study (Freire, 1973; Levinson, 1998). Critical ethnography takes a step towards bringing a transformative agenda to the more value-neutral, traditional ethnographic or anthropological approach. The critical ethnographer seeks to construct understandings with an ideological lens aimed at uncovering, exposing and deconstructing power structures that serve to subjugate a segment of a population (Glesne, 1999). Critical ethnography, then, seeks to empower the people it aims to understand. However, while critical ethnography embraces a social commitment or "critique" and, as such, some might argue has value added over traditional ethnographic accounts, it does not usually package this critique in a manner that can be used by others who were not part of the site in which it was developed, thereby limiting its potential impact.

This notion of packaging concepts, ideas, or strategies into tools that others can use is central to the work of instructional designers. Informed by critical ethnographers and action researchers, and with an appreciation for the value of adopting a participatory posture, many instructional designers are currently employing a participatory design approach with the belief that such an approach will result in more useful design outcomes (Barab, MaKinster, & Scheckler, in press; Sanday, 1998; Schuler & Namioka, 1993; Schwen, Godrum, & Dorsey, 1993; Wasson, 2000). Participatory design encourages the reflective practitioner to evaluate usability in realistic, authentic contexts rather than in artificial laboratory settings. Unlike critical ethnography, participatory design results in an artifact that can be used by multiple users, many of whom occupy contexts other than that of the initial design effort. However, participatory design does not necessarily embrace an ideological lens with a focus on actualizing a social commitment—a central purpose of critical ethnography. It is our belief that by bringing together the efforts of designers, critical ethnographers, and action researchers we can more usefully integrate these powerful methodologies to implement altruistic agendas with the goal of making the world a better place. We refer to this synthesis focused on the design of socio-technical structures that transform individuals and those contexts in which they function as "*empowerment design*" work. The goal of this type of work is to develop a design that can actually support the user (and the culture) in his or her own transformation. However, the act of improving the world is a messy business, with numerous struggles, opposing agendas, and even unintended and controversial consequences. It involves extended time commitments, balancing tensions, and implementing tentative solutions to problems that have no clear answers.

This process of doing empowerment design work positions us as *design ethnographers*, enmeshing ourselves in local contexts so that we can work collaboratively with those people who transact with these contexts, in order to develop and actualize social commitments. Whereas the basic ethnographer describes and interprets a particular culture and the applied or critical ethnographer has the added focus of critiquing and changing the local power structures of the culture, the design ethnographer goes one step further; working collaboratively to develop and reify this critique and change process into a designed artifact and an accompanying process description, with the hope that it can support the transformation of peoples at other sites. As such, being a design ethnographer and carrying out empowerment design work involves more than simply empowering one context but actually reifying the social commitments and emergent critique into an artifact that can be used by people in contexts beyond those in which the initial ethnographic work was carried out. This, then, speaks to the critical notion of *scaling up* these artifacts or educational initiatives so as to foster positive change beyond the initial site of innovation. While described more fully below, as a brief overview empowerment design involves four components:

- Developing a "thick description" of one context
- Developing a series of social commitments that have local and global significance
- Reifying these understandings and commitments into a design
- Supporting scaling out and local contextualization

As one example of empowerment design work, the Fifth Dimension is an after school program that engages learners in educationally meaningful play by using computer programs and games, held together by an over-arching make-believe activity system that transforms the way individual games are experienced by the children (Cole, 1986). Though Cole (Cole, 1996) and others found that the transient nature of after-school centers creates struggles in the creation of sustained participation, the Fifth Dimension program is considered highly successful, positively impacting dozens of sites across the nation and overseas. One advantage of the Fifth Dimension work is that it does not take a top-down approach and instead a bottom-up structure makes it very amenable to scaling out as the structure is easily re-translated in new contexts. While Cole's (1996) work does involve research around an artifact, his utopian methodology does not articulate the process through which one moves from empirical observation or even an ideological position to the design of an artifact. However, this work and especially their meta-game structure, their balancing of education and play activities, and their notion of a Fifth Dimension site have contributed much to our thinking.

The empowerment design process, while benign in theory, is a complex business that gives rise to power struggles, controversial issues of intentionality and ethnocentrism, as well as conflicting struggles around ownership. In this paper, we describe an empowerment design initiative that overtly attempts to transform culture and empower those it serves by way of a technology-rich educational innovation called Quest Atlantis (see http://atlantis.crlt.indiana.edu). While the project is currently situated in various informal and formal learning environments (called Centers), much of the data in this account is primarily focused on our initial collaboration with a local Boys and Girls Club that serves hundreds of disadvantaged children each day. However, empowerment design requires going beyond the initial site of innovation, and therefore we also present data based on our work with teachers and subsequent sites so as to communicate the complete cycle of empowerment design. Lastly, we relate the Quest Atlantis example to the challenges of doing empowerment design more generally, highlighting our struggles and relating them to the broader literature and our other work so as to aid others in interpreting and relating our work to their local contexts.

Context of Our Empowerment Design Work

Empowerment Design work, while focused on impacting multiple sites, must begin with a deep and extended commitment to one initial site through which the initial design work is carried out. We have come to think of this initial work as serving a "mutable platform" through which other relationships can be nurtured as they come to transact with the design. At the same time as this initial design work must be grounded in the local immediacies of the generator site, it must also be informed by the needs of the other contexts it will serve. In our case, our design work began at a local after-school center (see Barab, Thomas, Dodge, Newell, & Squire, 2002) and evolved through discussions and workshops with teachers and principals. Consistent with the purposive method of sampling (Schwandt, 1997), we selected the Boys and Girls Club because it was conveniently located and representative of future contexts of interest, and because the staff had a strong interest in implementing the eventual design.

Elsewhere we have provided a more in-depth account that highlights issues of trust, power, ownership, and intentionality and the struggles inherent in introducing a change agenda while maintaining a respectful stance so as not to alienate those with whom we were collaborating (Barab, Thomas, Dodge, Newell, & Squire, 2002). The focus here is on understanding the more general process of design ethnography and not simply the challenges associated with

developing a relationship with a particular site. As such, though this account will focus on the initial context (a local Boys and Girls Club), we will also draw on data from our school-based workshops, meetings with teachers and administrators, and other sites of implementation to illuminate empowerment design work in practice.

Quest Atlantis: Our Technological Innovation

One of the most exciting developments in interactive electronic entertainment has been the popularization of persistent virtual worlds (often referred to as Massively Multi-Player Online Role Playing Games), such as Everquest (www.everquest.com), Asheron's Call (www.asheronscall.com), and Ultima Online (www.ultima.online); these particular worlds support tens of thousands of users each day. These environments grow out of the tradition of Multiuser Dungeons (MUDs), or text-based environments where players collaborate to solve quests, engage in combat, create virtual identities, design the environment, or simply participate in text-based chats (Bartle, 1996; Kollock & Smith, 1996). Koster (2000) argues that persistent virtual worlds are defined by (a) a spatial representation of the virtual world, (b) avatar representation within the space, and (c) a sandbox in which to play, offering persistence for some amount of the data represented within the virtual world. These environments frequently provide a meta-context through which participant behaviors are given meaning.

A core component of role-playing games is that the user assumes a role within the game context. In role-playing games, the person's attributes persist from one session to the next and are saved within the user's avatar, that is, a virtual placeholder symbolizing the user's identity in the virtual space and allowing the user to interact with the environment (Koster, 2000; Turkle, 1995). In Quest Atlantis, the child is assigned the task of using the virtual environment and responding to the associated Quests so as to help the Council of Atlantis restore lost wisdom. The Quest Atlantis storyline, associated structures, and policies constitute what is referred to as a meta-game in the commercial gaming sector. Specifically, the Quest Atlantis meta-game consists of several key elements:

- A shared mythological context that establishes and supports Quest Atlantis activities
- A set of online spaces through which children, mentors (local staff, older children, or teachers), and the Quest Atlantis Council can interact with each other
- A well-defined advancement system centered on pedagogically valid activities that encourage academic and social learning
- Regalia and rewards associated with advancement and wisdom
- An individual home page for each child, showing their advancement and serving as a repository for their work

Through this meta-context, Quests and member behaviors are targeted and instilled with meanings, with its primary function being both structural (providing a cohesive framework) and motivational (providing an engaging context to stimulate participation and learning). However, in contrast to traditional role-playing games, one's game identity and activity in Quest Atlantis are dependent on the Quester's ability to leave the virtual environment to accomplish Quests in the physical world.

At one level, Quest Atlantis is a multi-user virtual environment that immerses children in educational tasks as part of an online adventure to save Atlantis from an impending disaster. However, rather than conceptualizing the Quest Atlantis project as a computer program, Quest Atlantis might be best seen as a virtual space designed to support an online as well as face-to-face community. Building on strategies from online role playing games (Koster & al, 2000) and what we have learned from our more educationally focused work (Barab, Kling, & Gray, in press; Kim, 2000; Smith & Kollock, 1999), Quest Atlantis combines elements of play, role playing, adventure, and learning, allowing members to virtually travel to three-dimensional worlds where they select developmentally-appropriate Quests (engaging curricular tasks), talk with other Questers and mentors, and build virtual persona (Bers, 2001; Turkle, 1995)(see Figure 1).

Figure 1. A screenshot from the 3-D version of Quest Atlantis showing a scene from a village on the left and the homepage for a Quester on the right.

Doing Empowerment Design in Practice

While the process of empowerment design will necessarily entail a unique set of challenges and opportunities in each particular context, our thinking and experience has led to our current understanding of empowerment design as involving four interrelated components that together provide a mutable platform for others engaged in this type of work. Additionally, cutting across these components and serving as a necessary underpinning for our work are trust and mutual respect, which serve as foundations of empowerment design. These two lie at the beginning and the end of any relationship that seeks to empower, instruct, inform, or nurture. Indeed, as Valenzuela (1999) writes, "trusting relationships constitute the cornerstone of all learning" (p. 263). As one instance of empowerment design, we will use our experience with Quest Atlantis to illuminate the four components and

situate our discussion in terms of an actual intervention. Elsewhere we discuss in detail the challenges of establishing trust when one is an outsider and has an agenda (Barab, Thomas, Dodge, Newell, & Squire, 2002) and the features of Quest Atlantis more specifically (Barab, Thomas, Dodge, Squire, et al, 2002). Here, we discuss trust and Quest Atlantis, but only in relation to how these illuminate the struggles and opportunities of doing empowerment design work.

We have come to consider empowerment design as consisting of four interrelated components, which, while somewhat sequential and stage like, are also recursive and transactive with work related to each component opportunitistically being brought into the process as is relevant. First, empowerment design involves the building of a "thick description" of the initial context of innovation so that the team has a rich understanding of the context and culture under investigation (Geertz, 1983). Core to this process is establishing trust, which in our case initially involved such utter enmeshment with the local context that the boundaries between "us" and "them" dissipated. Consistent with critical ethnography (Delgado-Gaitan, 1993; Freire, 1970; Levinson, 1996), the next component involves using this evolving understanding of the local context and associated problems to develop a critique and resultant social commitments. It is at this point that the change agenda begins to take shape. However, we have found that a necessary feature of developing social commitments is to bring in diverse voices so that local concerns and commitments have what Geertz (1983) referred to as experience-distant significance. This is necessary because as we scale up, we will not have the luxury of becoming enmeshed with each potential site of implementation, and therefore we need to design in a way that maximizes the likelihood of our intervention having cross-site significance.

The process of reaching out beyond the initial site of innovation is especially necessary as one engages in the third component focused on design; this involves reifying the critique and commitments into a designed artifact that will be of value to multiple sites. The final component, scaling out, involves working with the design from the initial site of innovation to gather data and make design modifications, with the goal of having a design that can be used effectively at multiple sites. It is important to note that the components presented here are thematic groupings that, though qualitative in nature, arose through team discussions and multiple writings; moreover, they balance the criteria we deemed necessary: the components are useful, illuminative, comprehensive, and parsimonious. Below we present discussion on each of these components, though space limitations require us to relate only highlights. It is important to emphasize that these components, while building off each other, are not intended to constitute a linear approach and that the design itself should not be treated as a prescription for design.

Component I: Building a Thick Description

Empowerment design begins with building an ethnography of the initial site of innovation. The purpose of ethnography in terms of empowerment design work is to provide an empirical base upon which to ground initial design work. In our case, initial over-confidence led us to believe that we roughly knew the desired outcome for our effort and that we simply needed to work with an after-school context and some classroom teachers so they could provide and validate data in terms of the value of the design. As it turned out, a series of events compelled us to postpone design work, so we spent more time as ethnographers in the initial phase of this work than we had originally intended. To our benefit, this sustained and deep investigation resulted in the development of rich relationships with those whom we then thought of as our "research subjects" and whom we now think of as our "collaborators"; it also resulted in a grounded appreciation of their actual needs and interests—as opposed to our theoretical assumptions. This appreciation changed our initial conceptions: for example, instead of simply focusing on the development of a virtual environment for learning math and science, we became committed to the development of whole persons. We also uncovered much detail about the various life worlds of the groups for whom we were designing Quest Atlantis. Moreover, we became committed to empowerment design and to *designing with heart*. Quests, instead of simply supporting math and science learning, became targeted to the social commitments we adopted (described in the next section).

Beginning with the children, we learned about the television shows they liked to watch, the movies that interested them, which games they liked to play, and what and who was considered "cool." During the interview process (Glesne, 1999), we asked the children what they liked to do in school, at home, and with friends, and we observed them in the computer lab at the Boys and Girls Club. As much as possible, we tried to instantiate these interests into our design work: for example, children and especially boys liked trading cards of all kinds, and as such, we developed our own Quest Atlantis trading cards with the expectation that as students earned points by completing Quests, they could trade them in for cards. Girls liked story plots and characters, so we supported this with a rich backstory for our legend, and we worked to further develop the characters as well as the Quest Atlantis plot.

Component II: Developing Social Commitments

A second core aspect of doing culture work is the advancement of a social commitment. However, a challenge facing design ethnographers involved in culture work is defining the particular social commitment(s) that will be of most value to those the work is intended to support. While it is possible for an outsider to adopt a social commitment that will also be relevant in multiple contexts, we have come to believe that the social commitments for a particular project should be cooperatively uncovered and not simply imposed by the design team; we have come to appreciate that such a posture is indispensable to responsible instructional design. Our agenda springs from those for whom we design and for whom we seek to bring about change (Barab, MaKinster, & Scheckler, in press). Central to the process of developing social commitments is the integration of voice and interests from sites beyond the initial site of innovation. This process involved informal interviews, focus groups, and design workshops with current and potential stakeholders. The goal is to produce a set of social commitments that will have local meaning and experience-distant relevance and that can serve as a jumping off point for the subsequent design work.

Core questions for the design ethnographer are what constitute a legitimate warrant for action and how to decide which issue(s) should be acted upon. In our work, we found a few instances of misuse of power but more instances in which we responded to a problem identified through our examination of field notes, our interviews with staff and children, our reading of the literature, and our own personal commitments; indeed, to ignore the latter would be inconsistent with our responsibility to honor and leverage our team's diverse experiences working with children. Members of the team had different interests and so developed and pursued their own social commitments at the same time as they contributed to the team's overall focus. For example, one African American team member, through a conversation with a Caucasian child and in relation to a Quest, became aware that this child—in spite of having an adopted African American sister—had no understanding of the word "race." Accordingly, the team member explored the child's understanding, relevant literature, and discussions with teachers at potential sites, and embraced the social commitment of *diversity affirmation* while at the same time questioning whether her drawing attention to the concept ironically created a distinction in the world for a child who previously did not see the world as black and white. In our discussions about this and other events with the children, and with one another about the "9-11" tragedy, we came to realize that the affirmation of diversity is a critical component of any social agenda: by way of our differences, we are all made better. That same team member out of concern for the children's passive stance toward imposed rules, worked with many children to help them understand and advocate for their rights and reciprocal responsibilities, resulting in the *personal agency* commitment.

Another team member, in response to the lack of individual expression and in an attempt to help children come to see themselves in what they do advocated for *creative expression* as an important social commitment. Responding to a series of local environmental problems, another team member who worked with some teachers in a neighboring school created science Quests with a particular emphasis on prompting children to think globally yet act locally, instantiating the commitments of *environmental awareness* and *social responsibility*; the latter commitment came in part from an outside evaluator and teacher not part of the initial site of innovation. Still another member of our team, with a sensitivity to the weak connection between the Club and the surrounding community, and with an explicit interest in fostering community, focused on the social commitment of *healthy communities*. Finally, dedicated to promoting caring human beings, a member of the research team introduced the *compassionate wisdom* commitment. These commitments serve to underpin and guide our empowerment design work through what we have come to understand as "designing with heart," much in the spirit that Freire (1970) characterizes sociopolitical intervention as "an act of love."

Component III: Engaging in Participatory Design

Quest Atlantis was purposefully designed to foster the development of each of the above dimensions within and among the children who participate, not only through Quests targeted toward individual commitments but even in the functionality of the technical infrastructure of the program, for example promoting in the users a sense of responsibility to other members of the Quest Atlantis community. The commitments appear in other ways as well: they are evident in the animated movies and emergent plotlines through which Council members share their stories and communicate with the children; each dimension also has an associated "catch phrase" that pervades the Quest Atlantis regalia (posters, games, trading cards, t-shirts, stickers, stationary, etc.) and the Center walls. Based on our collaboration with classroom teachers, each commitment has also been the focus of a Quest Atlantis unit plan, a design addition needed to ensure the project's usefulness to teachers. Further, each member of our design and research team has made an explicit commitment to these dimensions, with the intent to integrate and exemplify them in the lives of the children and in their own lives—the latter being an important component of responsible culture work.

Aspects of the design, both form and content, also reflect our prioritizing multiple perspectives. The Quests, though connected to academic standards, are rooted in our social commitment and framed by the types of issues and interests that the children themselves have expressed. For example, as children complete Quests they can work to understand their own lives in terms of the movies, music, toys, and magazines that they view as exciting; more importantly, however, they can bring in stories from their own family and culture as material for legitimate reflection, not simply work with those introduced by a textbook publisher. Valuing multiple perspectives in empowerment design is also demonstrated by such Quests as one in which students can express their identities by constructing collages of magazine images or even their own pictures and artwork. The eclectic gallery subsequently forms an occasion for the Questers to practice tolerance, acceptance, and respect for their diverse perspectives.

Indeed, the wide variety of ways in which Quest Atlantis invites students to individualize their experiences may also be regarded as a manifestation of this thematic component in our design work. For example, within the virtual space, Questers may freely choose their activities (unless directed otherwise by a teacher if they are part of a Quest Atlantis class), from exploring the virtual space and pursuing Quests to building in the space and text-chatting with friends. Central to Freire's work was the notion of praxis, which he defined as "reflection and action upon the world in order to transform it" (Freire, 1970, p. 36). Characteristics of praxis include self-determination (as opposed to coercion), intentionality (as opposed to reaction), creativity (as opposed to homogeneity), and rationality (as opposed to chance). These characteristics figure centrally in our design work, not only in that children often choose in which activities to engage but, more importantly, in that they are treated as important contributors to rebuild the lost wisdom of Atlantis. This design work, and consistent with participatory notions of design (Schuler & Namioka, 1993; Wasson, 2000), evolved through interaction with children, parents and teachers overtime. In fact, we had multiple heated exchanges with our programmers who wanted all the functionality described up front, justifiably stating that continual emergent changes make the system unstable.

Component IV: Supporting Scaling Out

A complex but critical component of empowerment is scaling out. Some common obstacles to scaling out reported in the literature include lack of teacher buy-in, political complexity, variable support on the part of policy makers, political influences on project implementation, educational parochialism, resource shortages, and variability across implementation sites (Buechler, 1997; Elmore, 1996; Pogrow, 1998; Sumner, 1977). This fall, Quest Atlantis will be used in 10 schools in Australia, 3 schools in Singapore, 5 schools in the United States, and two after-school contexts. While we look forward to continued expansion, we are concerned that in the process of scaling the fidelity of the implementation will also diffuse at the expense of our social commitments.

Of paramount importance in the issue of scale is the notion that we must avoid rubber stamping "cookie cutter" versions of a program, artifact, or tool designed to bring about empowering change. Hegemonic structures such as these often fail for the seemingly obvious reason that they do not take into account local cultures, concerns, circumstances, power structures and personalities. As Geertz pointed out, "the shapes of knowledge are always ineluctably local" (Geertz, 1983, p. 4). Furthermore, the predictability that may come with ubiquity often results in unintended consequences such as poor quality, over simplified implementations, and even dehumanizing effects (Ritzer, 1998). Reminiscent of a biological organism, a program that is not flexible enough to demonstrate adaptability to ecological change may easily become extinct. However, too much change in local adaptation may result in what Brown (1992) referred to as lethal mutations of the design work. Our goal must be to develop flexibly adaptive curricular interventions that balance the tension between flexibility and fidelity (Barab & Luehmann, in press; Scharwtz, 1999).

Supporting children involves continual interaction, at times helping children type their responses, at times helping students interpret complex concepts like race and perspective, at other times reviewing their work in ways that will challenge their thinking, and at still others communicating with them in the online space in ways that will prompt them to get involved with community issues. For example, one child responded to a Quest with little appreciation for the meaning of *perspective*, though the core challenge was to adopt a different perspective; another child faced difficulty completing a Quest in which he was asked to interview his family, since this entailed serious issues with which he was reluctant to engage. In each of these instances, our supporting the children in Quest Atlantis involved engaging them in sensitive issues that in turn provoked and deepened our own social commitments. As such, the Quest Atlantis system spans beyond the mere technical structures, and accordingly this must entail ongoing support for the staff and teacher training at each local Center so that they are able to sustain the program and, moreover, embrace the underlying commitments.

Conclusions & Implications

The Quest Atlantis project has served as a useful vehicle for doing empowerment design: we have embedded our commitments in the Quest Atlantis myth and associated Council videos, in the Quests we developed, in the feedback we, teachers, and local staff provide as "Council" members, in the interactions that occur in the virtual space, and in our face-to-face collaborations as mentors at the Centers. Though clearly a challenging endeavor entailing the complex and power-laden concepts of empowerment and culture, doing culture work through design has become to us a rewarding, useful, and necessary activity. Empowerment design—the notion of working to transform individuals and cultures to make the world a better place—is a highly complex, situated, and messy type of work that requires engaging multiple perspectives and bringing together often conflicting agendas. In our work, we began as designers and then became ethnographers. We now see ourselves as design ethnographers, observing local contexts and building relationships centered on trust and respect—relationships through which we could develop an agenda and commitment grounded in the everyday needs of those our work was intended to serve. In the case of Quest Atlantis, this work resulted in a design that explicitly included multiple perspectives and could be useful to others at new locations. We view this process as organic and self-evolving, though unlike self-organizing systems we, at least initially, stay very much at the core in directing, stimulating, and facilitating the activity of the system.

We have argued that empowerment design work involves identifying, understanding, and transforming through design work the multiple activities, places, and social groups (socio-technical arrangements) with which individuals participate, and it involves understanding what participation in those various socio-technical arrangements means to the individuals. From an anthropological perspective, the notion of transforming the contexts under study already represents a significant leap from traditional anthropological accounts focused on description and interpretation. The next step of reifying this description into a designed artifact poses even greater controversy from the perspective of a critical ethnographer concerned with understanding and changing local power relations. Of central concern is the question of who has the right and proper perspective to critique another; further, even if one can make an adequate critique and intervention for a particular context, there is no reason to believe—and many reasons not to believe—that the local intervention will prove useful in another context for another "culture." However, it is our belief that the design ethnographer does not create the problem for another group but rather brings in his or her expertise to help uncover and illuminate problematic tensions that exist—problems that in our scaling work appear to have meaning to others at sites that were not a part of the process through which our social commitments and Quest Atlantis design initially emerged.

Empowerment design focuses on resolving specific problems or improving the functioning of a group, community, organization, or institution, with a commitment towards empowering participants to take greater control of their own lives. While we consider our work to be ethnographic, the goal of our design work is to extend the impact beyond the initial site of innovation. The extent to which a design developed in one context is then adopted and valued by individuals at other contexts suggests certain invariant properties in the world; in other words, local dynamics and participation is not totally idiosyncratic and "socially constructed." At the same time, though, imposing an intervention from the outside is neither good politics nor effective strategy. As such, designers must find a balance between appreciating global properties and situating these understandings in local issues: this challenge, essential to design ethnography, must be undertaken if we are to develop meaningful interventions that can bring about change more globally. We look forward to engaging in collaborations and reading accounts from our colleagues of their own empowerment design work, all of which will allow us to develop rich theory and improve local practice with the ultimate goal of making the world a better place.

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