
Collaborating with Communities in Africa: A Hitchhikers Guide

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Abstract

Designing, developing and deploying technologies with local African communities involves a rapport and trust beyond predefined and agreed upon project goals. Pursuing an agenda for community-driven development involves prioritizing and recognizing the role of community members as co-designers and co-researchers. Constraints on time, resources and differing protocols often hinder effective and sustainable collaboration with local African communities. This paper presents discussions started at an international workshop and panel about the key factors in building local community collaboration in Africa, as part of an accruing repository of empirically-grounded advice from local researchers, community members and designers with extensive community collaboration experience.

Author Keywords

Community collaboration; community development; co-design; HCI4D; developing countries; Africa

ACM Classification Keywords

J.4 SOCIAL AND BEHAVIORAL SCIENCES

Introduction

HCI practitioners increasingly navigate unfamiliar terrain to collaborate with marginalized communities in Africa. Their endeavors involve dealing with socio-

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cultural, socio-political and socio-economic issues in limited time and can produce decisions that increase distrust of outsiders, resistance or rejection of design solutions or solutions that can have long-term negative local impacts. Rarely, however, do we ask African researchers and the communities with which they are familiar for advice. In this paper we present key insights offered by researchers and designers from, or working in or with, African communities as a step towards collating their stories and experiences. We, as the organizers of the workshop and panel, distill issues raised in workshop and panel discussions at INTER-ACT'13, which explored approaches, challenges and opportunities in collaborating with/in local communities.

Theme Exploration

The one-day workshop consisted of 22 participants including five organizers. We started by discussing a case study on local versus external protocols (sidebar on next page). Then, we presented and discussed a theory-led approach to community engagement and then workshop participants collectively identified common topics to be elaborated. We then split all participants into the five topic groups according to their preference. The groups discussed: Building and maintaining trust; Values; Time; Expectation management; Theory building and Generalization. After about 15 minutes all grouped participants but one moved to another topic group and continued discussion of the topic. Participants documented their discussion on paper tablecloth that was presented to all at the end of an hour.

Five panelists from Kenya, Namibia, Botswana, South Africa and Australia discussed the topic of community collaboration. All African panelists were researchers in their countries and the Australian has researched ex-

tensively in/with communities in Australia, Namibia, Mozambique and, especially, South Africa. Two African panelists were members of rural communities in which research and design of technologies were done. The moderator was South African. The panelists raised issues related to respect, trust, communication, politeness, language, the use of titles and positions, signs of materialism, the different vulnerabilities of an outsider in a community and the conflicts all these create, and the ethos of "Ubuntu" [5] within communities and between researchers/designers.

Community-based Engagement Principles

Moving from the researched to the researcher

Panelists agreed that communities members would like to speak for themselves, tell their own stories and become co-researchers and co-designers of technologies. This involves moving from closed systems, where academic researchers are experts and research participants are subjects, to open collaboration and co-ownership of processes; such as in participatory or ethnographic Action Research [1]. It involves a shift in intent, where international researchers/designers facilitate but do not control processes.

We often encounter attitudes that focus on deficits not capabilities. For instance, designing for oral users can aim to compensate for text-illiteracy, rather than engage with the diverse practices of African oral culture. Such approaches constrain knowledge production and neglect opportunities to leverage sophisticated skills. Consider, for instance, how the Ubuntu philosophy (simplistically, "connectedness of all") scaffolds consensus-based decisions and communication practices that crowdsourcing does. Recognizing Ubuntu in research also involves reciprocal relationships that benefits both

Real-world conflict scenario

You and your team have been engaged throughout the day with members of your long-term rural community. One of the youth Y1 has been walking through thick sand with overseas researcher R1 all day (8 hours) carrying equipment. Four elders and four youth have been involved in a 30-min group discussion with R2. You have budgeted 1000 Rand community payments. R2, (30 year old man originating from the village and our fellow researcher) advises the following: 200 per elder, 40 per youth. He explains that elders must always receive more and he will pay them one by one himself as per his practices. R1, request to pay Y1 400 himself and 75 each of the 8 others, considering his build up bonding with Y1, the effort level and time.

community members and external researchers and “implies empowering participants in research ... and emphasizes unity or consensus in decision-making, and the processes that lead to decisions” [5].

Moving from design to co-design

All societies have the right to accept or resist products according to their cultural and social needs, values and meanings. A community’s reluctance to embrace the “beneficial” solution offered by an ICT developer can reveal tensions between respective perspectives on ‘progress’. To move towards co-design we must start to embrace ‘re-designing’ ourselves as much as we expect transformation in the community. Accepting communities as co-creators means relinquishing ultimate design decisions. Co-design can happen only once design methods and beliefs are as appropriable as the values of the community that we aim to support with technology [6]. This raises issues about power relations implicit in methods during design. For instance, some methods may be biased towards external meaning-making and external literacies and be less flexible than we intend them to be. Sometimes reframing a tool in a method may be all it takes to promote flexibility and local empowerment; for instance, using visual tools in probing rather than prototyping, as projects in Namibia for example have done successfully [6].

Discussion Themes*Conflicting Protocols*

To expose tensions that arise in decisions when local and researcher’s protocols conflict, workshop participants discussed a conflict that occurred around participants’ compensation real project (see side bar). Almost all participants felt that low compensation to a youth

(Y1) and differential compensation based on age were unfair. Some participants questioned the intentions of a researcher from the community (R2) in seeking to pay all group members one-by-one himself. However, participants with extended direct experience with different communities felt that R2’s word should be respected, as he was most familiar with his community. After some intra-group debate most other participants concurred with R2’s interpretation of community practice of paying the adults more than the youth based upon their age. However, the differential between adults and youth continued to be a discussion point. Suggestions to ensure fairness included reducing the size of the difference or asking community members decide for themselves. Participants further elaborated that discussing payment terms should be done with the right people before starting the project, rather than after, or that dealing with situations should be done on a case-by-case. In reality, the conflict was solved by following community norms and R1 paid the youth extra money from his personal money. Not respecting such norms would severe the trust that had built up over the course of the project duration. In other words, considerations beyond the single task participation had to be taken.

Building and Maintaining Trust

Communities embrace authenticity and humanness, and less so “the white savior” materialism or titles. Over time they accept researchers as part of the community and do not focus on their differentness.

LOCAL RESEARCHERS AS A BRIDGE

Local researchers are part of the local community and respected by the community. They know recent events in the community and can make sense of data generat-

ed in studies to bridge between the community and academic researchers. Local researchers are often taught basic research methods or can be a formally educated person with an advanced college degree. However, what is important is that their accountabilities align within the community not the research institution. Thus, we still need local researchers even if an academic researcher shares nation, tribe or language with a community but is not from the local community.

BUILDING TRUST

Researchers should gain an understanding of the socio-cultural context to enable collaboration with local communities [2]. Trust building can involve social activities to establish common ground (e.g. sharing meals); practices of reciprocity between researchers and communities (e.g. giving photos to community members); and, using familiar probes or metaphors to create interactive dialogue (e.g. cameras, mobile devices).

MAINTAINING TRUST

It is important for researchers to ensure that the local community understands their research objectives and to clearly identify local member's expectations. Trust can be based on sharing expertise with the researcher and community members. Listening openly to community members maintains mutual trust between the community members and the researchers. Some of the challenges include balancing conflicting requirements, accountability and getting informed consent. However difficulties were experienced at times when requesting written consent from community members. An oral consent was viewed as being sufficient form of research authorization and signing written consent brought a "feeling of mistrust" from local community members.

Values: Sustain versus Change

Technology can enable change but must be designed to support local values and thus technology should be designed to support, not cause the evolution. Consequently, design efforts aimed at effecting change in a local community should be initiated and controlled by the community itself [3]. Both panelists and workshop facilitators encouraged researchers and designers to respect existing values, customs and practices especially in situations where these may differ sharply with their own. The benefits of participatory design methods were reiterated as they allow local people to lead the research and design process and hence aptly maneuver any inherent socio-cultural issues [4].

Panelists also felt that recognizing local researchers by including them as co-authors is a way to show recognition even if it does not benefit them tangibly. Local communities also want to have to tangible results such as obtaining a technology solution or to specify what they need. Authorship on publications is also an ethical issue. According to academic authorship rules, those who made a significant contribution to the research, even if not writing must be included in authorship.

Time

Many external researchers do not invest in learning about a community as they feel that they "do not have time". This sends a clear message about their priorities that undermines establishing trust, shared understanding and, indeed, "user-centered" design. Often researchers attempt to accelerate engagement in communities by involving a "local". Such actions should be approved by local authorities, (e.g. tribal governors), as it is all too easy to involve inappropriate people, as an audience member illustrated. Involving researchers

with work and home identities in both research institutions and a community is valuable in articulating and translating tensions in time. An audience member asked for advice about the “minimum” duration required in the field given financial and other pressures to deliver “against the clock”. Panelists and workshop participants felt that researchers and designers should really immerse locally and invest in understanding the community before designing. However, a panelist from Kenya suggested three days as the minimum time spent in a community for more rapid approaches. Working with local researchers extensively before, during and after consultancy periods, is an alternative that also contributes to co-ownership for products and research results.

Foreign researchers familiar with clock-based time management [1] find it difficult to understand why a group has determined that an activity will proceed when “time is full”, or when “we are ready”. The absence of owning a watch or sticking to schedule does not mean societies do not have a concept of time or value time. Rather concepts and values relate to practices on which survival and cohesion depend. Many everyday activities, such as tending livestock, collecting resources (e.g. water), involve walking long distances which constrains time available for research activities. Often these activities involve practices that attend to social relationships and recognize continuities between past, present and future. In all the communities represented by panelists, ancestors play a role in current events in practices involve consulting their advice, appeasing them in ceremony and respecting the presence of their spirits. Thus, people appreciate connectivity between human lives, and this shapes the value placed in devoting time to talking. Accounting for local tem-

poral constraints in engaging in research activities and respecting the value of talking involves acquiring sensitivity to local priorities and communication practices [1, 6]. Immersion in local temporalities can help to embody local meanings about time and pace (e.g. rising at the same hour, walking at the same pace as local people [1]). Meanwhile, attending to linguistic and extra-linguistic cues is central to acquiring a sense of when people don’t want to be rushed or don’t have time to talk. However, as one panelist explained, it’s important we do not assume gestures and nuances of speech carry similar cultural meanings. People in rural societies often avoid expressing critique or inhospitality, so may not indicate boredom or frustration when they feel it.

Expectation management

Participants observed that researchers should also be very open about their research agenda and avoid “shopping expeditions”, which not only increase local expectations of payments from foreigners, but also perpetuate unhelpful power relations. It is critical that a community does not develop false expectations from research efforts. Some research approaches develop solutions for long-term community ownership (e.g. [1]). However, often community access is restricted within studies, experimentation and co-design, even when these are intended to afford them some benefits. The goal in the latter case is to develop concepts and exploit insights in products or service that are a scalable or delivered by a service provider. Community members may develop expectations of permanent access to the new concept, system, solution or a device we co-design and trial; and, removing access can leave them feeling betrayed and used. Thus we need to ensure that communities understand both constraints on deployments and long-term support and that updates

might not happen as technology changes. Workshop participants also asked what this meant for a community which was involved in developing a solution that was actually deployed in another, due to partner dynamics and funding challenges. Situations like this can result in communities losing trust in researchers and the only way to handle them is to keep key community stakeholders in the loop and make them aware of the constraints early on. As a result, they become partners to efforts and would understand issues that are beyond the researchers' control.

Generalization / Theory

To corporate or governmental investors the sustainability of concepts or solutions usually involves transferring and reusing knowledge. Thus, we explored ways to generalize and/or effectively replicate results, experiences and products from community interactions in different communities and avoid the 'forever pilot' syndrome. Workshop participants' contested the idea of *technology transfer*, by referring to examples when community members ridiculed and rejected icons and interfaces created by another community. Rather, workshop participants proposed that the 'process of arriving at a design and applying it for the community' might be generalizable and transferable by designers in different contexts. If community members are designers, they can mentor other communities in transfer processes. Given increasing communications infrastructure in developing countries this can now be done remotely. Rather than considering 'transferability' to refer to moving an implicit skillset fine-tuned for one context into another context, we focus on the process of transferring and adapting methods; perhaps, to motivate revival of transferable design patterns.

Conclusion

In this paper we compiled major discussions in a one-day workshop and a panel during Interact 2013 among a number of experienced researchers in the field. We offer guideline for designers building community collaborations to consult. These guidelines will be further explored and complimented with a repository of case studies and real-life examples from the field.

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